Apple iPhone with VoiceOver
Lesson 3 - Editing Text

This lesson has been designed for users of iPhone models which don't have a Home Button, in conjunction with the VoiceOver screen reader and iOS 18.2. For reference, models of iPhone without a Home Button that are compatible with iOS 18 are: XR, XS, XS Max, 11, 11 Pro, 11 Pro Max, 12, 12 mini, 12 Pro, 12 Pro Max, 13, 13 Mini, 13 Pro, 13 Pro Max, 14, 14 Plus, 14 Pro, 14 Pro Max, 15, 15 Plus, 15 Pro, 15 Pro Max, 16, 16 Plus, 16 Pro and 16 Pro Max.

iOS 18.2 has brought some amazing new features, including Apple Intelligence. It has also brought some cosmetic changes to the Operating System. Depending on how your iPhone has been configured, you may find some minor differences when working through the information provided in this lesson. However, it isn't anticipated that they will cause you much of a problem!

1.   Introduction

In this lesson, you will learn more advanced techniques for editing text inside Text Field items, and take a first look at the Rotor. By the end of this lesson, you should be able to:

- Navigate text and correct typing mistakes.
- Understand what characters are and what the Insertion Point is.
- Switch between Character, Word and Line modes.
- Explain the difference between Standard and Touch Typing modes.
- Create , edit and save notes.
- Select text for cutting, copying, pasting and deleting.

2.   Terms You Should Know

2.1   Characters and Strings

A character is a single letter, number or other symbol. For example, the word "iPhone" has six characters; I, P, H, O, N and E. This social security number, 987-65-4321, has 11 characters. The dashes count. The phrase, Welcome back, has 12 characters; 7 for the word welcome, four in the word back and one for the blank space in between. Even blank spaces count as characters! Put a bunch of characters together and you get a String. For example, the word "Hello" is a string of five characters. The title of the TV drama "24" is a two character string consisting of the digits 2 and 4.

2.2   Selecting Text

Text is selected by bracketing it with a beginning and ending point. Visually selected text usually appears in a different colour than the other text around it. Once text is selected, you can do things with it, such as copy it, cut it, paste it, capitalize it, or change the font and its attributes. All of the text is treated as a single entity rather than having to perform the action one character or word at a time. You will cover selecting text later in this lesson.

2.3   Deleting Text

Once text is selected, you can delete it using the DELETE key on the Virtual keyboard. Deleted text is gone forever. The only way to get it back is to retype it!

2.4   Copying Text

When you copy selected text, you make a copy of it in a hidden area of memory known as the "Clipboard". The original text is not affected when you do this. You can recall the copied text as many times as you want, until you copy new text to the Clipboard.

2.5   Cutting Text

When you cut selected text, you make a copy of it in the Clipboard, and remove it from the screen. The cut text replaces anything else that was in the Clipboard. You can then recall this text as many times as you want until you copy or cut more text.

2.6 Pasting Text

When you retrieve the cut or copied text from the Clipboard, you are pasting it. Pasting doesn't remove the text from the Clipboard. Therefore, you can paste the same text as many times as you want, until you cut or copy other text over it.

2.7 The Insertion Point

The Insertion Point usually appears as a blinking line or box. It flashes where your next edit will take place. VoiceOver refers to this as the "Insertion Point", but you may also be familiar with it as the cursor. Any edits in an Active Text Field, including deletions, take place at the Insertion Point.

2.8 Fonts

fonts are certain characteristics which are applied to letters, numbers and special characters. These characteristics might include a certain slant, the thickness of the characters, character spacing, straight edges instead of rounded and so on. Similar fonts are grouped into families such as Arial, Times New Roman and Tahoma to name but a few.

2.9 Text Alignment

Printed paragraphs can come in one of four alignments, as follows:

- Left Aligned: This is the standard for most text. The left side of each line in the paragraph lines up. The right side varies depending on the length of the words in the line.
- Centred: Each line in the paragraph is centred on the page or screen. The left and right edges of the paragraph vary.
- Right Aligned: The right edges of the lines in the paragraph form a straight line. This is most often used to make numbers line up in columns.
- Justified: This causes both the left and right side of the paragraph to form straight edges. This is done by adjusting the space between words in each line. It is most commonly used in newspapers, which use a multicolumn format for text.

3.   Editing Text with the Notes App

Getting Started

For your first attempt at editing text, you will use the Notes Application. If the Notes app is not open, please locate and open it now. Start by performing the Go to Home gesture. Slide Up with one finger from the bottom edge of the screen until you hear the second pop sound. This will place you on page 1 of the Home Screen grid.

- Use the Explore gesture until you find the icon and VoiceOver says, "Notes".
- Use the Explore gesture to go to the first item on the Home Screen, and then use the Next Item gesture, a One Finger Swipe right, until you have located the icon.
- Use the Read All from Top gesture, a Two Finger Swipe Up, and when VoiceOver says "Notes", use the Pause/Resume gesture, a Two Finger Single Tap, to stop VoiceOver and make the Notes icon the current item. You have to be quick. If VoiceOver passes the icon before you pause it, you can use the Previous Item gesture to go back to it.
- Activate the item Chooser with a Two Finger Triple Tap, and locate the Notes item in the alphabetical list. Then, perform a One Finger Double Tap to return to the home Screen and make the Notes icon the Current Item.

Which of these techniques is the best one to use? The answer is, "whichever one is the easiest for you"! You can even use Siri to launch the Notes app. Simply hold down the Side button and then say "launch Notes".

The Notes App consists of three screens. The Note Content Screen displays the entire content of the note you are viewing, creating or editing. The Notes List Screen lists all the notes you have created in a particular folder. The Folders Screen shows a list of all Accounts and folders which contain notes. When you open the Notes app, it will open to the Notes List screen.

Many apps have this type of screen setup. Typically, there will be a list of items, for example, mail messages, contacts, reminders and many more. They appear on a List screen. When you Activate one of them, you are taken to a screen that displays the contents of the item you activated.

The Notes List Screen

The Action Row on the Notes List Screen consists of two buttons. These are the "Folders, Back" button and the "Folder Actions" button.

The Folders, Back Button

This button is situated at the upper left corner of the screen. When it is activated, you are taken to the list of accounts and folders where notes are stored. You can ignore this button for this lesson!

The Folder Actions Button

This button is situated at the upper right corner of the screen. When it is activated, a popup window is displayed consisting of the following options: View as Gallery, Select Notes, Sort By, Group By and View Attachments. At the bottom of this popup window is a button labelled "Dismiss Context Menu", which when activated, closes the popup window. For completeness, each button is described below:

The View as Gallery Button

This button, when activated, toggles the display of the notes in the Notes List screen into a grid structure. Upon doing this, the name of the button changes to become the View as List button. Activating the View as List button results in the notes being displayed in a single line structure and the name of the button changing back to the View as Gallery button. The default setting is to have notes displayed in a single line view.

The Select Notes Button

This button, when activated, allows you to select multiple notes from the list and perform a single action that affects all selected notes at once, for example moving or deleting.

The Sort By Button

This button, when activated, displays a popup window consisting of the following buttons: Date Edited, Date Created, Title, Newest First and Oldest First. The current sort method will be selected in the list.

At the bottom of the list, you will find the "Dismiss context menu" button. Activate this button to close the popup window without making any changes.

The Group By Button

This button, when activated, displays a popup window consisting of the following buttons: Group by Date, Default, On and Off. The current Group By method will be selected in the list. At the bottom of the list, you will find the "Dismiss context menu" button. Activate this button to close the popup window without making any changes.

The View Attachments Button

This button, when activated, displays a screen titled Attachments. It contains a list of pictures, maps and other items that have been added to your notes. At the upper right corner of this screen you will find the "Done" button. Activate this button to return to the Notes screen.

Just beneath the Action Row, you will find the Notes Heading. This indicates that you are on the Notes list screen.

Beneath the Notes heading, you will find the Search Text Field. You can enter a key word or phrase in this field, and only notes which contain the characters, in the order you typed them, will be listed. You can ignore this field for now.

To the right of the search Text Field, you will find the "Dictate" button. You can activate this button to dictate text into the Search Text Field, instead of typing it.

Below the Search Text Field, you will find the Notes List Item. List Items can contain other items inside them organized by rows, where each row represents a separate item in the list. Each row can contain labels, buttons, text fields and just about anything. This is where you will find the notes you have created! The notes are organised into months of the year, with each month having its own heading.

At the bottom of the screen, you will find a toolbar. At the centre of this toolbar, you will find a text label which indicates how many notes are in the current folder. To the right of this label, situated at the bottom right corner of the screen, you will find the New Note button. This button, when activated, creates a new note!

The Notes Content Screen

The Action Row of the Notes Content Screen consists of four buttons. These are the "Notes, Back" button, the "Share" button, the "More" button and the "Done " button. There is no heading in this screen, so you can use these buttons to help determine which screen you are in, as they only appear in the Notes Content Screen!

The Notes, Back Button

This button is situated at the beginning of the Action Row, at the upper left corner of the screen. When it is activated, your note is saved and you are returned to the Notes List Screen.

The Share Button

This button is situated to the right of the "Notes, Back" button. This button is used to display various apps which can be used to share your note. The Share button will not be discussed in this lesson.

The More Button

This button is situated to the right of the "Share" button. When this button is activated, a popup window is displayed, consisting of a number of options for managing your note, finding text in the note and adding line and grids to the note. The More button will not be discussed in this lesson.

The Done Button

This button is situated at the end of the action row, at the upper right corner of the screen. When it is activated, you exit editing mode for the currently displayed note and the Virtual keyboard is hidden. This button only appears when the Notes Text Field is being edited.

Beneath the Action Row, you will find a text label which shows the date and time the note was created. Directly beneath the date and time, you will find the Notes Text Field, which contains the contents of the note, and beneath this, a Virtual keyboard. If you are creating a new note, the text label which shows the date and time of the note's creation, isn't present.

Sometimes an Action Row can be split so that some buttons are at the top below the status bar, and others are on a toolbar at the bottom of the screen. The Action Row for the Notes Content screen is split in this

way, but while the Notes Text Field is activated for editing, you can't navigate to the buttons at the bottom. This is because the Virtual keyboard is in the way. Activating the "Done" button takes you out of editing mode, and the Virtual keyboard is hidden. Now you will be able to find the following items on the toolbar:

The Checklist Button

This button, when activated, displays a small box in the body of the note. Here, you can add items in a list format. Checklists are not very easy to use with VoiceOver, so they will not be discussed in this lesson.

The Attachments Button

This button, when activated, displays a popup window consisting of seven buttons. These are: Attach File, Record Audio, Choose Photo or Video, Take Photo or Video, Scan Documents, Scan Text and Dismiss context menu. Attaching files and using photos and videos are beyond the scope of this lesson, so they will not be discussed further.

The Handwriting Button

This button, when activated, displays a toolbar at the bottom of the screen containing various tools for creating handwritten text. These are largely inaccessible with VoiceOver, so they will not be discussed further in this lesson.

The New Note Button

This button, when activated, opens a new note in the Notes Content screen. Sometimes, the New Note button is dimmed, meaning it cannot be used at the current time!

3.1   Editing Your Previous Note

In SECTION 6 of Lesson 2 - Working with Apps, you used the Notes App to create a note so you could try editing text, but you didn't try to correct any mistakes. If you didn't do this exercise, then please do it now. This note is required for the next SECTION. When you have finished, activate the "Notes, Back" button to return to the Notes List screen.

1.   If you are on the Notes Content Screen, Activate the "Notes, back button". Upon doing this, you will be returned to the Notes List screen.

2.	If Voiceover did not read the first line of the note from the last exercise, use the Explore gesture, or a combination of the Next Item and Previous Item gestures, until you have located it. VoiceOver will announce the first line of the note, and the time it was created. Finally, VoiceOver announces "button". This means you can activate this item.

3.	Activate this button. Upon doing this, the Notes Content screen will be displayed, and the note will be ready for viewing or editing. VoiceOver will announce the date and time the note was last edited.

4.	Use the Next Item gesture. VoiceOver will announce, "Note", followed by the contents of the note. Then VoiceOver will announce "text field". This field is called "Note", and it is where the text you entered from Lesson 2 is stored.

5.	Use an Activate gesture on this text field to begin editing. VoiceOver will have a lot to say at this point. It will start with "Note", which is the name of the Text Field you just activated. It will then say, "Text Field", which is the type of item you just activated. Next comes "Is Editing" to indicate that the field is ready for you to enter text or change any existing text. VoiceOver will then read the text of the note. VoiceOver will then announce, "Character Mode", "Word Mode" or "Line Mode", But don't worry if it doesn't. Finally, VoiceOver will announce "Insertion Point at start".

## 3.2	The Start /End of Field Gesture

VoiceOver uses the One Finger Double Tap gesture to alternately move the cursor or Insertion Point between the first and last character in an active Text Field Item. However, you learnt this gesture as an Activate gesture. What on earth is going on here!?

## 3.3	Context Sensitive Gestures

Sometimes the same gesture can have different meanings, depending on what you are doing at the time. For example, the One Finger Double Tap is the activate gesture on the Home Screen or Dock, and when the Current Item is a button, but it is the Start/End of Field gesture in an active Text Field. You saw one other gesture like this in Lesson 2 - Working with Apps. The Three Finger Swipe up is the Close App

gesture in the App Switcher, but it is the Next Screen gesture everywhere else. It sounds confusing, but you will understand it with practice.

Use the Explore gesture to place your finger anywhere over the Text Field. Then perform a One Finger Double Tap. VoiceOver announces "Insertion Point at Start" or, "Insertion Point at End". Try this several times and the Insertion Point will switch back and forth. Stop when VoiceOver announces Insertion Point at Start". Now how do you get to a character in the middle? For this you will use the Rotor.

4.   The Rotor

If you imagine a dial on your screen similar to an old-fashioned radio tuner, and then move two fingers on the screen, as if you were turning it, VoiceOver brings up the Rotor. The Rotor is used to control the meaning of the One Finger Swipe Up and One Finger Swipe Down gestures.

In Lesson 2 - Working with Apps, SECTION 7.5 under Rules for Swiping, you learnt that vertical One Finger Swipes have different meanings depending on the circumstances. It is the setting of the Rotor that controls these circumstances.

It doesn't matter which way you turn the dial. The Rotor's settings are in a circular list. you will simply go through the options in reverse order. It is OK to lift your fingers between incremental adjustments. The Rotor remembers where you were when you lifted them and begins at that point when you set them down again.

Let's use the Characters setting of the Rotor to move through our note and make corrections.

4.1 The Dial Gesture

The Dial gesture is what you use to change the Rotor from one function to another. You make this gesture by simultaneously touching two fingers anywhere on the screen whilst turning an imaginary dial between them to the right or left. If it works correctly, Voiceover will announce the function you just dialled the Rotor to.

IMPORTANT! When using the Dial gesture, it is essential that both fingers touch the screen at the same time. Otherwise your gesture will be interpreted as an Explore gesture, or a Split Tap gesture.

Try dialling the Rotor a few times in small increments, lifting your fingers between each turn. When you put them down again for the next turn, you can start them in the same place you started the previous turn. The Rotor continues through the list of options from where it left off, regardless of where your fingers start. The idea is that you don't have to contort your wrist or your iPhone into awkward positions to keep dialling the Rotor. In fact, your wrist should move as little as possible. Simply move your fingers. Rotate once all the way through the list of functions until you come back to the beginning.

Practice dialling the Rotor both ways until you feel comfortable with this gesture. You will use it often when operating your iPhone.

4.2   The Insertion Point

The final piece of information you need before you can start editing is what Voiceover refers to as the Insertion Point. Many people also know it as the cursor. The Insertion Point usually appears as a blinking vertical line, or a box. Any edits in an Active Text Field, including deletions, take place at the Insertion Point.

Now dial the Rotor to the Characters function, and let's get started editing!

4.3   One Finger Swipe Up and One Finger Swipe Down

With the Rotor set to the Characters function, a One Finger Swipe Down will advance the Insertion Point one character forward in the Text Field. VoiceOver will read the character the Insertion Point just passed over. A One Finger Swipe Up gesture will move the Insertion Point backwards one character. In this lesson, and in all future lessons, these gestures will be referred to as the "Move Forward" and "Move backward" gestures respectively.

Let's try the move forward gesture now.

1.   Try three Move Forward gestures, One Finger Swipes Down. VoiceOver should say, "Cap M, y, space. Remember, a blank space is also considered to be a character.

NOTE 1: The Notes app is able to support formatting such as bold, italic and underline. As a result, as you move through the note you may hear VoiceOver say things like, "System font", or "17 point", to refer to characteristics of the font being displayed. Ignore these statements for now, and just focus on the letters being spoken.

2.   Continue to move forward . If VoiceOver announces a character that is not supposed to be there, activate the DELETE key at the right side of the Virtual keyboard to remove it.

3.   Keep using the Move Forward gesture and the DELETE key if necessary, until you hear the Thunk sound. This means you have come to the end of the text. Hopefully by now any extra characters have been removed from the note.

4.   Now use the Start/End of Field gesture, to move the Insertion Point back to the start of the Text Field again. VoiceOver will say "Insertion Point at Start", when you are there.

5.   Use the Move Forward gesture and listen for any missing characters in the text. If you hear that a character is missing, use the Move Backward gesture one time. The letter you just heard will be repeated by VoiceOver. It will be pushed forward and the characters you type will be inserted in the order you type them.

6.   At this point the Insertion Point should be at the end of the text again, and the text should be cleaned up. It should now say, "My first note".

Now let's change the text to read "My very first note".

1.   Use the Start/End of Field gesture to quickly move the Insertion Point to the Start of the Text field.

2.   Use the Move Forward gesture (One Finger Swipe Down) to move the Insertion Point to the "F" of the word First.

3.   Now perform a Move Backward gesture (One Finger Swipe Up) so that VoiceOver repeats the letter F of the word "first". The Insertion Point will now be directly before the letter "F".

4.   Type the characters "v", as in Victor, "e", "r", "y" and one blank space to separate it from the word First.

5.   Activate the Done Button to finish editing and hide the keyboard.

Tips About Inserting Text

- If you are moving forward through a Text Field, text will be inserted AFTER the last item spoken by VoiceOver.
- If you are moving backward through a Text Field, text will be inserted BEFORE the last item spoken by VoiceOver.

This is why you had to go backward one character after VoiceOver announced the letter "F" of the word "first". If you had started typing the word "very" at that point, it would have been inserted inside the word "First", but by moving the Insertion Point backward over the "F" again, you caused the word "very" to be inserted prior to the "F" of "First".

Tips when Deleting Text

- If you are moving forwards through a Text Field and use the DELETE key, the Character last spoken by VoiceOver will be deleted, and the cursor moves back one character. This is different than the DELETE key on a standard computer keyboard where the delete key doesn't move the cursor/Insertion Point backwards after it is pressed.
- If you are moving backwards through a Text Field, the character before the last character spoken by VoiceOver is deleted. This is like the BACKSPACE key on a standard computer keyboard.

Unless you have selected a string of characters, the DELETE key works one character at a time. If a string is selected, then the entire string of characters will be deleted when you activate the Delete key.

4.4   The Characters, Words and Lines Functions

In the steps above, you used the Rotor to set VoiceOver to the Character function. You can also set VoiceOver to move through text by Words or Lines. With the Characters function, a Move Forward or Move Backward gesture moves the Insertion Point one character forward or backward respectively. If you change the function to Words or Lines, then these gestures will move the Insertion Point one word or one line instead. If you have a Text Field with a large amount of data, it is quicker to move around it by words or lines, but be sure to set the Rotor back to the characters function when you have reached the place where you want to make changes. It is easiest to make changes using the Characters function.

4.3   The Typing Mode Function

The Typing Mode function of the Rotor changes the way the Virtual keyboard reacts to your gestures. In order to demonstrate this function, you will create a new note and try different modes as you type.

1.   If you don't have the Notes App launched, please launch it now. If you have the App open to the previous note, locate the "Notes, Back" button, situated at the upper left corner and activate it to go to the Notes List screen.

2.   Locate and activate the "New Note" button. Remember, this button is situated at the bottom right corner of the screen.

3.   Be sure the Text Field is activated for editing by making it the Current Item and then performing a One Finger Double Tap.

Standard Typing Mode

In Standard Typing Mode, you must use an Activate gesture, either a One Finger Double Tap, or a Split Tap, to type each key. This is the typing mode you have used so far, but there is another mode of typing which you may find easier. You will use the new note to compare them.

4.   With the Text Field activated, type this text, "This line is in Standard typing mode". You may notice that the T of "This" was automatically capitalize! Please also capitalize the S of "Standard", and end the line with a full stop. To capitalize a letter, double tap the SHIFT key next to the letter "A," and then double tap the letter you want to capitalize. You don't have to hold the SHIFT key down whilst typing the letter as you would on a standard computer keyboard.

5.   Now create a new line with the Enter key.

6.   Dial the Rotor until you hear "Typing Mode".

7.   Use the One Finger Swipe Up or One Finger Swipe Down gesture to hear the available options. There are three, Standard Typing, Touch Typing and Direct Touch Typing.

8.   Stop when you have selected Touch Typing.

9.   Dial the Rotor back to the "Characters" function to avoid accidentally changing typing modes later.

Touch Typing Mode

In Touch Typing mode you can explore the keyboard with your finger until you find the character you want. Then simply lift your finger and the character will be typed into the Text Field. You can use the Rotor at any time to switch between Standard and Touch typing mode.

10.   Make sure the Insertion Point is at the end of the Text Field.

11.   Type, "This line is in Touch typing mode", and please capitalize the "T" of "Touch". This time though, you only need to locate the Shift key and lift your finger in order to turn it on.

12.   Now type a full stop at the end of the sentence.

13.   Now create a new line with the Enter key.

Direct Touch Typing Mode

Direct Typing mode is intended for users of the Virtual keyboard who are so familiar with it, that they can hit the right letter almost every time. It most closely simulates a sighted person typing. If a key is tapped, it is typed, but VoiceOver doesn't speak the name of the key. This typing mode also works like Standard typing mode, if the Split Tap gesture is used instead of the double tap to press a key.

Intrepid users can try out Direct Typing mode by following these steps.

14.   Dial the Rotor to the Typing Mode function.

15.   Use the One Finger Swipe up or One Finger Swipe Down gesture until VoiceOver says, "Direct Touch Typing".

16.   Dial the Rotor back to the Characters function.

17.   If the Notes Text Field is not already activated for editing, Activate it now with a One Finger Double Tap.

18.   Use the Start/End of Field gesture to make sure the Insertion Point is at the end of the Text Field.

19.   Type "This line is in Direct Touch typing mode", and please capitalize the "D" of the word direct, and "T" of the word Touch. Also, please end the line with a full stop.

Special Characters

The Virtual keyboard allows you to type special characters such as those using an accent, circumflex, Diaresis, and others. If you are typing in a language other than English, this may be important to you.

In standard typing mode you can access the extended character set for a particular letter with the double tap and hold gesture. When the additional characters appear, Voiceover says, "Alternative Characters available", and you can slide your finger to the left or right without lifting it until you find the special character you want. Then lift your finger. Once you make your selection, after about a second the additional characters will be hidden and Voiceover will say "Additional characters hidden".

In Touch Typing mode, when you hold your finger over the base letter without lifting it for about three seconds, the additional characters will appear. Slide your finger to the character you want, and then lift your finger. Upon doing this, the character will be typed. The special characters will be hidden about a second later, and Voiceover will announce, "Additional Characters hidden".

NOTE 3: Once the special characters appear, one will always be typed even if you invoked the additional characters by accident. Use the Delete key to remove it. In Touch Typing Mode this means you can't leave your finger too long on any key. So keep your finger moving until you find the character you want to type!

Checking Your Work

1.   Use the Start/End of Field gesture to move the Insertion Point to the beginning of the note.

2.   Set the Rotor to the Characters function and move forward, correcting any mistakes that you find. Remember which typing mode you are in before you attempt corrections. You can Dial the Rotor to the Typing Mode function to switch between typing modes whenever you want, but be sure to dial it back to the Characters function before moving through the text again.

3. Move the Insertion Point back to the beginning again and change the Rotor to the Words function. Now move forward through the note. When you come to words that contain, or are adjacent to punctuation marks, VoiceOver includes the punctuation mark with the word. Try moving backward as well.

4. Use the Start/End of Field gesture again to move the Insertion Point back to the beginning of the Text Field.

5. Now switch the Rotor to the Lines function. If the Insertion Point is not at the beginning of the line, VoiceOver may not speak all the text on the line. The Lines function is the fastest way to move inside a Text Field, but if text sounds like it is missing, examine a line more closely with the Words or Characters function. You may find the missing text after all. Move forward and backward and listen to what VoiceOver says.

6. When you are satisfied the text is accurate, activate the "Notes, Back" button to save your work and return to the Notes list screen.

5.   More Rotor Functions

There are many possible Rotor functions. Some are always available. Others appear only in certain applications, or when you are performing a function like editing a Text Field. Some only work in web pages. In fact, there are so many functions that adding them all to the Rotor at once would be very unwieldy. Adding functions to the Rotor will be discussed later in this lesson.

5.1 Behavioural and Navigational Rotor Functions

The Rotor functions can be divided into two groups: Navigational functions, which allow movement through fields or screens; and Behavioural functions, which affect the way your device works. When the Rotor is dialled to a Navigational Function, the One Finger Swipe Down and One Finger Swipe Up gestures will be referred to as the Move Forward and Move Backward gestures respectively. When the Rotor is dialled to a Behavioural function, the One Finger Swipe Down and One Finger Swipe Up gestures will be referred to as the Set Mode Gesture.

5.2   Speaking Rate, Behavioural Function

Dial the Rotor to the Speaking Rate function. Then use the Set Mode gesture to adjust the VoiceOver speech rate in increments of 5% until the rate is comfortable for you. Most people find it comfortable between 40 and 50 percent.

5.3   Volume, Behavioural Function

This adjusts the volume of VoiceOver in 5% increments. It works just like the volume buttons discussed in Lesson 1. Dial the Rotor to this function and adjust the VoiceOver volume so that it is comfortable for you.

IMPORTANT! Be careful not to adjust the volume to zero. If you do this and then dial the Rotor off the Volume function, you will not be able to correct the problem without assistance. If you want to turn speech off, use the Speech On/Off gesture, a Three finger Double Tap, discussed In section 8.2 of Lesson 1 - Orientation and Basics.

5.4   Containers and Headings, Navigational Functions

Containers and Headings are item types. If you dial the Rotor to one of these settings, you can use the Move Forward and Move Backward gestures to move to items of that type on the screen or web page. When you hear the Thunk sound, you can't navigate any further in that direction. If you get the Thunk sound no matter which direction you navigate, this means there are no items of that type on the current screen or web page.

5.5   Characters, Words, and Lines - Navigational Functions

These three functions have already been discussed whilst inside an active Text Field. However, Character and Word can also be dialled from outside Text Fields. Sometimes it is hard to understand the names of folders, icons, buttons and other items when VoiceOver says them. When this happens, you can dial the Rotor to the Words or Characters mode and listen to the item name broken down into easy to understand chunks.

Tip: It can be a good idea to set the Rotor to a navigational Function after using a Behavioural Function. Otherwise if you forget where the Rotor was set, you could inadvertently change an important setting. For example, if you just adjusted your VoiceOver volume, and then try to use the Move Forward gesture without dialling the Rotor back to a Navigational Function, you could inadvertently turn your VoiceOver volume to zero.

5.6   The "Action" function

There is an "Actions" function of the Rotor. The Rotor often dials itself to this function whenever an Item in a List becomes the Current Item. When the Rotor is set to this function, the Set Mode gesture offers one or more options, depending on the app you are using. You set the mode to the action you want with the Set Mode gesture, the One Finger Swipe Up or Down, then a One finger Double Tap, or Split Tap to have the action carried out on that item.

Some common options are discussed below:

Activate Item, Default Action

The item will be activated/opened. Usually this means the application will go from the List screen to the screen that displays the content for that item. When VoiceOver says, "Default Action", it indicates that this is the mode that Action function is set to after the Rotor self-dials.

Delete

Deletes the Current Item from the list of items when you perform a One Finger Double Tap or Split Tap gesture.

More...

This brings up a menu of additional actions which can be performed on the item in the list. The options vary from app to app.

Let's look at two examples of the Actions function of the Rotor. If you followed the steps above correctly, the Notes List Screen should be currently displayed. Use a combination of the Next Item and Previous Item gestures, until one of the notes in the list is the Current Item. Upon doing this, the Rotor secretly dials itself to the Actions function. Don't believe it? Let's check.

1. Dial the Rotor clockwise just a little until VoiceOver announces another Rotor function such as "Characters".

2. Now dial the Rotor back counter-clockwise to where it was. The Rotor should say "Actions". If you miss it, keep dialling in small increments until you find it.

3. Now use the Set mode gesture, a One Finger Swipe up or One Finger Swipe Down. You will toggle between a number of actions. These include Activate (Default), Pin Note, Delete Note, Add Lock to Note, Move Note and Drag Item.

Now let's take another look at the App Switcher. In Lesson 2 - Working with Apps, you learnt the Close App gesture, a Three Finger Swipe Up, but you can also close an app using the Actions function of the Rotor.

1. Launch the App Switcher by sliding up from the bottom edge of the screen with one finger, until you hear the third pop sound, then lift your finger.

2. If VoiceOver doesn't announce "Notes", use either the Next Item or Previous Item gesture, until you have located it. Upon doing this, the Rotor secretly dials to the Actions Function.

3. Now use a Set Mode gesture, a One finger Swipe up or down. You will toggle between the "Activate" and "Close" actions. If you Swipe up first, then the "Close" action comes first. Otherwise, the "Activate" action comes first.

So if you don't like the three finger Swipe up gesture to close an app, then find the app you want to close in the app switcher. Swipe up once with one finger and VoiceOver will announce the "Close App" mode. You could then use the One Finger Double Tap gesture to close the app, but for now you are not yet finished with the Notes app, so set the mode to "Activate" and return to Notes by performing a One Finger Double Tap.

You have worked pretty hard to get to this point. Go ahead and take a break. Grab a cup of coffee, walk the dog, rearrange the furniture. Upon your return, you will learn about selecting text.

6.   Selecting Text

Let's expand on the description of selecting text provided in Section 2.2 of this lesson. Text is selected by bracketing it with a beginning and ending point. Selected text usually appears in a different colour than the other text around it. Once text is selected you can do things with it using just a few gestures. You can copy it into memory and quickly insert it again later without retyping it. You can quickly remove it with the DELETE key, or remove it by "Cutting" it. Cutting text makes a copy of the selection in memory prior to removing it from the screen. You can quickly add or remove bold, underline, italic or other font attributes. You can even instantly replace it with new text by starting to type the new text whilst the old text is selected, or you can replace it by pasting copied text over it. You can capitalize it, look up a definition for a selected word, and much more. All of the text is treated as a single entity rather than having to perform the action one character or word at a time.

In the note you created about typing modes, there were multiple lines of text. Each line began with "This line is in", and then ended with different text. You typed each line from scratch, but there is an easier way to enter duplicate text. Let's start a new note and learn how.

1.   Launch the Notes app again and create a new note.

2.   Activate the Notes Text Field and type the words, "This is line", and follow them with a blank space.

3.   Use the techniques you learnt earlier to check the line for errors. You want the text to be error free before you continue.

6.1 Selecting All the Text in the Text field

1.   With your newest note displayed, dial the Rotor to the Edit Function.

2.   Use the Set Mode gesture to listen to the modes available from the Edit Function. After you go all the way through them once, stop on the "Select All" mode.

3.   Perform the One Finger Double Tap gesture to tell your iPhone to select all of the text in your note. Upon doing this, VoiceOver will say, "This is line", which is the text you just entered.

IMPORTANT! If you activate the DELETE key whilst you have text selected, all of the selected text will be deleted. If you type a character, all the selected text will be replaced by the character you typed. No warning messages or, "Are you sure" messages will be displayed. So be careful!

6.2   Copying Selected Text

When you "copy" text, you are not making a copy of it on the screen. Instead, you make a copy of it in a hidden memory buffer called the 'Clipboard'. If you do the copy correctly, you won't detect any difference in the Text Field at all.

1.   Now use the Set Mode gesture again until VoiceOver says "Copy".

IMPORTANT! Be careful not to touch the screen and then make the gesture. This will be interpreted as an Explore gesture and deselect the text. Then you will have to repeat the steps in the previous section again. You need to have a single smooth Set Mode gesture, like Swiping that bug from lesson One.

2.   Once the mode is set to "Copy", perform the One Finger Double Tap gesture to copy your note to the Clipboard.

6.3   Cutting Selected Text

If you wanted to move the selected text to another location, you would replace the "Copy" mode in the previous step with the "Cut" mode. This deletes the text from the original location, but copies it to the Clipboard first. In this case, you wanted the original text untouched. So you used Copy.

Let's take a brief moment to discuss the difference between "cutting" selected text and "deleting" it. When text is selected, and you use the delete key to delete it, no copy of the text is placed in memory. This means you can't restore the deleted selection without retyping it. When you "cut" selected text using the Cut mode of the Rotor's Edit function, you make a copy in memory before the text is removed. You can use this copy to paste the text in other locations. Keep in mind that the Cut text replaces whatever is already on the Clipboard. So if you don't want to lose what is already on the Clipboard, you should paste that first before cutting other text.

6.4   Deselecting Text

It is easy to accidentally delete selected text, because you forgot you selected it. Deselecting text helps prevent this. The text is not altered. The text is just no longer selected. You deselect text with a two-step process as follows:

1.   Dial the Rotor to a Navigation function, such as Characters, Words or Lines.

2.   Then move the Insertion Point with one of the following movement gestures: Move Forward, Move Backward or Start/End of field.

The combination of Navigation function and Movement gestures you use depends on where you want the Insertion Point to be after you deselect the text.

6.5   Pasting Text

When you "Paste" text, you are copying the text from the Clipboard to the place in the Text Field where the Insertion Point is currently located. The Clipboard is not erased. So you can paste the same information multiple times.

IMPORTANT! Verify the position of the Insertion Point prior to typing or pasting. You can do this by following the steps detailed in Section 6.4 of this lesson, until you get the Insertion Point exactly where you want it. If you move backwards through the text, then whatever you type or paste will be inserted just BEFORE the last thing spoken by VoiceOver. If you move forward, then whatever you type or paste is inserted AFTER the last thing spoken by VoiceOver. Typing or pasting without checking the location of the Insertion Point first, will likely result in some very frustrating experiences!

1.   If you have not already done so, dial the Rotor to a Navigation function such as Characters. The other Navigation functions are "Words" and "Lines", but the "Characters" function works best here.

2.   Use the Start/End of Field gesture, to move the Insertion Point to the end of the Text Field.

3. Type the letters o, n, and e to spell the word 'one' and then create a new line at the end with the ENTER key.

4. Dial the Rotor to the Edit Function.

5. Use the Set Mode gesture to find the Paste mode.

6. Perform a One Finger Double Tap to activate the Paste mode. Then dial the Rotor back to Characters.

7. Let's listen to the entire Text field now. The easiest way to do this is to move away from the Text Field and then move back to it again. You can Do this with the Previous Item gesture, a One Finger Swipe Left. Follow this with the Next Item gesture, a One Finger Swipe Right, to return again. Upon doing this, VoiceOver will read the entire contents of the Text Field. You should hear "Note, Text Field, Is Editing, This is line one, this is line". It sounds a little incomplete!

8. Use the Start/End of Field gesture to move the Insertion Point to the end of the Text Field.

9. Type the characters "t, w and o", followed by a full stop, and then create a new line with the ENTER key.

10. Now take a few moments to listen to your note. The first line now says "This is line one", and the next line says, "This is line two". All you needed to type was the word "two", because you selected the words, "This is line" and even the blank space afterward when you used the Select All mode of the Edit function. You recalled the copy with the Paste mode. So you only needed to type "t, w, and o to finish the line.

11. Move the Insertion Point to the end of the Text Field.

12. Dial the Rotor back to the Edit function.

13. Use the Set Mode gesture to find the Paste mode.

14. Perform a One Finger Double Tap to activate the Paste mode again.

15. Dial the Rotor back to Characters.

16. Ensure the Insertion Point is at the end of field position and Now type "t", "h", "r", "e" and "e" followed by a full stop.

17. Read your message again. Now you have three lines of text that all begin with the words, "This is line", but you only typed it once.

You can paste the same text as many times as you want until you cut or copy another piece of text to the Clipboard.

FOOD FOR THOUGHT: What would have happened if you had not included a blank space after the word "line", prior to copying? The answer is, you would have to activate the Space key after each copy, to insert a space between the word "line" and the next thing you typed. When copying and pasting text, a little planning goes a long way!

6.6 Selecting A Word

At the beginning of this exercise, you used the Select All Mode of the Edit Function to select all the text you had typed. Now let's select only the word "one" from the first line of the note.

1. Use a combination of the Start/End of Field gesture and the Characters or Words Rotor Function to position the Insertion Point in the word "one", at the end of the first line of text.

2. Use the Dial gesture to set the Rotor back to the Edit function.

3. Use the Set Mode gesture, a One finger Swipe up or down, until you hear VoiceOver say "Select".

4. Use the Activate gesture, a One finger double tap, to activate the Select mode. Upon doing this, the word the Insertion Point was touching will be selected, your iPhone will chirp, and A popup window will appear.

5. When VoiceOver says "Menu Options", Swipe up with one finger until VoiceOver says, "Copy" and then perform a One Finger Double Tap to activate it.

Now let's paste the word on a new line at the end of the note.

1. Use the Start/End of Field gesture to position the Insertion Point at the end of the Text Field.

2.   Activate the Enter Key to create a new line.

3.   Dial the Rotor to the Edit function.

4.   Use the Set Mode gesture, until VoiceOver says "Paste".

5.   Perform a One Finger Double Tap to paste the text.

It is always a good idea to check your work. Let's take a look at what you just pasted.

1.   Dial the Rotor to the Characters Function.

2.   Use the Move backward gesture until you hear the letter "O", of the word "One".

3.   Now use the move forward gesture slowly, to hear what you just pasted. Don't stop until you hear the Thunk sound to indicate you are at the end of the Text Field.

You should hear "O, n, e, full stop". Hey, where did that full stop come from? Well, it turns out that if you select a word with adjacent or embedded punctuation, the punctuation will be selected as well. If you don't want the punctuation, you will have to delete it after pasting.

Now let's get rid of what you just pasted. It will be in the way for the next exercise.

1.   Use any of the techniques you know to position the Insertion Point anywhere inside the word "one", at the end of the note.

2.   Dial the Rotor to the Edit Function.

3.   Use the Set Mode gesture, until Voiceover says "Select".

4.   Now perform a One Finger Double Tap. The word the Insertion Point is in, and any adjacent punctuation, will now be selected. In this case this is the word "one" that you just pasted.

5.   Since you don't need to paste this word anywhere else, press the DELETE key. The word is now gone!

So far you have learnt how to select a single word, or how to select all the text in a Text Field, but suppose you want to select a specific amount

of text in the middle. For example, you might want to select part of a word, several words, a large number with embedded commas, or maybe a sentence, line or paragraph. Don't panic! This can also be done!

6.7   Incrementally Selecting Text

The Text Selection Function

There is a function that can be added to the Rotor called "Text Selection", which allows you to select or deselect text using the Next Item and Previous Item gestures respectively. However, this function doesn't always appear in the Rotor by default, so you are going to check to see if it has been added to the Rotor before you begin.

Adding the Text Selection Function to the Rotor

1.   Launch the Settings Application from the Home Screen.

2.   In the Settings screen, locate and activate the Accessibility button.

3.   In the Accessibility screen, locate and activate the VoiceOver button.

4.   In the VoiceOver screen, locate and activate the Rotor button.

5.   In the Rotor screen, locate the Text Selection function.

As you Explore over each option, Voiceover will say, "Selected", before some, but not others. When Voiceover says "Selected", it means that the option will appear on the Rotor.

If you use the Next and Previous Item gestures, a One Finger Swipe Right or Left respectively, you will hear the item first, but if you perform another next Item gesture, Voiceover will say, "Reorder button", followed by the Item Name. This button allows you to use the Drag Gesture, a One Finger Double Tap and hold, followed by a vertical slide up or down, to change the position of the item in the list.

6.   If Voiceover did not say, "Selected", use the Select gesture, a One Finger Double Tap, or Split Tap, to add the Text Selection function to the Rotor.

Once a function has been added to the Rotor, it will remain available until you go into the Rotor settings again and deselect it. You can now close the settings app.

Let's use the note you created in Section 4.5 about typing modes, to practice with the Text Selection function. You will add a new line at the bottom that says, "My favourite Typing Mode is", followed by your favourite mode.

1.   If the Notes App is not open, open it now and go to the Notes Item List.

2.   Locate the note in the list called "This line is in Standard Typing Mode", and perform an Activate gesture to open it.

3.   Ensure that the Note Text Field is activated for editing.

4.   Use the Start/End of Field gesture to move the Insertion Point to the beginning of the Text Field.

5.   Dial the Rotor to the Words function and move the Insertion Point to the end of the word, "Standard". You are going to select and copy the words, "Typing Mode" for use in your new line.

6.   Dial the Rotor to the Text Selection function.

7.   Use the Set Mode gesture and listen to the options. They are Character Selection, Word Selection, Line Selection, Page Selection and Select All.

8.   Set the mode to Word Selection.

9.   Now use the Next Item gesture, a One Finger Swipe Right. Upon doing this, the Insertion Point moves from its current position to the end of the word, "Typing", and Voiceover says the word to indicate it is selected.

10.   Now use the Set Mode gesture, a One Finger Swipe Up or One Finger Swipe Down, until the mode of the Text Selection function is set to Character Selection.

11.   Use the Next Item gesture, to select the space after the word "Typing".

12.   Continue to use the next Item gesture to select the "M", "o", "d" and "e", of the word Mode. If you go too far, use the Previous Item gesture, a One Finger Swipe Left, to deselect the extra characters.

13.   Dial the Rotor to the Edit Function, and use the Set Mode gesture to find the Copy mode.

14.   Perform a One Finger Double Tap, to activate the copy feature and copy the words "Typing Mode" to the Clipboard.

15.   Dial the Rotor to the Characters function and use the Start/End of field gesture, One Finger Double Tap, until the Insertion Point is at the end of the Text Field.

16.   Type the words, "My favourite", plus one blank space.

17.   Dial the Rotor to the Edit function. Use the Set Mode gesture to find the Paste function.

18.   Perform a One Finger Double Tap to activate the Paste function. Upon doing this, the words, "Typing Mode" will be pasted.

19.   Dial the Rotor to the Characters function.

20.   Now type a blank space followed by the word, "is", and another blank space.

21.   Type either "Standard", "Touch" or "Direct Touch" to indicate your favourite typing mode.

22.   Dial the Rotor to the Edit function. Use the Set Mode gesture to find the Paste function.

23.   Perform a One Finger Double Tap to activate the Paste function. Upon doing this, the words, "Typing Mode" will be pasted.

24.   Add a full stop at the end of the sentence. Then create a new line with the Enter key.

25.   Activate the "Notes, Back" button to save your hard work and return to the Notes List screen.

Notice that you didn't have to copy the text more than once to paste it multiple times. Once you have copied text to the Clipboard, you can paste it as many times as you want until you copy something else into memory.

The remainder of Section 6.7 covers the Pinch Open and Pinch Close gestures. Prior to the Text Selection Rotor function being made available, this was the only method of selecting and deselecting text. Although the Text Selection Rotor function generally makes selecting text easier, it doesn't hurt to learn both ways.

The Pinch Open and Pinch Closed Gestures

There are two parts to the Pinch gestures. First, you must dial the Rotor to either the Characters, Words, or Lines function. Then make the pinch gestures by simultaneously placing two fingers on the screen. It is recommended that one finger remain stationary during the pinch gestures, whilst the other finger moves. To make the Pinch Open gesture, you place the two fingers next to each other and gradually move the mobile finger away from the stationary one. To make the Pinch Closed gesture, you separate the two fingers as much as possible and then move the mobile finger toward the stationary one. As you expand the distance between your fingers (Pinch Open), the text selection expands forward. As you bring your fingers closer together (Pinch Closed), the text at the end of the selection is deselected.

Here are a few tips for selecting text with the Pinch Open and Pinch Closed gestures:

- If you use a one handed pinch gesture, it is recommended that you keep the thumb stationary near the bottom side of the screen and move the other finger diagonally on a line with the opposite corner.
- If your mobile finger can't go any further, but you still want to select or deselect more text, lift your mobile finger, put it down where it started near the stationary one, and move it again. Be careful not to move or lift your stationary finger or you'll cancel the selection.
- The selected text expands incrementally by characters, words, or lines depending on which function the Rotor is dialled to.
- When the Rotor is dialled to the Words or Lines functions, punctuation and special characters embedded in a word or adjacent to it are included in the selection.

- You can temporarily stop the Pinch action and change the Rotor function while text is being selected. This is useful when you want to select a large amount of text, but need to be more precise as you get to the end of the region you want to select.
- If you select too much text, you can deselect text from the end of the selection with the Pinch Closed gesture.

Let's use your third note, the one you created at the beginning of Section 6 to practice incremental text selection with the Pinch gestures. We'll add a new line that says, "This is line 4," followed by a full stop and a New Line character. You will select part of the text from line 3 in order to accomplish this. If the note is not displayed in the Notes Content Screen, please open it now.

1.   Ensure that the Text Field is Activated for editing.

2.   Perform the Start/End of Field gesture, a One Finger Double Tap, to move the Insertion Point to the beginning of the Text Field.

3.   Dial the Rotor to the Lines function.

4.   Use the Move Forward gesture, a One Finger Swipe Down, until Voiceover says, "This is line 3". The Insertion Point has now moved to the end of the third line. When the Rotor is set to the Words or Lines functions, and you move forward through the text, the Insertion Point is moved to the end of the word or line VoiceOver just spoke. If you move backward, then the Insertion Point is moved to the beginning of the word or line last spoken by VoiceOver.

5.   Since you need the Insertion Point to be at the beginning of the third line, use the Move Backward gesture, a One Finger Swipe Up. Voiceover will say, "This is line 3" again, but now the Insertion Point will be at the beginning of the word, "This", which is where you need it to be.

6.   Dial the Rotor to the Words function.

7.   If you are performing a one handed Pinch gesture, hold your thumb and other finger together with your other finger to the side of your thumb, like you were trying to hold a grain of sand.

8.   Touch the screen with both fingers near the bottom of one of the sides. Be sure both fingers touch the screen at the same time. Otherwise the first finger that touches the screen will be interpreted as an Explore gesture, and the Insertion Point may be moved. If that happens, you will have to start the process over again.

9.   Slowly move your mobile finger directly away from your stationary one. The selection will expand one word at a time. Voiceover will read each word as it is added to the selection.

10.   When VoiceOver says, "This is line", stop the Pinch Open gesture and lift your fingers from the screen.

11.   Dial the Rotor to the Edit Function, and use the Set Mode gesture to select the Copy mode.

12.   Perform a One Finger Double Tap. Upon doing this, the text will be copied to the Clipboard.

13.   Dial the Rotor to one of the Navigation functions, for example Characters.

14.   Use the Start/End of Field gesture, a One Finger Double Tap, until the Insertion Point is at the End of the Text Field.

15.   Dial the Rotor to the edit Function.

16.   Change the mode to Paste.

17.   Perform a One Finger Double Tap. Upon doing this, the text you copied to the Clipboard will be pasted at the end of the note.

18.   Dial the Rotor to the Characters function.

19.   Go to the end of the text and use the Move forward and Backward gestures to move around. You may notice the last character is the letter, "e", and not a blank space. This is because when selecting by words, the selection doesn't include the space after the last word selected. You could have dialled the Rotor to the Characters function whilst you were selecting, and then picked up the extra space, but since you are only pasting once, it's just as easy to add the space now.

20.   Insert a blank space and then type the number, "4" followed by a full stop and then create a new line with the Enter key.

Selecting text with the Pinch Open and Pinch Closed gestures takes a lot of practice, but once you grasp the idea, it is really helpful. You can cut, copy or delete the selected text very quickly. Don't get discouraged when you first try the Pinch gestures!

7.   Review

7.1 New Items

List Item

A List item is an item that can contain items inside it. The items in the list are organized by rows. List Items can contain labels, buttons, text fields and just about anything else.

7.2 New Gestures

Start/End of Field

One Finger Double Tap. When editing text, moves the Insertion Point between the Start and End of the Text Field.

Dial

Turn Rotor dial with two fingers. Changes the function the Rotor is set to.

Move Forward

One Finger Swipe Down. When the Rotor is Dialled to a Navigational Function, moves to the next Character, Word, Line, Container, heading or other item type.

Move Backward

One Finger Swipe Up. When the Rotor is Dialled to a Navigational Function, moves to the previous Character, Word, Line, Container, heading, or other item type.

Set Mode

One Finger Swipe Up, or One Finger Swipe Down. When the Rotor is set to a Behavioural Function, Increases/Decreases the volume and speech rate or changes an operational mode.

Pinch Open

Place your Thumb and Index Finger together simultaneously on the display and then move your index finger away from your thumb whilst keeping your thumb stationary. When editing text, this gesture selects text. Be sure both fingers make contact with the display at the same time. Otherwise, this will be interpreted as a Split Tap gesture.

Pinch closed

Separate your Thumb and Index Finger and place them simultaneously on the screen, then move your index finger closer to your thumb whilst keeping your thumb stationary. When editing text, this gesture deselects text. Be sure both fingers make contact with the display at the same time. Otherwise, this will be interpreted as a Split Tap gesture.

8.   Exercises

1.   How many characters are in the string, "Isn't that cool?", excluding the quotation marks.

2.   What is the difference between deleting text and cutting text?

3.   When one or more Text Fields are on the screen, what does VoiceOver say to let you know which one your changes will take place in? If you want to edit text in a different field, how do you activate it for editing?

4.   What is the Rotor? How do you activate it?

5.   What is the difference between the Rotor Functions Character, Word and Line?

6.   What is the difference between Standard Typing and Touch Typing? Under which Rotor function can you find these options?

7.   What is a Context Sensitive gesture?

8.   What gesture uses the same finger movements as the Move Forward and Backward gestures?

9.   What two gestures use the Three Finger Swipe Up movement?

The answers to these questions can be found on page 36.

Congratulations! This concludes the lesson on editing text. In future lessons, you will have the opportunity to put your typing and editing skills into practice. Hopefully, you are now able to navigate your iPhone, in conjunction with VoiceOver, with a good degree of confidence!

Answers to Section 8 Exercises

1. How many characters are in the string, "Isn't that cool?", excluding the quotation marks.

Strings are sets of characters where one follows the other. Letters, numbers, punctuation marks and blank spaces are all characters. "Isn't That Cool?" is a string of 16 characters. The spaces and question mark" count.

2. What is the difference between deleting text and cutting text?

When text is deleted, it is not recoverable. When it is cut, the text is first copied to a buffer in memory called the Clipboard. It can be retrieved from the Clipboard with the paste operation.

3. When one or more Text Fields are on the screen, what does VoiceOver say to let you know which one your changes will take place in? If you want to edit text in a different field, how do you activate it for editing?

VoiceOver will announce the name of the text field and then say "is editing", when it reads the field where your next edit will take place. You activate any field for editing with the Activate gesture, a One Finger Double Tap or a Split Tap.

4. What is the Rotor? How do you activate it?

The Rotor is an imaginary dial on your display like an old-fashioned radio tuner. To activate it, move two fingers on the display like you were turning it. When you do this, VoiceOver brings up the Rotor. The Rotor is used to control the meaning of the One Finger Swipe Up and One Finger Swipe Down gestures.

5. What is the difference between the Rotor Functions Character, Word and Line?

These functions cause the One finger Swipe down to move the Insertion Point through the text one character, word or line at a time. A One finger Swipe up moves backwards through the text in the same way.

6. What is the difference between Standard Typing and Touch Typing? Under which Rotor function can you find these options?

When VoiceOver is set to use Standard Typing mode, you use one of the Activate gestures to type each letter. In Touch Typing mode a letter is typed when you lift your finger off the key. You use the Dial gesture to set the Rotor to the Typing Mode function. Then the Set Mode gesture, the One Finger Swipe up or One Finger Swipe Down, to switch between modes.

7.   What is a Context Sensitive gesture?

A context sensitive gesture is one whose meaning changes depending on what you are doing. For example, the one finger double tap is normally the Activate gesture, but when you are editing a Text Field, the gesture moves the Insertion Point between the beginning and end of the field. In this case it becomes the Start/End of Field gesture.

8.   Which gesture uses the same finger movements as the Move Forward and Backward gestures?

The Set Mode gesture is a One Finger Swipe Up or Down, just like the Move Forward/Backward gestures. This is another example of a context sensitive gesture. When the Rotor is set to a Behavioural function, the One Finger Swipe Up and One Finger Swipe Down become the Set Mode gesture. When the Rotor is set to a Navigational function, the One Finger Swipe Up and One Finger Swipe Down become the Move Backward and Move Forward gestures respectively.

9.   Which two gestures use the Three Finger Swipe Up movement?

The Next Screen gesture uses the Three Finger Swipe Up to move to the next page of a list, but in the App Switcher you use the Three Finger Swipe Up gesture to close an application.