SECTION 4

REQUESTING USER INPUT

SECTION CHEAT SHEET

POSITIONAL PARAMETERS

The shell assigns numbers called positional parameters to each command-line argument that is entered. ($1, $2, $3…)

Example Script:

```
myscript Tom /home/Tom red
```

```
#!/bin/bash
echo “My Name is $1”
echo “My home directory is $2”
echo “My favourite colour is $3”
```

SPECIAL PARAMETERS

Special parameters are like regular parameters, but are created for us by the shell, and are unmodifiable

Special Parameter	Description	Command Line	Parameter Value for Command Line
$#	Stores the number of command line arguments provided to the script	example.sh 1 2 3	3
$0	Stores the script name	test.sh 1 2 3	test.sh
$@	Expands to each positional parameter as its own word with subsequent word splitting	example.sh "daily reports"	daily reports (2 words)
"$@"	Expands to each positional parameter as its own word without subsequent word splitting	example.sh "daily reports"	daily reports (1 word)
$*	Exactly the same as $@	example.sh "daily reports"	daily reports (2 words)
"$*"	Expands to all positional parameter as one word separated by the first letter of the IFS variable without subsequent word splitting	IFS=, example.sh "daily reports"	daily,reports (1 word)
$?	Gives the exit code returned by the most recent command	echo "hello" echo $?	0 (because echo "hello" was successful)

THE READ COMMAND:

The read command asks for input from the user and saves this input into a variable

Syntax for the read command:

```
read variable
```

OPTIONS

-p "prompt"	Displays a prompt to user about what information they must enter
-t time	Timeout if the user does not enter any value within time seconds.
-s	Prevent the input that the user enters from being shown in the terminal. The "secret" option.
-N chars	Limit the users response to exactly chars characters
-n chars	Limit the users response to a maximum of chars characters

Example Script:

```
#!/bin/bash

read -t 5 -p "Input your first name within 5 seconds: " name
read -n 2 -p "Input your age (max 2 digits): " age
read -s -N 5 -p "Enter your zip code (exactly 5 digits): " zipcode
echo "$name, $age, $zipcode" >> data.csv
```

THE SELECT COMMAND

The select command provides the user with a dropdown menu to select from. The user may select an option from a list of options.

It is also possible to provide a prompt to a user using the PS3 shell variable.

Syntax for the select command:

```
PS3="Please select an option below: "
select variable in options; do
        commands...
        break
done
```

Example Script:

```
#!/bin/bash
PS3="What is the day of the week?: "
select day in mon tue wed thu fri sat sun; do
        echo "The day of the week is $day"
        break
done
```