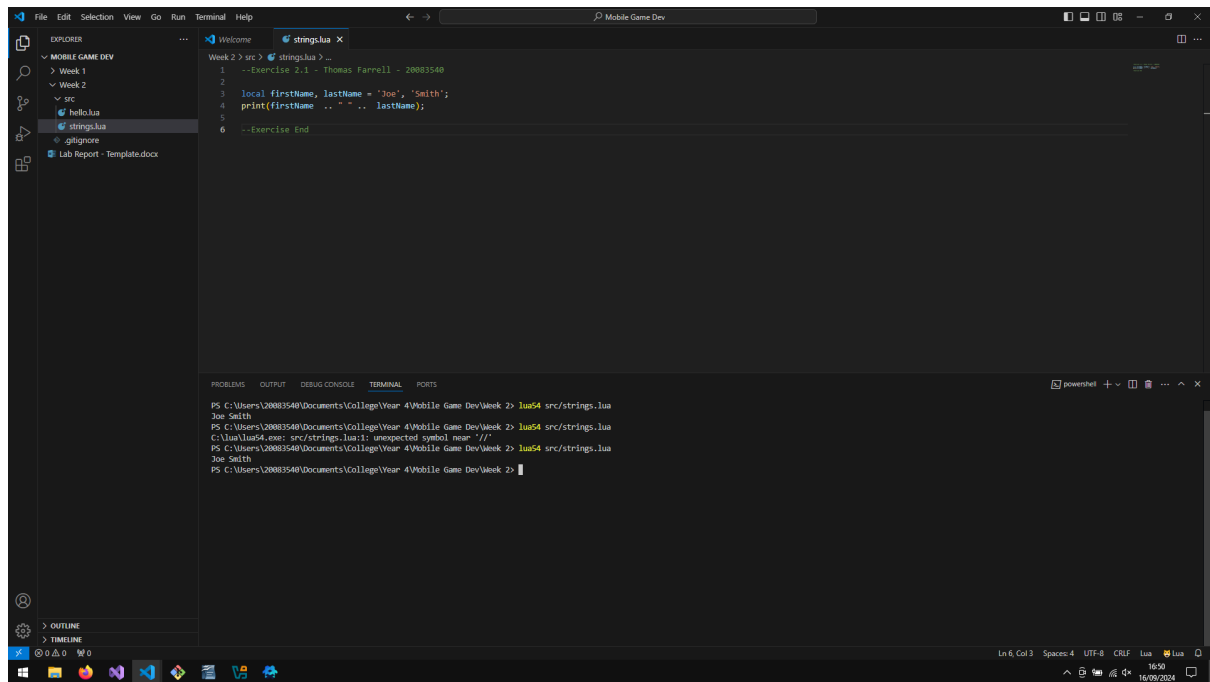


Lab Report

| | |
|--------------------|----------------|
| Name: | Thomas Farrell |
| Student Number: | 20083540 |
| Lab (Week) Number: | 2 |
| Date: | 16/09/24 |

Exercise 2.1



The screenshot shows the Visual Studio Code interface with a file explorer on the left and a terminal at the bottom. The file explorer shows a project named 'MOBILE GAME DEV' with a folder 'Week 2' containing a file 'strings.lua'. The terminal shows the execution of the script, which prints 'Joe Smith'.

```
1 --Exercise 2.1 - Thomas Farrell - 20083540
2
3 local firstName, lastName = 'Joe', 'Smith';
4 print(firstName .. " " .. lastName);
5
6 --Exercise End
```

```
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src/strings.lua
Joe Smith
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src/strings.lua
C:\lua\lua54.exe: src/strings.lua:1: unexpected symbol near '/'
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src/strings.lua
Joe Smith
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2>
```

Exercise 3.1

The screenshot shows a web browser on the left displaying the 'More Strings' page from a tutorial. The page instructs the user to create a file named 'strings.lua' in the 'Week-2' directory and copy the following code:

```
local command = "If you want to succeed in life:"
print(string.sub(command, 1, 10))
```

The instructions also mention completing the code so the output does not contain the letter 'a', ensuring the use of 'string.sub' as above, and committing and pushing to git with a message. Below this, the user is asked to copy the following code underneath:

```
local directions = {"study", "?????", "profit"}
for index, action in ipairs(directions) do
    print(string.format("%d", index))
end
```

The user is then asked to augment the code so the output is:

```
Joe Normal
If you want to succeed in life:
1. study
2. ?????
3. profit
```

The page title is 'Exercise 3.1' and it asks the user to take a screenshot of the code and the output and add it to their word document, ensuring a comment with their name is visible.

On the right, the VS Code editor shows the 'strings.lua' file with the following code:

```
1 local stringlength = string.len(command) --Storing string length
2 --print(stringlength); --Debug for string.len learning.
3
4 print(string.sub(command,1, stringlength -1));
5
6 --Exercise End
7
8 --Exercise 3.0
9
10 local directions = {"study", "?????", "profit"}
11
12 for index, action in ipairs(directions) do
13     print(string.format(index .. ". " .. directions[index]))
14 end
15
16 --Exercise 3.1
```

The terminal output shows the execution of the code, resulting in the following output:

```
3
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src/strings.lua
Joe Smith
If you want to succeed in life:
1.
2.
3.
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src/strings.lua
Joe Smith
If you want to succeed in life:
1. study
2. ?????
3. profit
```

Exercise 4.1

The screenshot shows the VS Code editor with the 'tables.lua' file open. The code defines a table 'fruitsByColour' and iterates over its pairs to print the key and value. It also includes comments about the code not working and the user adding a new key 'lemons' with the value 'yellow'.

```
1 --Exercise 4.1 - Thomas Farrell, 20083540
2
3 local fruitsByColour = {apples = "green",
4 oranges = "orange",
5 strawberries = "red"}
6
7
8 for key, value in pairs(fruitsByColour) do
9
10     --THIS DOES NOT WORK
11     --print(key)
12     --assert((1 == 1 and key == "apples")
13     -- or (1 == 2 and key == "oranges")
14     -- or (1 == 3 and key == "strawberries"))
15
16     print(key .. " are typically " .. fruitsByColour[key])
17
18 end
19
20 print("\nAdding something else...\n");
21
22 --This took WAY too long to figure out.
23 fruitsByColour["lemons"] = "yellow"; --Appended a new key "lemons" and it's value "yellow" to the table.
24
25
26 for index, value in pairs(fruitsByColour) do
27     print(index .. " are typically " .. fruitsByColour[index])
28 end
29
```

The terminal output shows the execution of the code, resulting in the following output:

```
src\tables.lua:30: in main chunk
[C]: in ?
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2> lua54 src\tables.lua
apples are typically green
oranges are typically orange
strawberries are typically red
Adding something else...
apples are typically green
lemons are typically yellow
oranges are typically orange
strawberries are typically red
PS C:\Users\20083540\Documents\College\Year 4\Mobile Game Dev\Week 2>
```

Conclusions (optional)

Inserting additional values into tables feels like it's done in a wrong, roundabout way. However, it does make sense after taking a pause to read it over. Just wish the documentation explained it better, but i got there.