

# Scripting Languages: Workshop 3

- Log into your preferred Linux/bash development environment and complete the tasks below.
- Ensure that all of the scripts you write are fully commented to clearly explain their functionality at every step

## Task 1

1. Write a script named **fmaker.sh** that prompts the user to provide a name for a directory to be created in the current working directory, and then creates that directory
2. Ensure your script prints a message to the screen that the directory has been created, and then use the **ls** command to ensure it has indeed been created

```
vbrown@LAPTOP-4EJP6J7N:~/scrlang/workshops/ws3/wssols$ ./fmaker.sh
Enter the name of the directory you want created: mydocs
The mydocs directory has been created
vbrown@LAPTOP-4EJP6J7N:~/scrlang/workshops/ws3/wssols$ ls
calcbonus.sh  fmaker.sh  fmaker2.sh  getint.sh  mydocs  test.sh
```

3. If you encounter an error, read the error message printed to the terminal carefully and attempt to resolve the issue and run the **fmaker.sh** script again or ask your tutor for assistance

## Task 2

1. Write a script named **getint.sh** that prompts the user for their age as follows - **Please enter your age (enter a integer value only):**
2. Be sure that the **(enter a integer value only)** part of the statement is on *its own line*, but use only one code statement to achieve this (*clue: you will need to use a specific command and command option combination shown in the slide presentation/video*)
3. Once the age has been provided, print a message to this screen that confirms what age has been entered (see image below)

```
vbrown@LAPTOP-4EJP6J7N:~/scrlang/workshops/ws3/wssols$ ./getint.sh
Please enter your age
(enter an integer value only:
53
You have entered 53 as your age
```

4. If you encounter an error, read the error message printed to the terminal carefully and attempt to resolve the issue and run the **getint.sh** script again or ask your tutor for assistance

## Task 3

1. Using the command line, create a directory named **test2**
2. Write a script named **fmaker2.sh** that prompts the user to provide a name for a directory to be created in the current working directory, and then creates that directory **if** it does not already exist

3. If the directory *already exists*, then print a message that informs the user of this and then exits the script
4. If the directory *does not exist*, then create it and print a message that informs the user it has been created and then exit the script
5. Test your script by first entering the existing directory, i.e. **test2**, and then a directory that has not yet been created, e.g. **test3**

```

~/scrlang/workshops/ws3/wssols$ mkdir test2
~/scrlang/workshops/ws3/wssols$ ls
calcbonus.sh  fmaker.sh  fmaker2.sh  getint.sh  mydocs  test.sh  test2
~/scrlang/workshops/ws3/wssols$ ./fmaker2.sh
Enter the name of the directory you want created: test2
Directory already exists
~/scrlang/workshops/ws3/wssols$ ./fmaker2.sh
Enter the name of the directory you want created: test3
The test3 directory has been created
~/scrlang/workshops/ws3/wssols$ ls
calcbonus.sh  fmaker.sh  fmaker2.sh  getint.sh  mydocs  test.sh  test2  test3

```

6. If you encounter an error, read the error message printed to the terminal carefully and attempt to resolve the issue and run the **fmaker2.sh** script again or ask your tutor for assistance

## Task 4

1. Write a script named **calcbonus.sh** that determines the bonus applicable in dollars to a commission earned, as shown in the table below:

Commission	Bonus
<b>&lt;=200</b>	No bonus applicable
<b>&lt;=300</b>	Fifty dollar bonus applicable
<b>&gt;300</b>	One hundred dollar bonus applicable

2. When the script is run, it will begin by prompting the user for this commission amount
3. The correct bonus applicable should be stored as an integer in a variable named **bonus**
4. Print a message to the screen that tells the user what bonus is applicable to the commission entered

```

~/scrlang/workshops/ws3/wssols$ ./calcbonus.sh
Enter the commission earned: 199
No bonus applicable
~/scrlang/workshops/ws3/wssols$ ./calcbonus.sh
Enter the commission earned: 200
No bonus applicable
~/scrlang/workshops/ws3/wssols$ ./calcbonus.sh
Enter the commission earned: 250
The bonus applicable is 50 dollars
~/scrlang/workshops/ws3/wssols$ ./calcbonus.sh
Enter the commission earned: 300
The bonus applicable is 50 dollars
~/scrlang/workshops/ws3/wssols$ ./calcbonus.sh
Enter the commission earned: 320
The bonus applicable is 100 dollars

```

5. If you encounter an error, read the error message printed to the terminal carefully and attempt to resolve the issue and run the **calcbonus.sh** script again or ask your tutor for assistance

## Task 5

1. Run the script `addarrvals.sh` and note that you will get the following error:

```
~/scrlang/workshops/ws3/wssols$ ./addarrvals.sh  
expr: non-integer argument  
3.05 plus 4.12 plus 6.34 is
```

2. Using one of the float calculation techniques demonstrated in the lecture, rewrite the `addarrvals.sh` script so that it outputs a correctly formatted sum of the array's resident values, i.e.

```
3.05 plus 4.12 plus 6.34 is 13.51
```

3. If you encounter an error, read the error message printed to the terminal carefully and attempt to resolve the issue and run the `addarrvals.sh` script again or ask your tutor for assistance