Computer Program Solutions

QUESTION 5

Ethan Van Rensburg – System Development
Learnership Candidate

18 – 23 June 2024
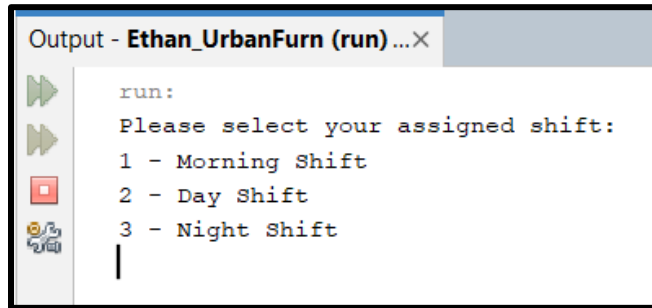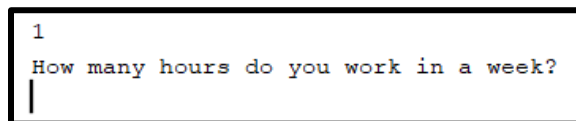
Contents

Test Cases:

Case 1:

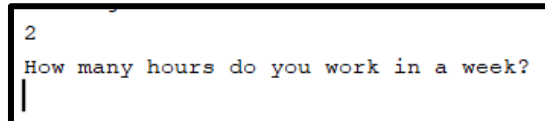If the user runs the program, the program will prompt them with an input:

```
Output - Ethan_UrbanFurn (run)...×

run:
Please select your assigned shift:
1 - Morning Shift
2 - Day Shift
3 - Night Shift
|
```
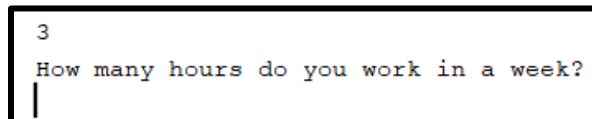
If the user chooses an input within the program's range (1-3), they will then continue through the system.
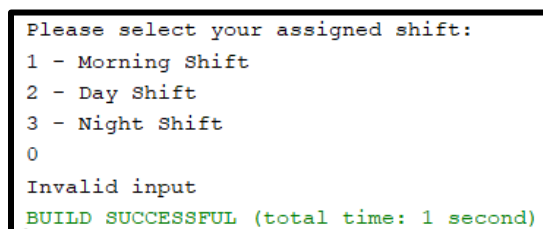
```
1
How many hours do you work in a week?
|
```

```
2
How many hours do you work in a week?
|
```
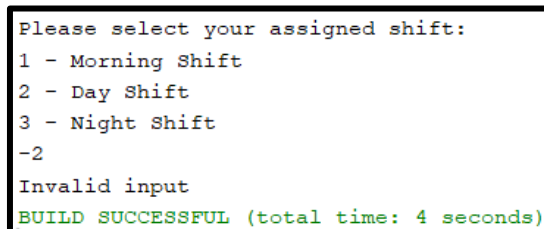
```
3
How many hours do you work in a week?
|
```

If the user selects an input that is not within the range and that is not an integer, they will be presented with the following:

```
Please select your assigned shift:
1 - Morning Shift
2 - Day Shift
3 - Night Shift
0
Invalid input
BUILD SUCCESSFUL (total time: 1 second)
```

```
Please select your assigned shift:
1 - Morning Shift
2 - Day Shift
3 - Night Shift
-2
Invalid input
BUILD SUCCESSFUL (total time: 4 seconds)
```

The last input result is involved with the input of Strings, as the program rejects Strings and produces corresponding exception errors due to their entries.s

```
Please select your assigned shift:
1 - Morning Shift
2 - Day Shift
3 - Night Shift
d
Exception in thread "main" java.lang.NumberFormatException: For input string: "d"
        at java.base/java.lang.NumberFormatException.forInputString(NumberFormatExceptio:
        at java.base/java.lang.Integer.parseInt(Integer.java:588)
        at java.base/java.lang.Integer.parseInt(Integer.java:685)
        at ethan_urbanfurn.Ethan_UrbanFurn.main(Ethan_UrbanFurn.java:22)
C:\Users\ETHAN.V\AppData\Local\NetBeans\Cache\22\executor-snippets\run.xml:111: The foll
C:\Users\ETHAN.V\AppData\Local\NetBeans\Cache\22\executor-snippets\run.xml:68: Java retu
BUILD FAILED (total time: 1 second)
```

To resolve any issues or errors, simply re-click the Run button and users will be given the program's beginning for the proper input.

Case 2:

After the shift, the user will then need to select the hours, below is the results of each outcome:

Below the Base range:

```
How many hours do you work in a week?
0
Invalid input
BUILD SUCCESSFUL (total time: 1 minute 40 seconds)
```

```
How many hours do you work in a week?
34
```

Within the Base range:

```
How many hours do you work in a week?
40
```

Above the Base range:

```
How many hours do you work in a week?
70
```

Case 3:

If the user's input for the hours is not a valid integer, the following will be displayed:

```
How many hours do you work in a week?
f
Exception in thread "main" java.util.InputMismatchException
        at java.base/java.util.Scanner.throwFor(Scanner.java:964)
        at java.base/java.util.Scanner.next(Scanner.java:1619)
        at java.base/java.util.Scanner.nextInt(Scanner.java:2284)
        at java.base/java.util.Scanner.nextInt(Scanner.java:2238)
        at ethan_urbanfurn.Ethan_UrbanFurn.main(Ethan_UrbanFurn.java:28)
C:\Users\ETHAN.V\AppData\Local\NetBeans\Cache\22\executor-snippets\run.xml:111: The following error
C:\Users\ETHAN.V\AppData\Local\NetBeans\Cache\22\executor-snippets\run.xml:68: Java returned: 1
```

The program is designed to work with integers only, therefore, if a String or any other data type is entered, the above will display. This is known as an Exception error.

Feedback:

- Ensure all documents are up to date and that research is documented according to their respective sections.
- Ensure costs and resources are accounted for in their respective documents of validation and evaluation.
- Ensure that diagrams and charts are accurate and represent system design correctly.