The George Washington University

Advanced Software Paradigms (CSCI 6221.10)

Homework Assignment #4

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Submitted to:

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Steps for execution:

1. The provided program is written in **Python**. To run it, use any online Python compiler, for example, https://www.programiz.com/python-programming/online-compiler/
2. Copy the code from the attached source code .txt file and paste it into the code area in the online compiler.
3. Click the "Run" button in the compiler.
4. Review the output/result displayed by the compiler, as illustrated in Figure 1.

Screenshots:

1. The program displays two data type options and the user selects one.

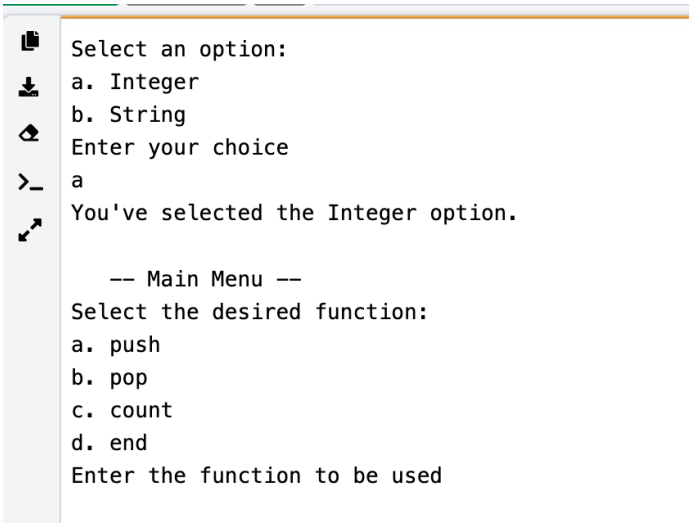

Figure 1: Result when datatype input is correct

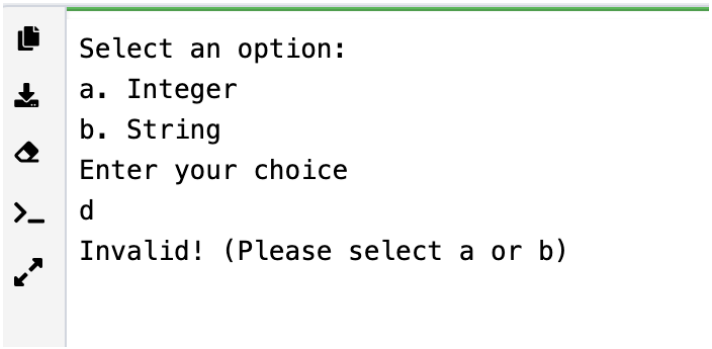

Figure 2: Result when datatype input is incorrect

2. When the push function is used

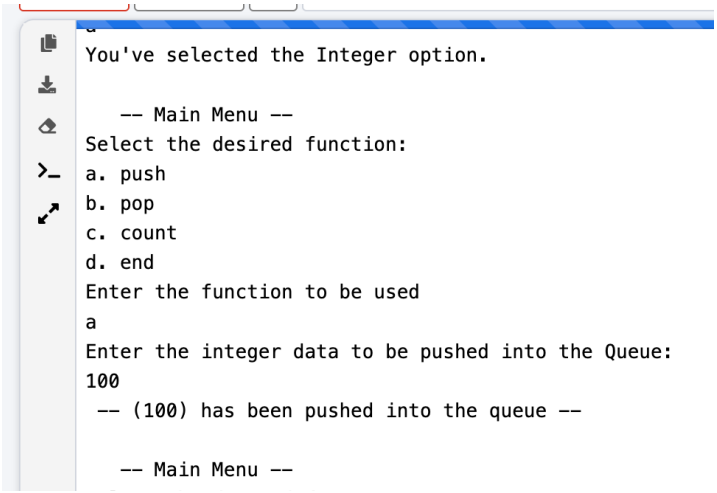

Figure 3: Result when the push function is used

3. When the push function is used with incorrect datatype

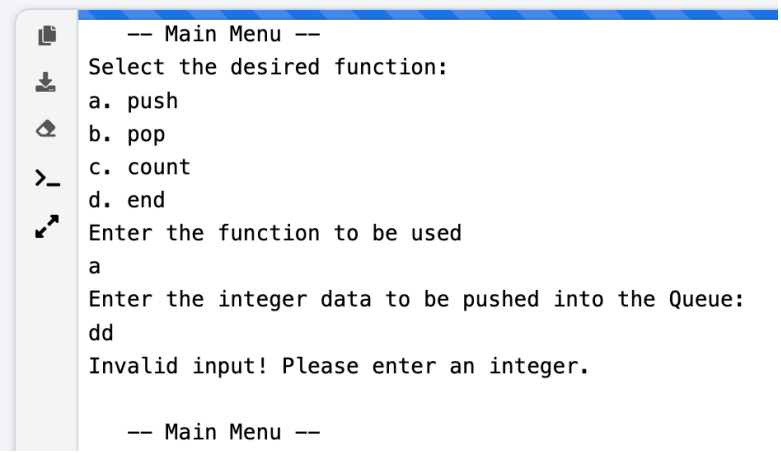

Figure 4: Result when incorrect datatype is used in push function

4. When the pop function is used

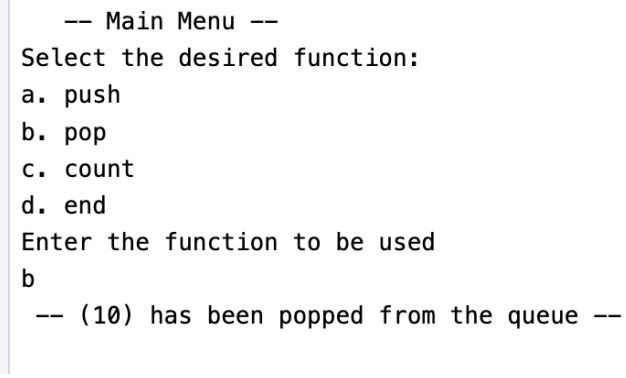

Figure 5: Result when the pop function is used

5. When the pop function is used when there is no data in the queue

```
   -- Main Menu --
Select the desired function:
a. push
b. pop
c. count
d. end
Enter the function to be used
b
 -- There is no element left in the queue. So, nothing can be popped --

   -- Main Menu --
Select the desired function:
a. push
```

Figure 6: Result when the pop function is used when no data in the queue

6. When the count function is used

```
   -- Main Menu --
Select the desired function:
a. push
b. pop
c. count
d. end
Enter the function to be used
c
 -- The number of elements in the queue is : 2 --

   -- Main Menu --
```

Figure 7: Result when the count function is used

7. When the end function is used

```
   -- Main Menu --
Select the desired function:
a. push
b. pop
c. count
d. end
Enter the function to be used
d
 -- Program is ending...  --


** Process exited - Return Code: 0 **
Press Enter to exit terminal
```

Figure 8: Result when the end function is used