

Program Characteristics

- Program check the input to find an integer in 0..25 range. Otherwise shows an error message.
- I checked negative numbers, string and a mixture of both as bad inputs. Also I tried numbers outside the range and program showed the error message.

The Author of this code can revise the program to resolve the following problems

- 1) Very confusing screen output. It would be so better to notify the user, what is being printed at each time. For example, the sequence of alphabets can be printed in just one line. Using `printf` as opposed to `println` might be helpful.
- 2) Although the number of non-vowel alphabets (consonant) is 21 (i.e. 26 - 5), this program shows 22 at the end.
- 3) When printing the sequence of alphabets, the vowels are printed two times. One in lower case and the other is in upper case format. However, only the upper case letter should be displayed.

Test Cases

A) Testing for bad inputs

```
ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
-1
Invalid input    OK

ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
26
Invalid input    OK

ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
a string
Invalid input    OK

ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
25.2
Invalid input    OK
```

B) Testing for valid inputs

```
ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
```

```
25
```

```
z
```

```
A      ehsan: Vowels are repeated in the sequence
```

```
a
```

```
b
```

```
c
```

```
d
```

```
E
```

```
e
```

```
f
```

```
g
```

```
h
```

```
I
```

```
i
```

```
j
```

```
k
```

```
l
```

```
m
```

```
n
```

```
O
```

```
o
```

```
p
```

```
q
```

```
r
```

```
s
```

```
t
```

```
U
```

```
u
```

```
v
```

```
w
```

```
x
```

```
y
```

```
z
```

```
22      ehsan: The number of non-vowel letters
```

```
ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
```

```
0
```

```
a      OK
```

```
<the rest is the same>
```

```
ehsan@chortkeh:~/ICS/211/LabBBT> java ReviewJavaAssignment
Please enter an integer that represents an alphabeth
```

```
15
```

```
p      OK
```

```
<the rest is the same>
```