

Reflection & Test Plan - Assignment 1 Question 24

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Commentary

- significant types of errors/warnings you faced
 - There were a few ways to break this program. The console takes 2 inputs, a selector the currency and an amount. The selector of the currency had a lot of opportunity for the user not to pick the right option (1 or 0) so I added some error catching.
- whether you were able to correct them as soon as you encountered them
 - I added "You have not entered a valid currency type." for not entering 0 or 1 for the currency select.
- what code optimization techniques you followed, if any
 - I added an extra unused variable in the program called curCAD. I did this to make it clear which currency was being converted and for future additions to the program. It was the opposite of optimization but I felt it was necessary to make the program clear and extensible.

Normal Data

Test Run 1

Program Input

0
34

Expected Program Output

CAD: 34.0, INR: 1855.470828451353

Actual Output

as expected

Test Run 2

Program Input

1
12.4

Expected Program Output

INR: 12.4, CAD: 0.227219956

Actual Output

as expected

Abnormal Data

Test Run 3

Program Input

2
123

Expected Program Output

You have not entered a valid currency type.

Actual Output

as expected

Test Run 4

Program Input

<empty input>

Expected Program Output

Error

Actual Output

```
java.lang.NumberFormatException: For input string: ""
    at java.lang.NumberFormatException.forInputString(NumberFormatException.java:65)
    at java.lang.Integer.parseInt(Integer.java:504)
    at java.lang.Integer.parseInt(Integer.java:527)
    at CurrencyConverter.getCurrency(CurrencyConverter.java:44)
    at CurrencyConverter.<init>(CurrencyConverter.java:36)
    at answers.main(answers.java:86)
```

Test Run 5

Program Input

0

<empty input>

Expected Program Output

Error

Actual Output

```
java.lang.NumberFormatException: empty String
    at sun.misc.FloatingDecimal.readJavaFormatString(FloatingDecimal.java:1011)
    at java.lang.Double.parseDouble(Double.java:540)
    at CurrencyConverter.getCurrency(CurrencyConverter.java:46)
    at CurrencyConverter.<init>(CurrencyConverter.java:36)
    at answers.main(answers.java:86)
```