**ECSE 428 – Software Engineering Practice**

**Assignment B: Test Driven Development**

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# Domain Logic Tests

## The layout contains any number of elements

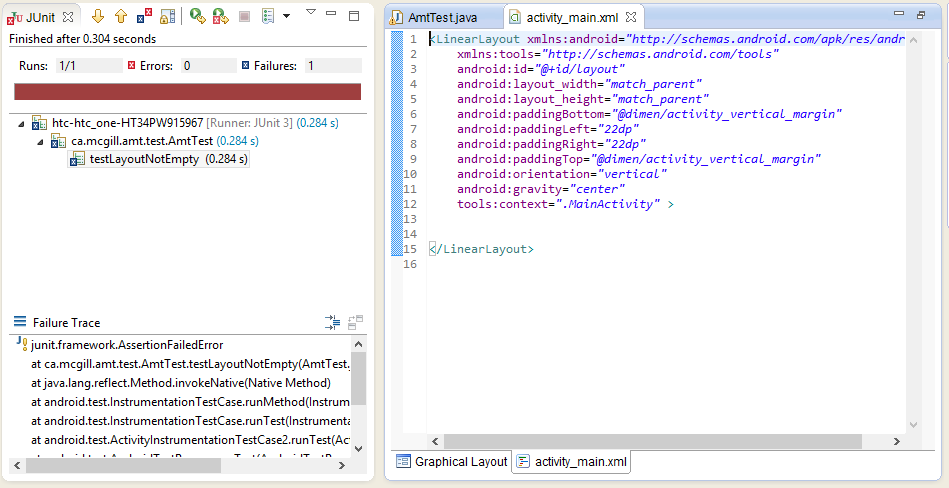
Check if the application is properly formatted by verifying that that elements appear on screen

Setup: None

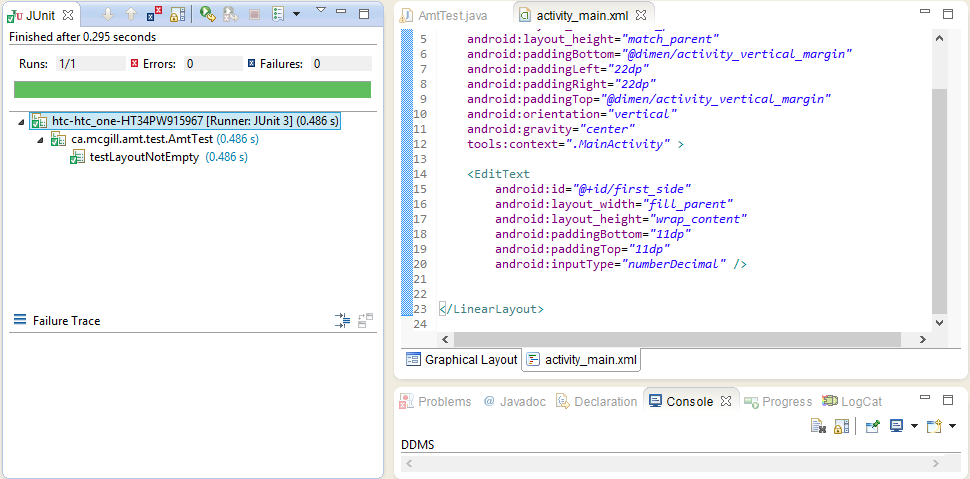
Expected Result: The layout should have elements in which the user can input their

specifications

Failing Screenshot:



Passing Screenshot

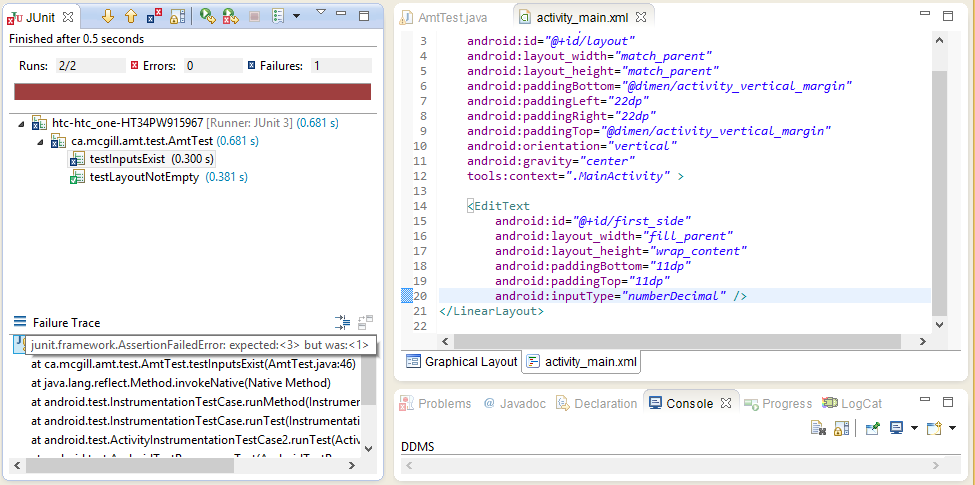


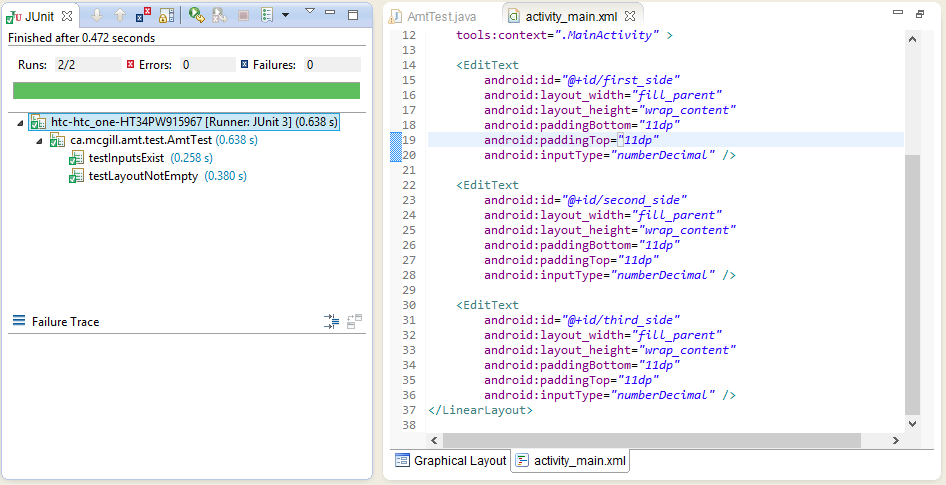
## Three input fields exist

Verify that the input fields for the user exist

Setup: None

Expected result: The layout should contain three input fields, one for each side of the triangle

Failing Screenshot:

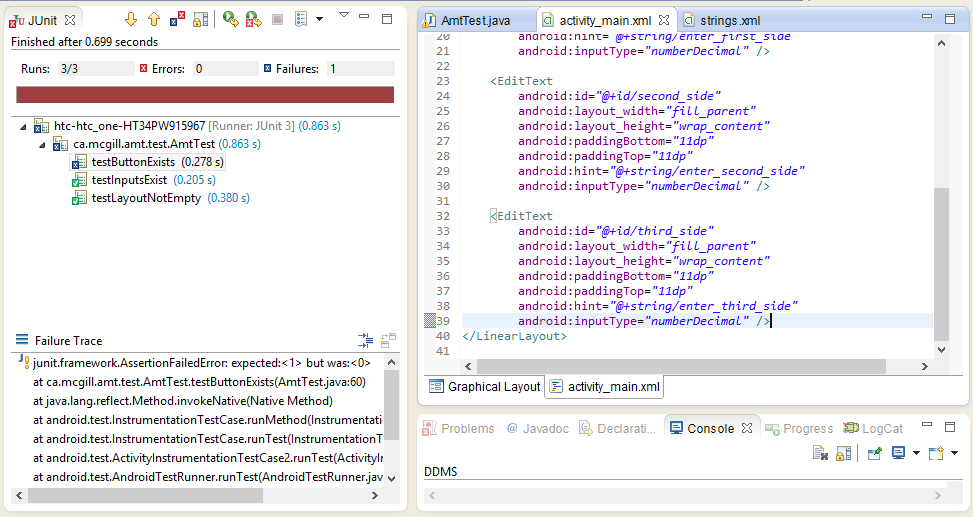
 Passing screenshot:

## Submit button exists

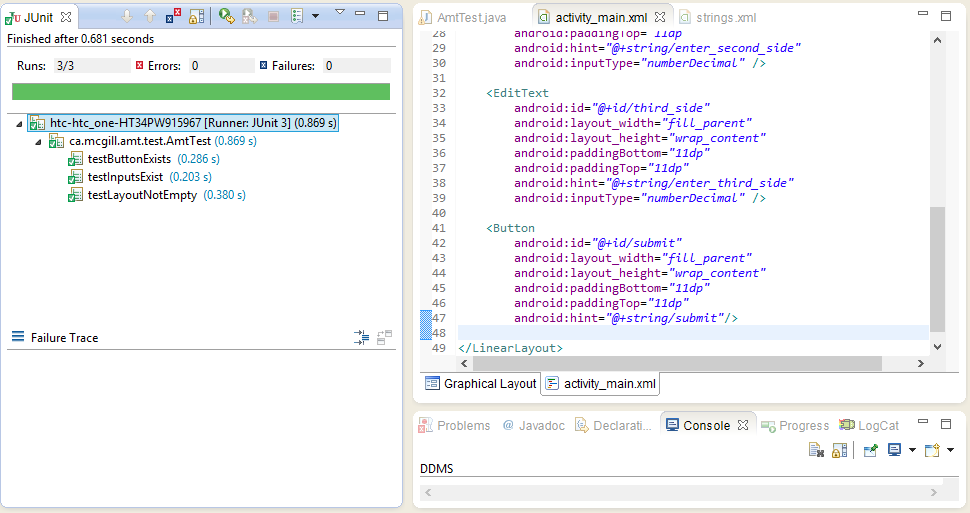
Setup: None

Expected result: The activity should display a button that a user presses to obtain a result for their input

Failing screenshot:



Passing screenshot:



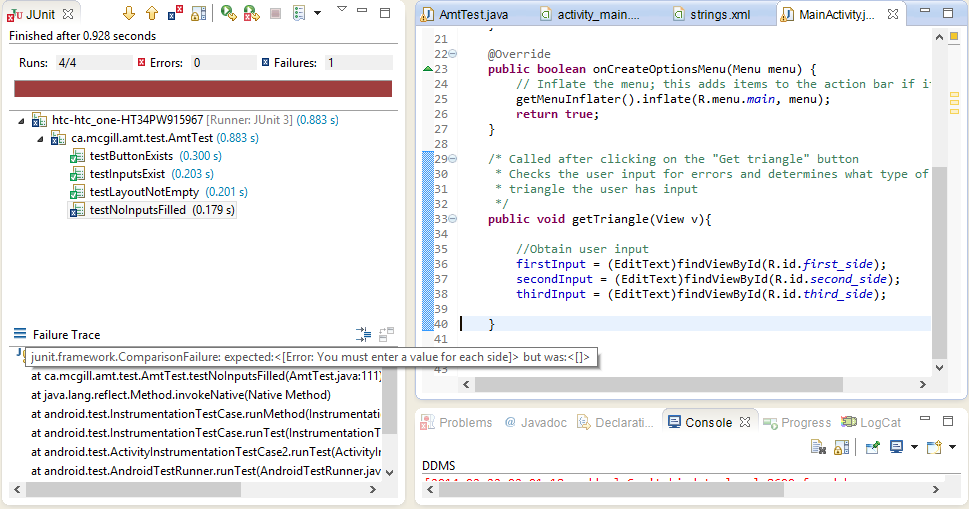
# User Error Tests

## None of the inputs are filled

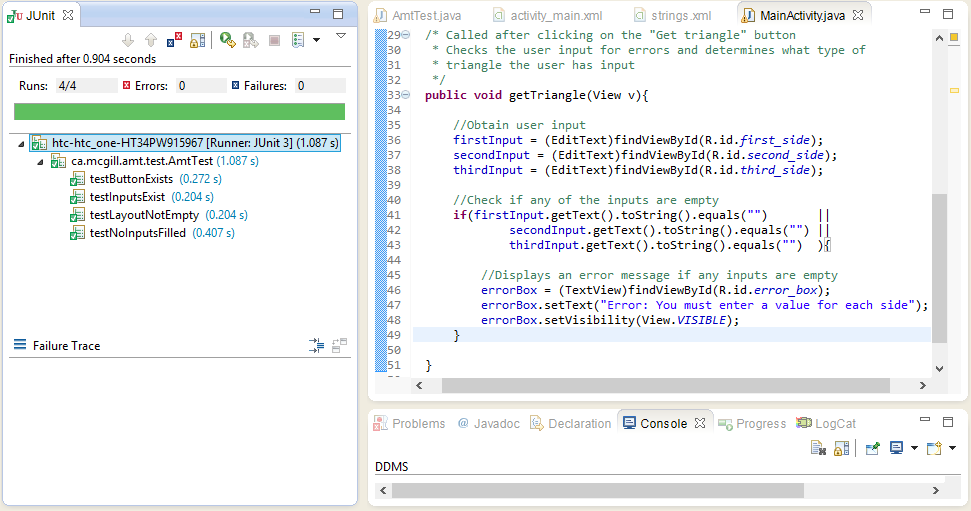
Setup: Each input is left blank, then the submit button is pressed

Expected result: An error message appears telling the user that all inputs must be filled

Failing screenshot:



Passing Screenshot:



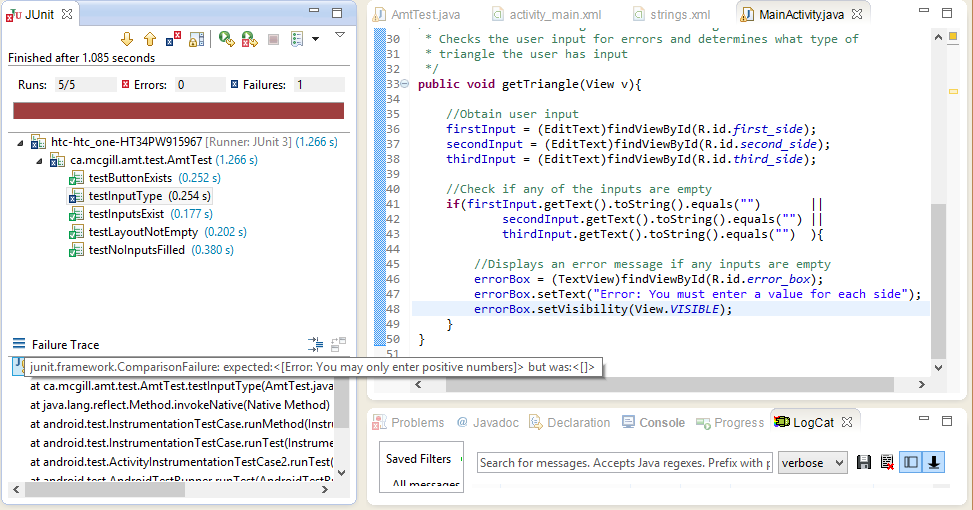
## The input type is invalid

Verify that the user can only enter whole numbers

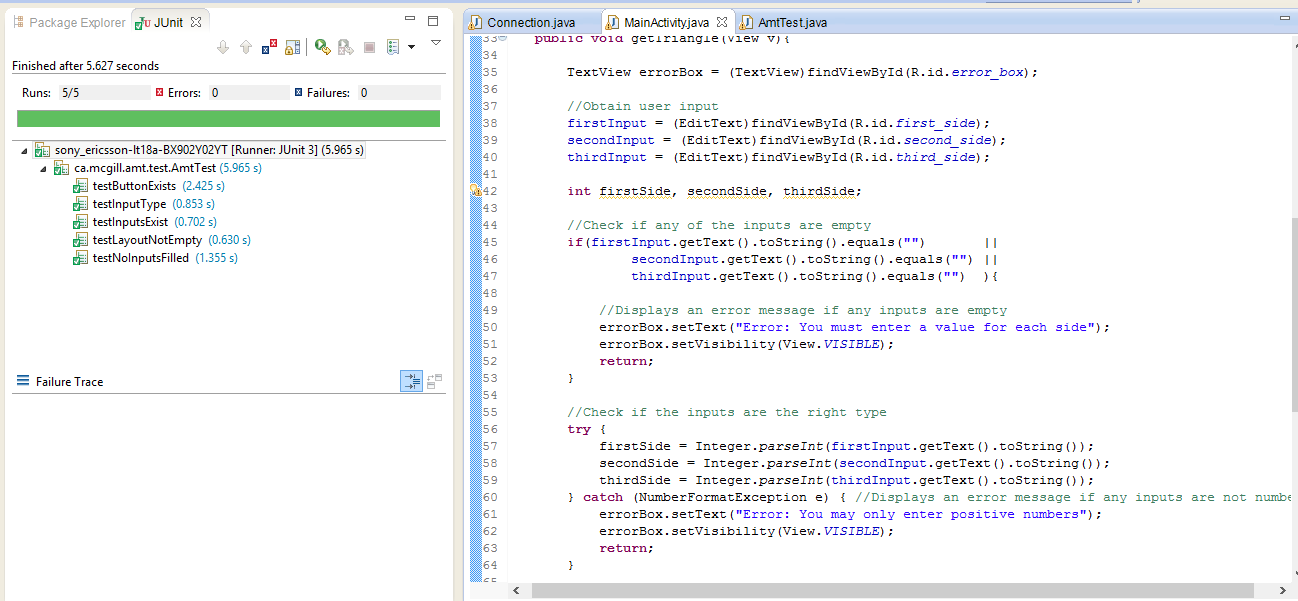
Setup: Input characters and negative numbers into the text fields

Expected Result: An error message appears telling the user they must only enter whole numbers

Failing screenshot:



Passing screenshot:



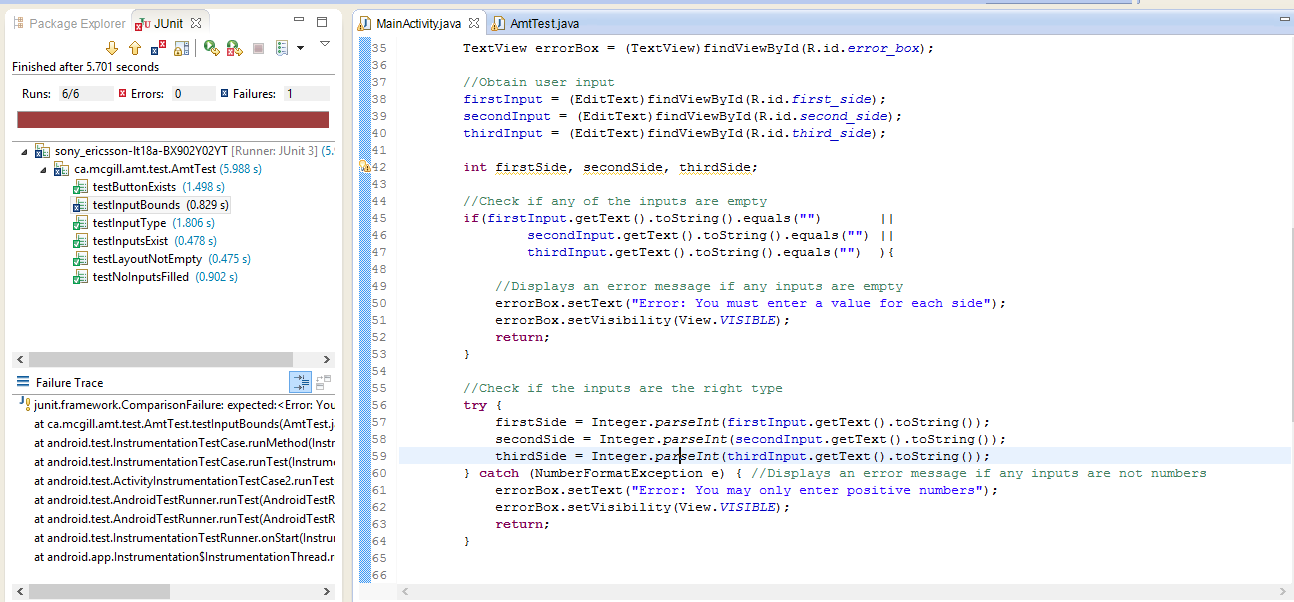
## The input is out of bounds

The user must input numbers between 1 and 100 inclusive

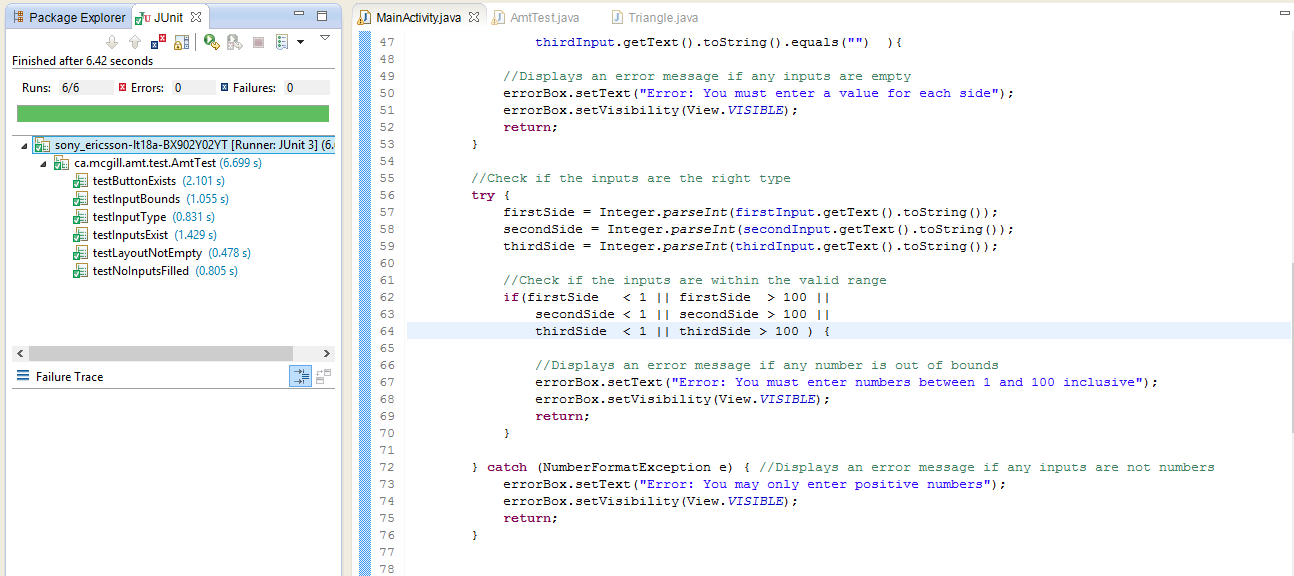
Setup: Set values to numbers outside of the valid range

Expected Result: A message appears telling the user that they must only enter numbers between 1 and 100 inclusive

Failing screenshot:



Passing screenshot:



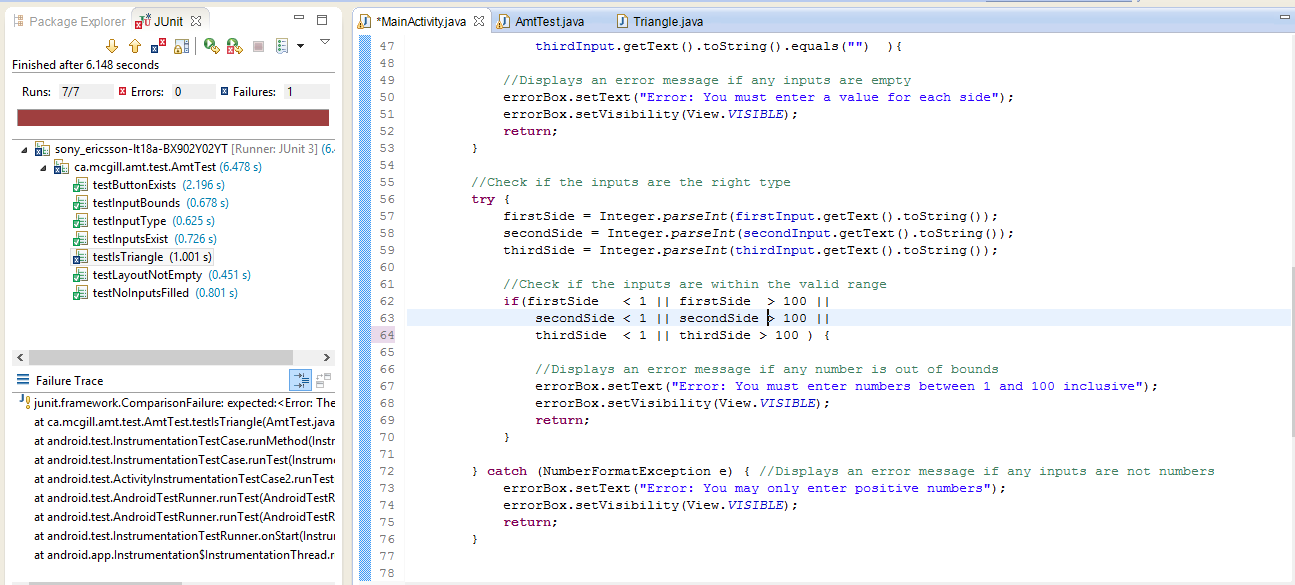
## The input does not create a triangle

The values of the sides the user entered does not create a triangle

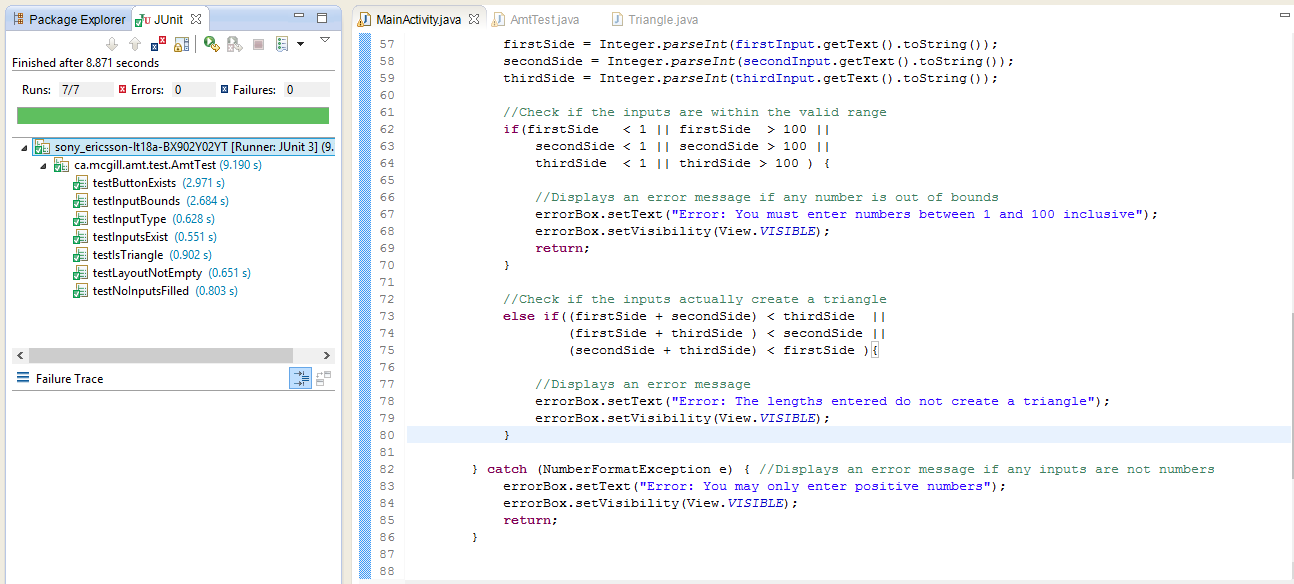
Setup: Set two of the inputs such that their sum is smaller than the third input

Expected Result: An error message will appear telling the user that their inputs do not create a triangle

Failing Screenshot:



Passing Screenshot:



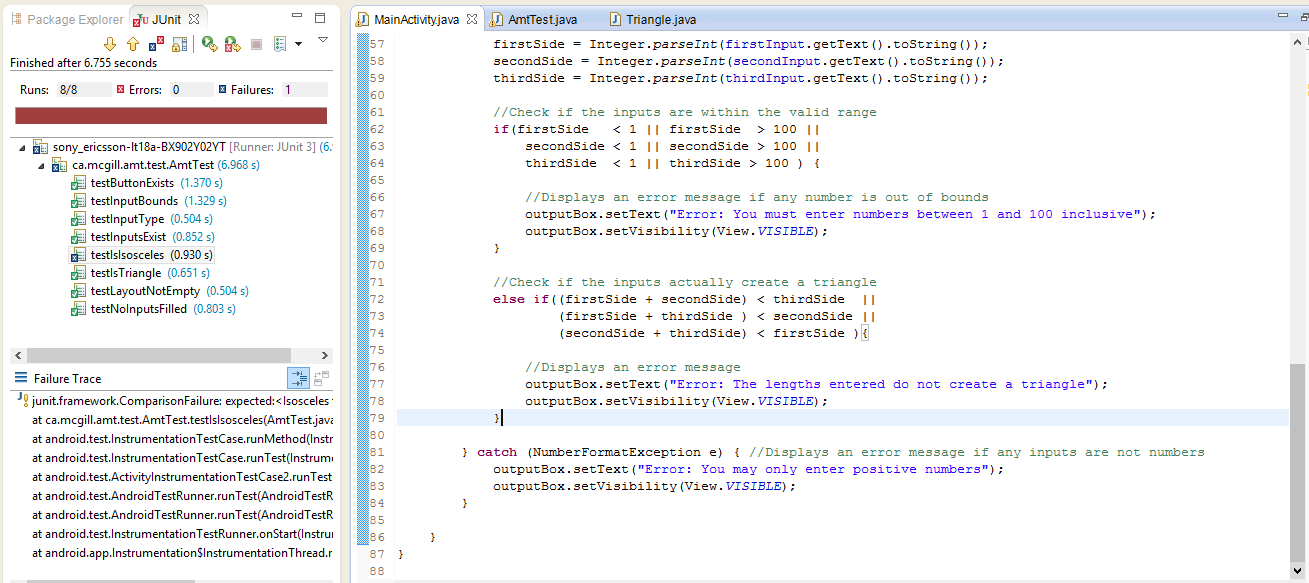
# Triangle Business Rules

## Isosceles

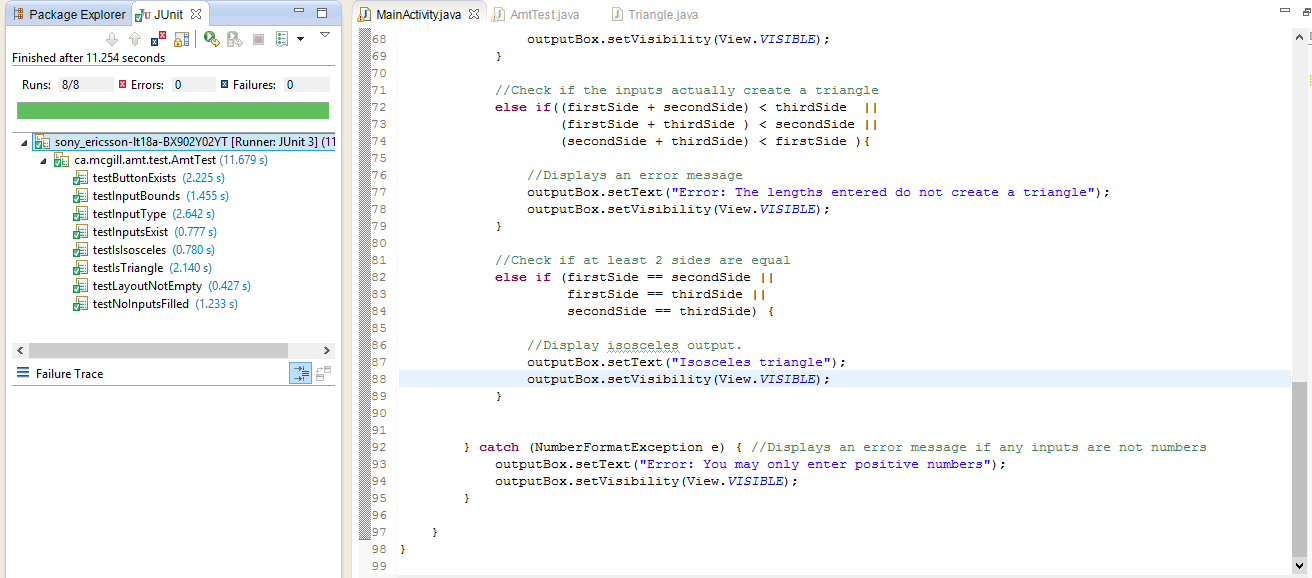
The user entered the same value for 2 sides.  
Set up: Set 2 inputs to have the same value.

Expected result: A message will appear telling the user that the inputs form an isosceles triangle.

Failing screenshot:



Passing screenshot:

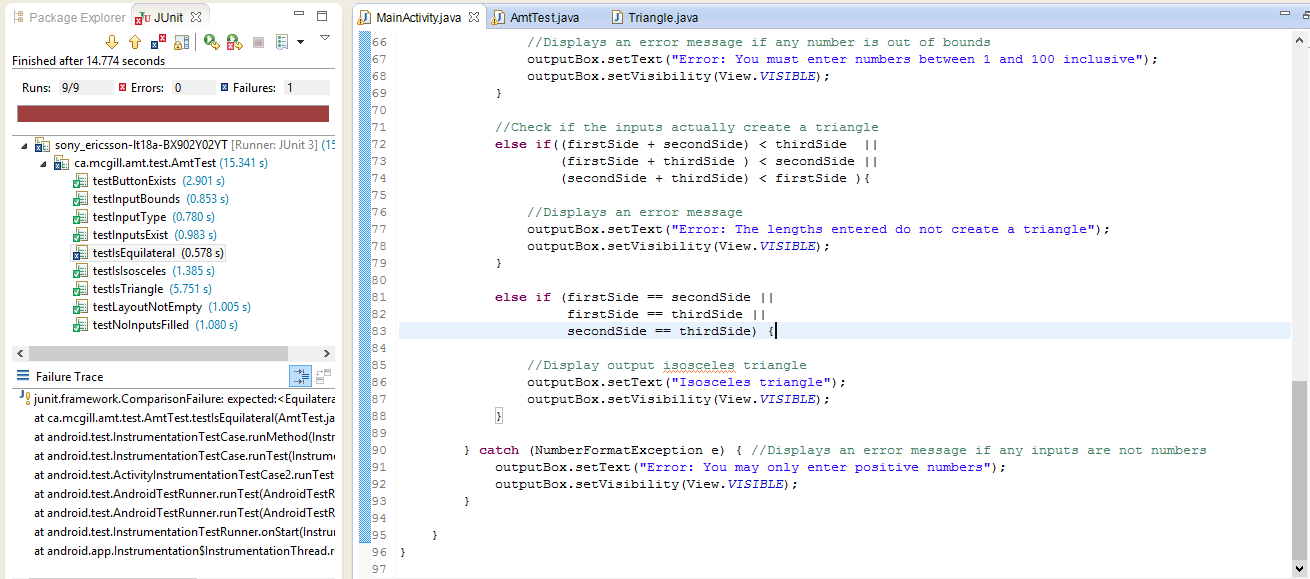


## Equilateral

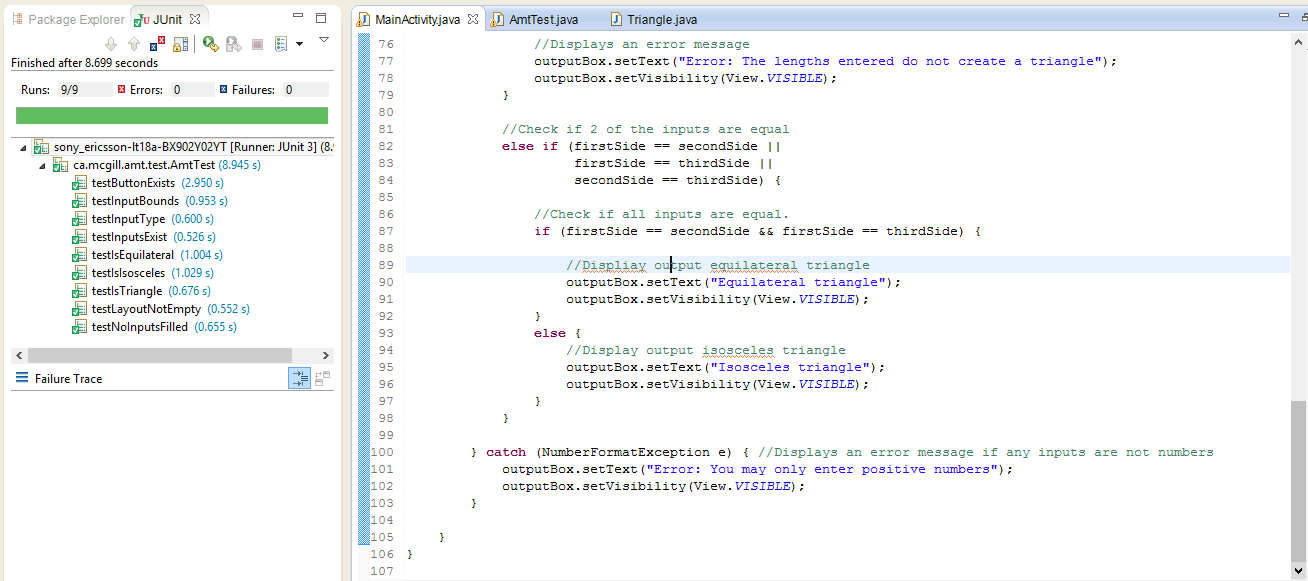
The user entered the same value for all three sides.  
Set up: Set all three inputs to have the same value.

Expected result: A message will appear telling the user that the inputs form an equilateral triangle.

Failing screenshot:



Passing screenshot:



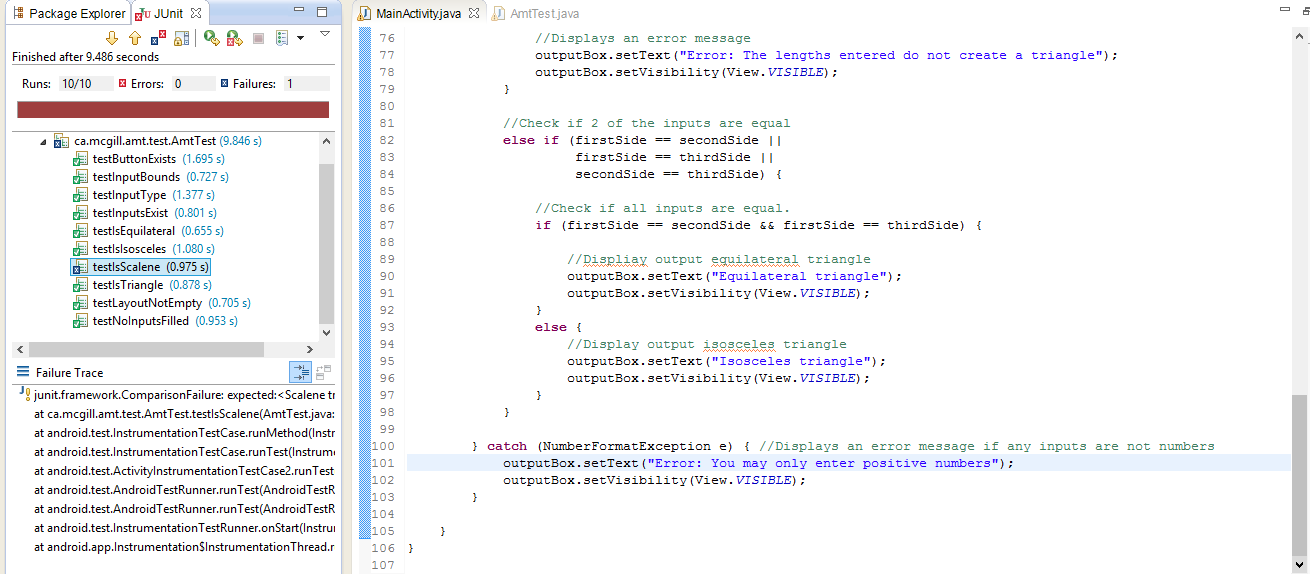
## Scalene

The user entered 3 different values for 3 sides.

Set up: Set 3 inputs to have different values.

Expected result: A message will appear telling the user that the inputs form a scalene triangle.

Failing screenshot:



Passing screenshot:

