3-2 Milestone 2 Narrative

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CS 499

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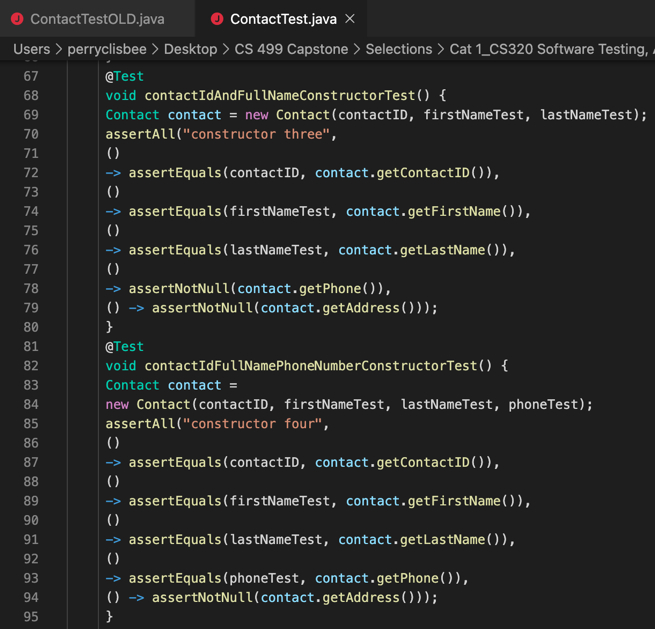
**Briefly describe the Artifact. What is it? When was it created?**

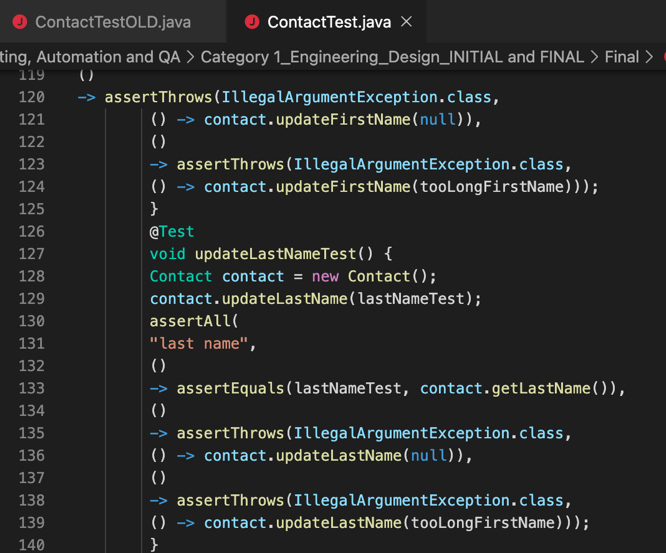
The artifact includes a ContactTest.java file that implements JUnit methods to test the attributes of the Contact class. The objective is to create tests that the ID is not null, updateable, and less than or equal to 10 characters. You would also be testing a potential client’s needs for other variables such as firstName, lastName, phoneNumber and address. These JUnit tests can be adjusted to be used with any additional parameters needed to validate the Contact class data. This code was initially created during the CS320 course, with the intent to help the student learn various java functionality.

**Justify the inclusion of the Artifact in your ePorfolio. Why did you select this item? What specific components of the Artifact showcase your skills and abilities in software development? How was the artifact improved?**

The ContactTest.java file and its associated Contact.java file were included in the ePorfolio as the test file code displayed the test variations that could be employed to effectively test variable combinations entered by the user. Initially, the test file included specifically constructors that tested to ensure parameters for a new contact were asserted to have data, or a NotNull status. The first one tested that all necessary variables were not null. The next one tested to make sure the parameter entered matched the contactID, and that all other variables were NotNull. This continues on testing for assertEquals() for both contactID and firstNameTest. As the tests stopped there, I added several other assert variations such as assert.Update and assertThrows() and assertEquals() methods to validate or notify of an illegal argument. Seen below are these additions.

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Description automatically generated These display constructor tests adding additional assertEquals() parameters 

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These three sections above of added code include assertThrows() methods pinpointing an error with an Illegal Argument notification under conditions

Documentation was added for each @test to ensure other developers will understand what was attempted here.

**Did you meet the course objectives you planned to meet with this enhancement in Module One?**

The enhancements met my goals for overall enhancement as it added JUnit tests that covered a wide range of possible outcomes, to ensure minimal error on the backend. Additional code documentation was added that added clear description for each code segment.

**Reflect on the process of enhancing and/or modifying the Artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

When modifying the artifact, I did a lot of code cross referencing online to better understand the purpose of the different assert methods, and how to implement them. For this class, I could not access a virtual environment previously supplied by SNHU, so instead used available software such as XCode to view and alter as necessary. As well, initial code was completed via a Windows OS, as now it was completed on a MacOS, which actually made it easier to manipulate.