

Test Plan

CSCI 362 Testing Framework

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1.0 INTRODUCTION

For our team project we are testing some functions within the OpenMRS open source software.

2.0 OBJECTIVES AND TASKS

2.1 Objectives

The overall objective is to implement a testing framework to run within our chosen open source software.

2.2 Tasks

Deliverable #1: Checkout or clone a project. Run existing tests and collect results. COMPLETE

Deliverable #2: Produce a detailed test plan for our project.

Deliverable #3: Design and build an automated testing framework that we will use to implement our test plan.

Deliverable #4: Complete the design and implementation of our testing framework.

3.0 SCOPE

General

As of 10/4/20 we have chosen the following classes to test:

- Allergy
- DateUtil
- DrugsByNameComparator
- DrugOrder
- Graph
- OrderUtil
- PatientState
- PersonMergeLogData
- UserByNameComparator

****Subject to change****

Tactics

In order to test these methods we have to implement a testing framework through use of a driver script. First we have to plan, design and implement an initial five of an overall 25 test cases.

4.0 TESTING STRATEGY

We will create an automated testing script that will run through the 25 test cases our group has created for OpenMRS, parse the results, and save them in an HTML file.

Requirements traceability

Each Test case will have a unique test ID which will allow for easy traceability of all the test cases

Test recording procedures

All output will be sent to an HTML file and displayed in a web browser.

5.0 HARDWARE/SOFTWARE REQUIREMENTS

Hardware: Virtual Machine/Computer

Software: Terminal, Java, Github, and Git

6.0 TEST SCHEDULE

- Deliverable 3: Automated Testing Framework. (11/05/20)
 - Extract methods and classes to be tested
 - Create a script that can automatically run several test cases
 - Create 5-10 test cases a week
- Deliverable 4: Run 25 Test Cases and Pipe them to HTML File (11/17/20)
- Deliverable 5: Test deliberate errors in the Code (11/24/20)
- Final Report and Presentation (12/03/20)

7.0 CONSTRAINTS

Time, Meetings, Hardware/Software Constraints

8.0 FEATURES TO BE TESTED

Class	Method
Allergies	Add(Allergy a1)
DateUtil	truncateToSeconds(Date date)

DrugByNameComparator	compare(Drug d1, Drug d2)
DrugOrder	hasSameOrderableAs(DrugOrder d1)
Graph	topographicalSort()
OrderUtil	isType(OrderType o1, OrderType o2)
PateintState	Copy(PatientState p)/compareTo(PatientState p)
PersonMergeLogData	computeHashTable()
UserByNameComparator	compare(User u1, User u1)

9.0 Test Cases

Only test cases for DrugsByNameComparator class are available as of now.

- **TestCase 1**

- 01
- DrugsByNameComparator
- This class will compare two strings and put them in alphabetical order
- compare(String d1, String d2)
- This test will test the compare() when d1 comes before d2 alphabetically
- Allegra Dayquil
- 1
- Driver

- **TestCase 2**

- 02
- DrugsByNameComparator
- This class will compare two strings and put them in alphabetical order
- compare(String d1, String d2)
- This test will test the compare() when d2 comes before d1 alphabetically
- Dayquil Allegra

- -1
 - driver
- TestCase 3
 - 03
 - DrugsByNameComparator
 - This class will compare two strings and put them in alphabetical order
 - compare(String d1, String d2)
 - This test will test the compare() when d1 and d2 are the same
 - Allegra Allegra
 - 0
 - Driver
- TestCase 4
 - 04
 - DrugsByNameComparator
 - This class will compare two strings and put them in alphabetical order
 - compare(String d1, String d2)
 - This test will test the compare() when d1 comes before d2 alphabetically, but d2 has a number in it that would make it come first
 - 2Allegra 1Dayquil
 - 1
 - Driver
- TestCase 5
 - 05
 - DrugsByNameComparator
 - This class will compare two strings and put them in alphabetical order
 - compare(String d1, String d2)
 - This test will test the compare() when d1 is a string and d2 is null
 - Allegra NULL
 - Error
 - driver