STQA Mini-Project 1

Title:

Manual Testing of Application

Problem Definition:

Create a Medical Healthcare System by selecting relevant system environment / platform and programming languages. Narrate concise Test Plan consisting features to be tested and bug taxonomy. Prepare Test Cases inclusive of Test Procedures for identified Test Scenarios. Perform selective Black-box and White-box testing covering Unit and Integration test by using suitable Testing tools. Prepare Test Reports based on Test Pass/Fail Criteria and judge the acceptance of application developed.

Software Requirements:

Eclipse java, Java, JavaFx, MYSQL

Hardware Requirement:

8GB Ram

Learning Objectives:

1. To understand manually testing and preparation of test cases.
2. To understand different types of testing.
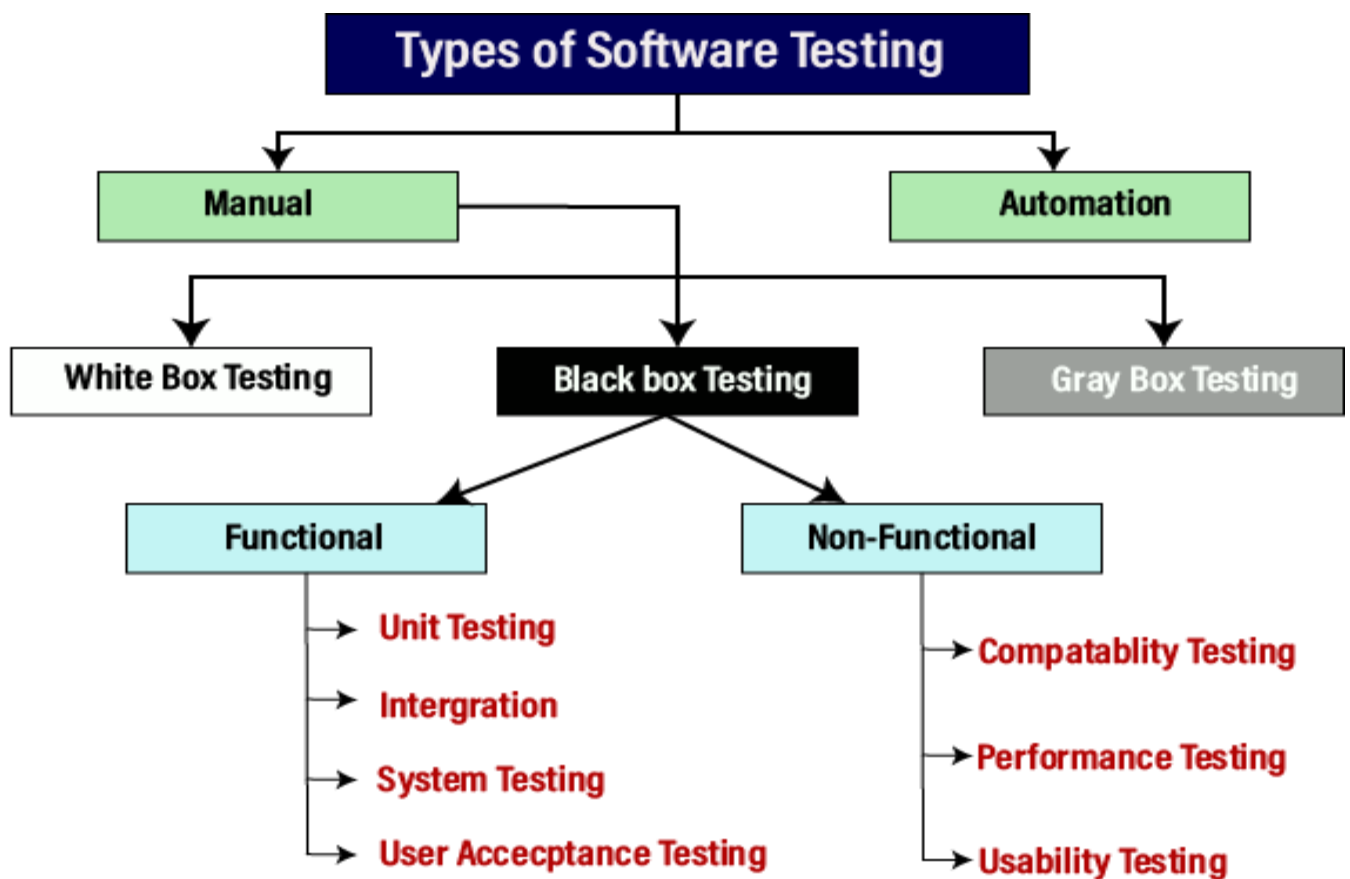
Learning Outcomes:

Students will be able to:

1. Prepare test cases and manually test applications.
2. Understand different types of testing paradigms.

Theory:

1. What is Testing?

- Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free.
- Testing is done to find bugs and errors that can be resolved to make software reliable and durable.

2. Testing types

3. Unit Testing:

- It focuses on the smallest unit of software design.
- In this we test an individual unit or group of interrelated units.
- It is often done by programmers by using sample input and observing its corresponding outputs.
- Examples: In a program we are checking if loop, method or function is working fine, Misunderstood or incorrect, arithmetic precedence.

4. **Integration Testing:**
   - It is defined as a type of testing where software modules are integrated logically and tested as a group.
   - A typical software project consists of multiple software modules, coded by different programmers.
5. **White Box Testing:**
   - It is used for verification.
   - In this we focus on internal mechanisms i.e.**how the output is achieved?**
   - It is a software testing technique in which internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security.
   - In white box testing, code is visible to testers so it is also called Clear box testing, Open box testing, Transparent box testing, Code-based testing and Glass box testing.
6. **Black Box Testing:**
   - It is used for validation.
   - In this we ignore internal working mechanisms and focus on **what is the output?**

Application Developed:

Abstract:

An application that can be used to maintain digital records of the patients admitted at an covid ward. This will help to have the records at one place and neatly maintained.

Scope:
- To create test cases for a healthcare application to determine the correctness of the application and report failure if any.
- To test manually
- Manual testing is used to accurately determine the actions which the actors can do on the system.

Technology Stack: Java (Backend), JavaFx (GUI)

Testing: Manually tested

Features:
- Login
- Add Admin
- Create new entry
- Delete entry
- Update entry
- Find details of patient
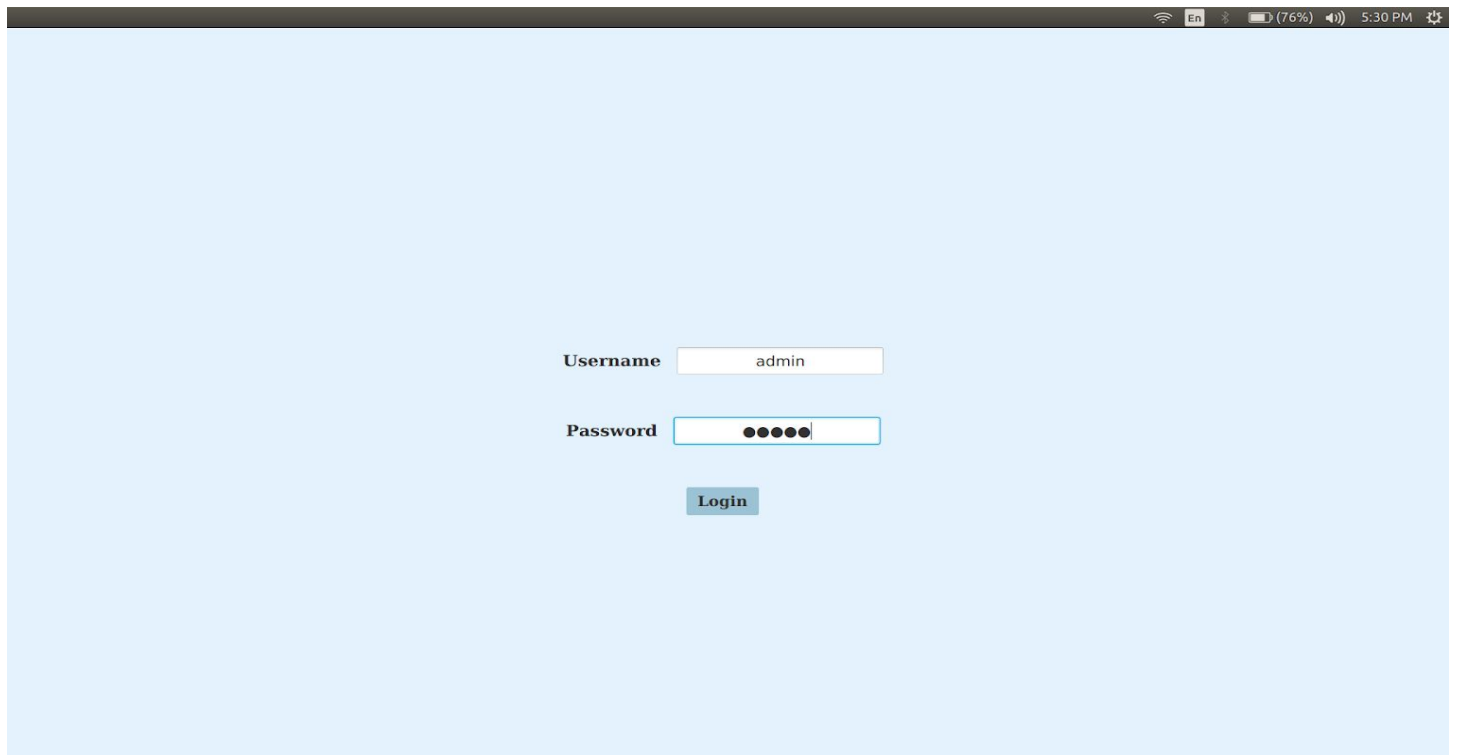- Check all the entries

Team:

Srushti S. Raybhoge (41258)

Sahil S. Patil (41250)

Pralhad A. Kulkarni (41254)

Test Cases and Output:
Screenshots of the application:
LOGIN:

HOMEPAGE:

Add New Patient	Find/Delete Patient	Update Patient	Add New Admin

```
1
ID: MondayPralhad
Fullname: Pralhad
Email: Pralhad@gmail.com
Age: 20B
Address: Anudh
Ward Number: 15A
Phone Number: 9130297838
Emergency Number: 9874563210
Quarantine Type: Home Quarantined
Temperature: 120 deg
Oxygen Level: 98
Admitted Date: 2020-10-26
Discharged Date: 2020-11-26
Total Bill: 0


2
ID: WEDNESDAYSahil
Fullname: Sahil
Email: Sahil@gmail.com
Age: 30
Address: Baner
Ward Number: 8
Phone Number: 7412589630
Emergency Number: 9874563210
Quarantine Type: Hospitalized
Temperature: 120 deg
Oxygen Level: 98
Admitted Date: 2020-10-26
Discharged Date: 2020-11-26
Total Bill: 5000
```

Get Details

Total Count   3

Logout

ADD/UPDATE NEW ENTRY:

Full Name	Srushti		**Age**	20

Email	srushti@gmail.com		**Address**	Nigdi

Ward	5U		**Phone Number**	9130297838

Type of Quarantine	Home		**Emergency Number**	9130297838

Temperature	98		**Oxygen Level**	98

Date of admission	27/11/2020		**Date of Discharge**	4/12/2020

Bill Amount	0

Save	**Clear**	**Back**

DELETE ENTRY:

Enter Id   WEDNESDAYSru   Get Details

ID: WEDNESDAYSrushti
Fullname: Srushti
Email: Srushti@gmail.com
Age: 15
Address: Yamunanagar, Ni
Ward Number: 15A
Phone Number: 91302978
Emergency Number: 9874
Quarantine Type: Home Q
Temperature: 120 deg
Oxygen Level: 98
Admitted Date: 2020-10-26
Discharged Date: 2020-11-26
Total Bill: 5000

Details

Patient DELETED

Record is deleted.

OK

Delete   Cancel

ADD NEW ADMIN:

Username [   ]

Password [   ]

Save   Cancel

Conclusion:

Thus we manually tested the application and understood testing types. The application can be used in small wards and later scaled to cloud based on the requirements.