Acceptance Testing

UAT Initiation and Design

Date	19 September 2022
Team ID	PNT2022TMID43270
Project Name	Signs with Smart Connectivity for Better Road Safety
Maximum Mark	4marks

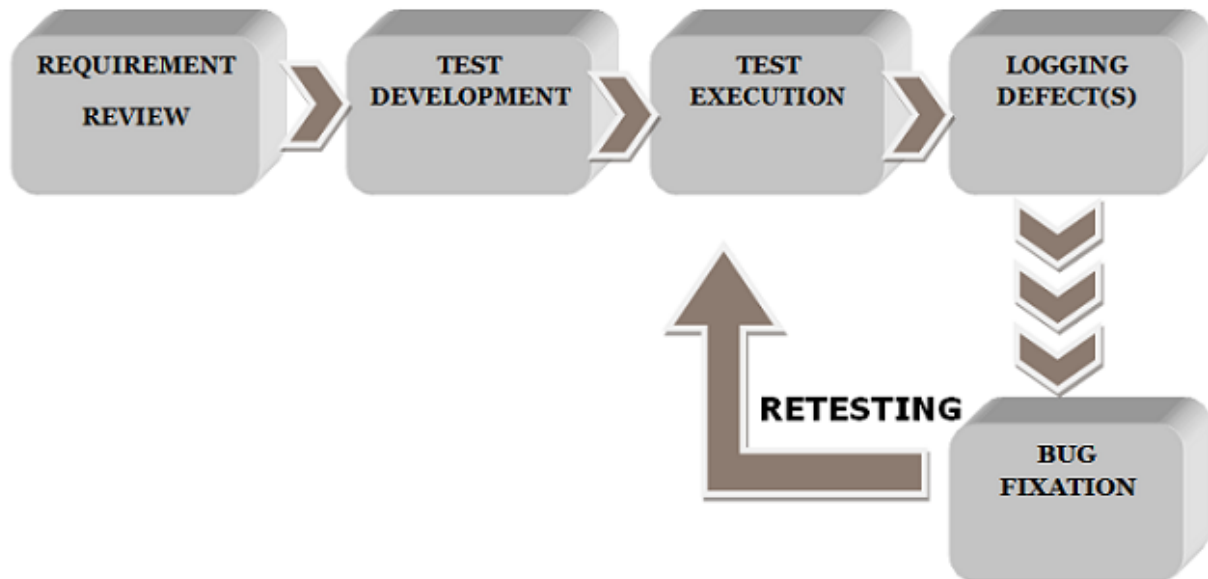## User Acceptance Testing (UAT)

User acceptance testing (UAT) is the testing process to evaluate the user satisfaction and acceptance of a digital product such as a website, software, or mobile application. UAT is the last phase of testing carried out by testing services or **hire quality analyst testers** teams for evaluating digital products and solutions before they are made available in the market.

The Objective of User Acceptance Testing

The basic objective of UAT is to ensure user satisfaction or user acceptance after the software product or website or mobile app is released in the market. The testing is done to see how the software, website, or mobile app can deal with the user interactions and tasks in actual user contexts and scenarios. This is the final phase of testing after which the product is considered to be free of any defects.

The Various Types of UAT

ALPHA TESTING

Key Steps in Carrying out User Acceptance Testing

- **Planning UAT**
  You need to start with a meticulous plan for carrying out user acceptance testing. Create a testing checklist to cover all the aspects that need to be covered in the process. At this stage, you also need to set priority areas of the app that need more focus. Apart from that, you need to fix responsibilities and roles for the internal people who will be responsible for carrying out testing.

- **Test Execution**
  As soon as the test cases are finalized the testing team will complete all pending tasks and fulfill other testing requirements to proceed further. Mostly testing is carried out in a conference setting with the presence of designated users, project managers, quality assurance specialists, and developers. The entire team works together to proceed with the test tasks slowly covering the entire app. The team manager documents and records the findings and feedback of the end-users.

- **Incorporating Testing Feedback**

Once testing is done and the feedback gathering is completed the developer team along with the quality assurance team evaluate the feedback and prioritize them on the basis of urgency and severity. They also list feedback that needs more clarification. Lastly, they drop certain feedback that no longer needs to be acted upon. In this respect, it is advisable to maintain the entire cycle of testing, feedback, and build team response concise and precise.

Design Methodologies

ArduinoDroid

ArduinoDroid is a free app that will let you edit, compile and upload sketches to your Arduino board directly from an Android phone or tablet.They have following features

• They works offline
 • They compile sketches (no root required) and upload sketches

 Currently only Arduino Uno r3 and the FTDI-based boards (Duemilanove, Diecimila) are supported but support for the Mega, Due and Nano is planned. Other features to be implemented include advanced configurable syntax highlighting, smart code suggestions (autocomplete) and 3rd-party apps integration (manuals, compile sketch requests).

Blynk Server

 Blynk was designed for the Internet of Things. It can control hardware remotely, it can display sensor data, it can store data, vizualize it and do many other cool things. The server responsible for all the communications between the smartphone and hardware

SMOKE SENSOR

ULTRASONIC

MEMS sensorIR

RPM counter

ARM CORE 1

A D C

C O U N T E

S P I

CAN Controller

MCP2510

CAN transceiver

MCP2551

CAN transceiver

MCP2551

CAN Controller

MCP2510

ARM CORE 2

S P I

G P I O

P W M

UART

WIFI(CLOUD)

Digital Display Unit

RF Rx

MOTOR control