**CS673S16 Software Engineering**

**Team 3 - ProTeam**

**Test Report Document**



**Revision history**

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| --- | --- | --- | --- |
| **Version** | **Author** | **Date** | **Change** |
| **1.0** | **Danny Chiu** | **4/23/2016** | **Initial set-up** |
| **2.0** | **Brian Kabuye** | **4/24/2016** |  |
| **3.0** | **Josh Wildey** | **4/26/2016** | **Added Server Unit Tests** |

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| --- | --- | --- | --- |
| Team Member | Role(s) | Signature | Date |
| Danny Chiu | -Team Leader  -QA Leader  -Requirement Leader | *Danny Chiu* | 2/9/2016 |
| Brian Kabuye | -Implementation leader  -App Developer | *Brian Kabuye* | 04/24/2016 |
| ChihYung Wu | -Design Leader  -App Developer |  |  |
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| Josh Wildey | -Environment and Integration Leader  -Server Developer | *Josh Wildey* | 4/24/2016 |

Table of Contents

[Introduction](#h.sjrqwwih7hkd)

[Purpose](#h.wl3da4vawnfd)

[Overview](#h.m5nhkg6v4fnh)

[Scope](#h.87s0a8yl07gb)

[Test Overview](#h.9jxedm95bupm)

[Tests Reports](#h.tllylkiz99fo)

[Unit Tests](#h.oberncnpqmiv)

[System Tests](#h.o6it80q9bnp3)

[Acceptance Tests](#h.uf4otrxee36)

[Testing Metrics](#h.mtfbusfb0eq3)

[References](#h.15tmymhipvdv)

[Glossary](#h.8n34lvocupub)

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# Introduction

# Purpose

This document is intended to describe the scope, approach and resources of intended testing activities. It identifies test items, features to be tested, the approach of each component to be tested and the pass/fail criteria.

# Overview

The Project Management Tools website ([www.3blueprints.com](http://www.3blueprints.com)) was developed to give software development teams a means of managing and tracking progress of the software application development. The three main functionalities that it provides are requirements tracking, issue tracking and chat rooms. Requirements tracking provides a way to generate user stories that define the required functions of the software being developed. The issue tracker provides a way to keep track of found software bugs. The chat rooms provide an easy method of communication amongst development teams and a way to share ideas, comments and concerns.

The ProTeam Android application is a mobile application that adds an additional interface to the website that is intended to provide all the same capabilities as the website. This mobile application requires communication with the web server through a RESTful API to give it access to all the same information that the website provides through the browser. This document is therefore broken up into two major sections each describing the Android app itself changes made to the server codebase.

# Scope

The initial design effort for the ProTeam Android App focused on the Requirement Tracker aspect of the website and therefore this document will be focused there however the dashboard of the App GUI will contain buttons for the other two functions for future development.

The App uses the RESTful API of [www.3Blueprints.com](http://www.3blueprints.com) and so the focus of the web server development will be focused on that aspect.

The ProTeam App and server both have their own set of unit tests to ensure functionality to be able to communicate with each. Additionally there are system level tests that test communication between the two development efforts. Acceptance criteria listed on Pivotal Tracker defined pass/fail criteria and are imported into this document.

# Test Overview

Test summary comprises of results from a few unit tests designed to focus testing on User Login, registering and token methods. These methods are the main entity on the Front End.

System testing was done manually due to dynamic approach taken in applying some of concepts in communication with server, authentication and token retrieval to access data such as user stories and projects, to display and interact on the app. Time being a constraint we were not able to fully develop automation mobile testing to cover entire functionality.

Basing on expected requirements, we were able to cover and meet these goals on the android app using black box testing.

# Tests Reports

In this section, you will give a detailed description of each test case performed and the result. You shall list what are existing tests developed in the previous semester and what are new tests developed currently.

# Unit Tests

* Test Users : This unit test covers shared preference methods that store user information such as tokens, personal data for easier access and better app performance

**Server Unit Tests**

The following tests were performed manually during server development. Section 3.6 of the Software Design Document specifies syntax of the commands used during testing. All test priorities are high because the ProTeam App depends on server functionality.

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Get token** |
| Test Items | Server API - get token |
| Test Priority | high |
| Dependencies | Server is online, User account active |
| Preconditions | User account previously registered |
| Input data | -correct username/password |
| Test Steps | cURL request with correct username/pw |
| Post Conditions | User authentication, token granted |
| Expected Output | HTTP response code 200, String Token granted |
| Actual Output | Token is generated and granted |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD: API Reference for cURL command line syntax |

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **API Signup method** |
| Test Items | Server API - signup |
| Test Priority | high |
| Dependencies | Server is online |
| Preconditions | none |
| Input data | Username, password, first name, last name, email |
| Test Steps | cURL request with all input data as JSON string |
| Post Conditions | User successfully signed up |
| Expected Output | HTTP response code 200, JSON string with basic user info including newly generated ID |
| Actual Output | JSON string with basic user info |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD for cURL command line syntax |

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Get User Details** |
| Test Items | /api/users/$/ |
| Test Priority | high |
| Dependencies | Server is online |
| Preconditions | User has Valid JWT |
| Input data | Authentication token passed in HTTP header |
| Test Steps | cURL request with input data in HTTP header |
| Post Conditions | User authenticated and granted access to requested info |
| Expected Output | HTTP response code 200, JSON string with basic user info |
| Actual Output | JSON string with basic user info |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD for cURL command line syntax |

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Get Project List** |
| Test Items | /api/<user>/projects/ |
| Test Priority | high |
| Dependencies | Server is online |
| Preconditions | User has Valid JWT |
| Input data | Authentication token passed in HTTP header |
| Test Steps | cURL request with input data in HTTP header |
| Post Conditions | User authenticated and granted access to requested info |
| Expected Output | HTTP response code 200, JSON string with Project list |
| Actual Output | JSON string with projects list |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD for cURL command line syntax |

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Get Project Details** |
| Test Items | /api/<user>/projects/$/ |
| Test Priority | high |
| Dependencies | Server is online |
| Preconditions | User has Valid JWT |
| Input data | Authentication token passed in HTTP header |
| Test Steps | cURL request with input data in HTTP header |
| Post Conditions | User authenticated and granted access to requested info |
| Expected Output | HTTP response code 200, JSON string with Project details |
| Actual Output | JSON string with projects details |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD for cURL command line syntax |

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Get User Stories** |
| Test Items | /api/<user>/projects/<proj\_id>/userstories/ |
| Test Priority | high |
| Dependencies | Server is online |
| Preconditions | User has Valid JWT |
| Input data | Authentication token passed in HTTP header |
| Test Steps | cURL request with input data in HTTP header |
| Post Conditions | User authenticated and granted access to requested info |
| Expected Output | HTTP response code 200, JSON string with user stories for that project |
| Actual Output | JSON array with user stories for that project |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | See SDD for cURL command line syntax |

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# System Tests

* Register test cases : Functional Tests cases cover ability for user to be able to register from application methods and classes that transmit information to server inform of json
* Login Test cases : Functional Test cases covering user ability to log in upon create a new account
* Server Test Cases: Functional Test cases covering ability for user to be able to dynamically communicate to server actions that generate requests with expected responses.

# Acceptance Tests

|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Test Pass Login (LogIn Front End)** |
| Test Items | Username / password input boxes |
| Test Priority | high |
| Dependencies | User account active |
| Preconditions | User account previously registered |
| Input data | -correct username/password |
| Test Steps | -input username / password |
| Post Conditions | User authentication, token granted |
| Expected Output | String Token granted |
| Actual Output | Token is generated and granted |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes |  |

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|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Test Fail login(Login Front End)** |
| Test Items | Username / password input boxes |
| Test Priority | High |
| Dependencies | User account active |
| Preconditions | User account previously registered |
| Input data | -wrong username/password |
| Test Steps | -input username / password |
| Post Conditions | Retry signing in with right credentials |
| Expected Output | No token is granted |
| Actual Output | No token granted |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | None |

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|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Test Pass Register(Login Front End)** |
| Test Items | Firstname, lastname, password, confirmation password, email |
| Test Priority | High |
| Dependencies | User account should not be existing and application still able to connect to server |
| Preconditions | User account should not be existing |
| Input data | -input Firstname, lastname, password, confirmation password, email |
| Test Steps | -input Firstname, lastname, password, confirmation password, email  Check stop created to validate all user information added |
| Post Conditions |  |
| Expected Output | User should be able to login with newly created account |
| Actual Output | User is able to log in |
| Pass or Fail | Pass |
| Bug ID | None |
| Additional Notes | None |

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|  |  |
| --- | --- |
| **Test Case Name (ID)** | **Test Fail login(Login Front End)** |
| Test Items | Firstname, lastname, password, confirmation password, email |
| Test Priority | High |
| Dependencies | User account should not be existing and application still able to connect to server |
| Preconditions | User account previously registered |
| Input data | -wrong username/password |
| Test Steps | -input username / password |
| Post Conditions | Retry signing in with right credentials |
| Expected Output | User should not be able to login with newly created account |
| Actual Output | User is able to login with newly created account |
| Pass or Fail | Fail |
| Bug ID | 2 |
| Additional Notes | This needs to be fixed on Front end, |

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# Testing Metrics

|  |  |  |  |
| --- | --- | --- | --- |
| JUnit testing metrics | Wed | 27 Apr 2016 01:13:31 EDT |  |
| Class | JTA | JTM |  |
| com.example.bryan.teamproject.LoginFailTests | 0 | 1 |  |
| com.example.bryan.teamproject.LoginPassTests | 0 | 1 |  |
| com.example.bryan.teamproject.MainActivityTest | 0 | 1 |  |
| com.example.bryan.teamproject.RegisterFailTests | 0 | 1 |  |
| com.example.bryan.teamproject.RegisterPassTests | 0 | 1 |  |
| com.example.bryan.teamproject.TokenRetrievalFailTests | 1 | 1 |  |
| com.example.bryan.teamproject.TokenRetrievalPassTests | 1 | 1 |  |
| Package | JTA | JTC | JTM |
| com.example.bryan.teamproject | 2 | 7 | 7 |
| Module | JTA | JTC | JTM |
| app | 2 | 7 | 7 |
| Project | JTA | JTC | JTM |
| project | 2 | 7 | 7 |

# References

**CS673S15 Software Engineering Software Design Document**. Spring 2015 Team 1 Student Project. Almanzor, Max.

<http://developer.android.com/training/testing/ui-testing/espresso-testing.html>

# Glossary

HTTP: Hyper Text Transfer Protocol

cURL: Tool to transfer data from or to a server

API: Application Programming Interface

JSON: JavaScript Object Notation

SDD: Software Design Document

JWT: Java Web Token