### **IP3 Test Plan and Cases**

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### 1 Introduction

I've had Short URL service designed in the previous IP assignment, the test plan and cases will cover the scope, approach, resource s and schedule of all testing activities of the the Short URL service project.

The plan identify the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing, the resources and schedule required to complete testing, and the risks associated with the plan.

# 1.1 Scope

## **1.1.1 In Scope**

### All feature of Short URL service are need to be tested

| Module Name       | Applicable Roles | Description   |
|-------------------|------------------|---|
| URL Generate      | Customer         | Customer: A customer can generate short URL by input long URL                       |
| URL configuration | Customer         | Customer: A customer can set expiration date for a short URL or define a custom URL |
| URL delete        |                  | URL will be delete after a default time period if it is not set by customer         |

# 1.1.2 Out of Scope

Following features are not tested because they are not included in the software requirements.

- Website Security and Performance
- User Interfaces

Database logical

# 1.2 Quality Object

The test objective are to verify the Functionality of website Short URL service, the project should focus on testing the URL operation such as create Short URL, Short URL redirect..etc. to guarantee all these operation can work normally.

# 2 Test Methodology

#### 2.1 Test Levels

In the project Short URL, there're 3 types of testing should be conducted.

- Integration Testing
- System Testing
- API Testing

# 2.3 Bug Triage

# 2.4 Suspension Criteria and Resumption Requirements

If the team member reports that there are 50% of test cases failed, suspend testing until the development team fixes all the failed cases.

# 2.4 Regression Testing

- -Bug Regression
- -Old fix method
- -Conversion/Port method
- -Configuration method

- -General Functional method
- -Build Verification
- -Localization method

### 2.5 Test Case: Generate Short URL

# **Description**

User can generate short URL by input an URL.

### Pre-conditions for this test case

- User has active internet connection
- User has the URL plan to make it shorter

### User create new short URL

| Test Case |                                    |  |   |                  |                       |                              |  |  |
|-----------|------------------------------------|--|---|------------------|-----------------------|------------------------------|--|--|
| Steps     | Step<br>Description                | Data/Value   | Expected<br>Result  | Actual<br>Result | Successful/<br>Failed | Log<br>Number(<br>If failed) |  |  |
| 1         | User paste<br>long URL             | https:// courses.city u.edu/ultra/ courses/1539471/ cl/outline | User input need<br>to be actual<br>working URL            |                  | Successful            |                              |  |  |
| 2         | User press<br>"Generate"<br>button |  | https:// tinyurl.com/ 9z6nfucc (ramdom string after.com/) |                  | Successful            |                              |  |  |
|           | 1                                  | !  | Test Case Status  | Successful       |                       |                              |  |  |

**User confirm short URL** 

|       | Test Case   |                                      |                                       |                        |                       |                              |  |  |  |
|-------|---|--------------------------------------|---------------------------------------|------------------------|-----------------------|------------------------------|--|--|--|
| Steps | Step<br>Description                               | Data/Value                           | Expected<br>Result                    | Actual<br>Result       | Successful/<br>Failed | Log<br>Number(<br>If failed) |  |  |  |
| 1     | User paste<br>and open<br>short URL in<br>browser | https://<br>tinyurl.com/<br>9z6nfucc | User direct the url before shortening | Unable to find the URL | Failed                | 1                            |  |  |  |
|       |   | Test Case Status                     | Failed                                |                        |                       |                              |  |  |  |