

# **Test Plan Document**

**for**

## **Work Management System (WMS)**

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**29 March 2024**

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## **TEST PLAN IDENTIFIER WMS-Test-1.01**

### **Introduction**

The objective of this test plan is to test the functionality of the Work Management System. This plan will address only those items and elements that are related to the Work Management process either directly or indirectly. The primary focus of this plan is to ensure that the system application should run smoothly and provide appropriate information to the User without any loss of information and covering most of the data inconsistencies

### **References**

- a. SRS submitted as a part of document
- b. Project Description
- c. <https://jmpovedar.files.wordpress.com/2014/03/ieee-829.pdf>

### **Features to be tested**

#### **1. Sign-Up Process**

- A. One option to Sign-Up
- B. Redirection to the Login page on successful Sign-Up
- C. Proper message if the Sign-Up is not successful

#### **2. Login Process**

- A. Entering of information in the fields
- B. Redirection to the WMS Home-Page after successful Login
- C. Proper message if the Login is unsuccessful

#### **3. Manager**

- A. Should be able to see Work Details
  - a. Add/Modify/Search Work Details
  - b. Mark the Work as Completed
  - c. See allocated Workers
- B. Should be able to see Worker Details
  - a. Add/Modify/Delete/Search Worker Details
  - b. Free Worker
- C. Should be able to assign Workers to Work (either Manual or Automatic)
  - a. Assign Workers to Work either Manual or Automatic

### **Features not to be tested**

- A. The Database employed via MongoDB would NOT be tested
- B. The Database server should not be tested for compatibility with unsupported host (Here we are strictly adhering to "localhost:3000")

### **Pass/Fail Criteria**

In the test run, a test case will be considered as Pass if after running the cases, the software functions as designed. Any test case which does otherwise is considered as Fail. We will be

providing the test cases, which are to be run in the software for testing, along with the result of the test run.

## **TEST PLANS**

### **Test Plan for Login Process**

1. Redirection to the Right Pages
  - a. Buttons : There will be a single button for Logging In into the system
  - b. Redirection : After the redirection the pages conferred upon should open.  
Primarily, directed to the homepage upon successful login.
2. Working Input Fields
  - a. Responsiveness of Fields : The selected input field should darken its borders upon activity
  - b. Required Input Fields : The required input fields if not filled will show "Please fill out this field" toggle upon submission
3. Error Handling while Logging In
  - a. Wrong Data : Error message will be shown if the User doesn't exist in the database or there is 'Username-Password' mismatch
  - b. Redirection : User is redirected to a page stating the error, the User can always press the back button on the browser to return to the page User was on

### **Test Plan for Signup Process**

1. Redirection to the right pages
  - a. Buttons : There will be a single button to register a new manager
  - b. Redirection : After the redirection the pages conferred upon should open
2. Working Input Fields
  - a. Responsiveness of Fields : The selected input field should darken its borders upon activity
  - b. Required Input Fields : The required input fields if not filled will show error upon "Please fill out this field" toggle upon submission
3. Error Handling while Signing
  - a. Repetitive Data : Error messages are issued if the Username already exists
  - b. Redirection : User is redirected to a page stating the error, the User can always press the back button on the browser to return to the page he/she was on
4. Uniqueness of Username
  - a. If the Username is not unique then the Sign-Up will not be successful. As mentioned above redirection will take place

## **Test Plan For Home Page**

1. Available Features
  - a. Buttons for different Functions : There should be three buttons that will redirect the User to the Work Details Page, Worker Details Page, Work Assignment Page. At the top of it there is a redirection to Logout from the system.
2. Activities
  - a. Redirection : The redirection from the given buttons must be correct without any server or debug error

## **Test Plan For Work Class**

1. Work Details : The page should clearly display all the Works in the database. Each Work should come with 'Edit' and 'View Workers' option
2. Search Option
  - a. Input Field : The input field should allow the User to enter string, upon clicking on the field
  - b. Search Button : On clicking should display the list of Works filtered by the substring match of the string entered in the input field
3. Add Work
  - a. Button Action : Should redirect to the correct form page.
  - b. Form Page :
    - i. Input fields for all the Work attributes to be filled by the User
    - ii. Upon pressing 'Add Work' button, should redirect to 'List Of Works' page, upon successful addition of Work
4. Edit Option
  - a. Action : Redirect you to the edit page, where only selected attributes can be changed.
  - b. Buttons
    - i. Update Work : Upon successful edit on the Work, redirects to the 'List of Works' page
    - ii. Mark as Complete and Delete Work : Upon successful deletion of Work, redirects to the 'Work Details' page (implicit : all the associated Workers are freed)
5. View Workers Option
  - a. Action : Redirect you to 'allocated' Workers page, where details too are displayed

## **Test Plan For Worker Class**

1. Worker Details : The page should clearly display all the Workers in the database. Each Worker should come with 'Edit', 'Delete', 'Free' (if the Worker is active) option
2. Search Option
  - a. Input Fields : Two input fields namely for 'Search by Worker ID' and 'Search by Worker Name' , should allow the User to enter a number and string respectively, upon clicking on the field

- b. Search Buttons : Both the search buttons upon clicking should display the list of Workers filtered by the opted choice (substring search occurs in the case of 'Search by Worker Name' option)
- 3. Add Worker
  - a. Button Action : Should redirect to the correct form page
  - b. Form Page :
    - i. Input fields for all the Work attributes to be filled by the User
    - ii. Upon pressing 'Add Worker' button, should redirect to 'List of Workers' page, upon successful addition of Worker
- 4. Edit Option
  - a. Action : Redirect you to edit page, where only selected attributes can be changed
  - b. Buttons
    - i. Update Worker : Upon successful edit on the Work, redirects to the 'List of Workers' page
- 5. Delete Option
  - a. Action : Delete the Worker from the database (implicit : will be deleted from the associated Work)
- 6. Free Option (Available conditionally)
  - a. Action : Set the 'Active' attribute of the Worker to false (if it is 'True' already) (implicit : will be removed from the associated Work)

## **Test Plan for Work Assignment**

- 1. Work Type Selection
  - a. Drop Down Selection : Select the Work Type
  - b. Action : Upon entering, only those Works of the selected type and whose 'Required Number of Workers' attribute is greater than 'Workers Assigned' attribute
- 2. Activities :
  - a. Automated Worker Assignment:
    - i. Button : 'Assign Worker' is given after every listed Work to serve the purpose
    - ii. Action : Automatically assigns Workers of the "Role" attribute same as the selected "Work Type" attribute (Makes necessary changes to both Work and Worker attributes in the backend)
  - b. Manual Worker Assignment
    - i. Button : 'Allocate Manually' is given after every listed Work to serve the purpose
    - ii. Action : Redirects to the page where Workers of 'Role' attribute same as the selected 'Work Type' are displayed with 'Allocate' button to assign them the respective selected Work

## **Interface Testing**

### **Check Basic Elements**

1. Buttons (of all kinds on all pages)
2. Text-Boxes (Input Fields)
3. "Home" Redirection on all Pages

## **APPROACH**

### **1. Methodology**

We aim to deliver a robust and User-centric Work Management System, by combining agile methodologies with structured development practices, that meets the needs of our Users effectively. We approach the project with continual planning, learning, improvement, team collaboration, evolutionary development, and timely completion. Encouraging flexible responses to change. We emphasize on individual and team interactions over processes and tools.

### **2. Test Types**

Software Testing will be performed by developers instead of a third party due to the small nature of the project. Exhaustive testing is not possible. As we need the optimal amount of testing based in the risk assessment of the application

- i. Unit Testing : We will focus on smaller units of the software design. In this, we will test an individual unit or group of interrelated units. It is often done by the programmer by using sample input and observing its corresponding outputs.
- ii. System Testing : Software will be tested such that it Works fine on different operating systems primarily Linux, Windows and MacOS. We will follow the black box testing technique. In this, we will be focussing on the required input and output without focusing on the internal Working.
- iii. Regression Testing : Adding new files leads to changes in the program. We make sure that the whole component Works properly even after adding new components to the complete program.

### **3. Meetings**

Test meeting will be done at the end of the day to check for errors within the code written during that day. Additional meetings can be done as required for emergency situations.

## **Environmental Needs**

1. There are no special hardware requirements for running the software.
2. Test data will be provided to the software by creating a demo data and testing it over all the functions exhaustively.
3. There are no specific requirements apart from an active internet connection while testing the software.

## **Software Risk Issues**

All the softwares used should be installed on the device beforehand. Refer to the official software documentation if any issue persists.