**Task 2: Estimation for Task 1**

**Work Breakdown Structure (WBS) for Test Activities (Based on Task 1)**

**1. Test Planning and Analysis**

1.1. Review Requirements

1.2. Identify Test Scenarios

1.3. Develop Test Strategy

1.4. Create Test Plan

**2. Test Design**

2.1. Design Test Cases for From date field

2.2. Design Test Cases for To date field,

2.3. Design Test Cases for Floor field.

2.4. Design Test Cases for Smoking Allowed [] Yes checkbox.

2.5. Design Test Cases for Search.

2.6. Design Test Cases for Search Result table.

2.7. Design Test Cases for Sort functionality.

2.8. Design Test Cases for pagination.

2.9. Design Test Cases Performance.

2.10. Design Test Cases for User Interface.

**3. Test Data Preparation**

3.1. Prepare Test Data for Date

3.2. Prepare Test Data for Floor

3.3. Prepare Test Data for Search

3.4. Prepare Test Data for Search result table

3.5. Prepare Test Data for Sort

3.6. Prepare Test Data for pagination.

3.7. Prepare Test Data for performance

3.8. Prepare Test Data for user interface

**4. Test Environment Setup**

4.1. Set Up Test Environments

4.2. Configure Test Data

4.3. Prepare Test Tools and Resources

**5. Test Execution**

5.1. Execute Test Cases for From date.

5.2. Execute Test Cases for To date.

5.3. Execute Test Cases for Floor

5.4. Execute Test Cases for Smoking Allowed [] yes checkbox

5.5. Execute Test Cases for Equipment section.

5.6. Execute Test Cases for Search.

5.7. Execute Test Cases for Search result table.

5.8. Execute Test Cases for sort.

5.9. Execute Test Cases for Pagination.

5.10. Execute Test Cases for Performance.

5.11. Execute Test Cases for User Interface.

**6. Defect Management**

6.1. Log and Prioritize Defects

6.2. Track Defect Resolution

6.3. Regression Testing for Fixed Defects

**7. Test Reporting and Closure**

7.1. Document Test Results

7.2. Prepare Test Summary Report

7.3. Conduct Test Closure Meeting

**Estimated Time for Each Activity**

1. **Test Planning and Analysis**: 24 hours
2. **Test Design**: 32 hours
3. **Test Data Preparation**: 20 hours
4. **Test Environment Setup**: 16 hours
5. **Test Execution**: 80 hours
6. **Defect Management**: 24 hours
7. **Test Reporting and Closure**: 20 hours

**Assumptions**

* Test resources are available as per the estimated schedule.
* Test environments can be set up and configured without significant delays.
* User stories and requirements remain stable during testing.
* Defects found during testing are addressed promptly by the development team.

**Expected Quality Level**

* Thorough testing ensures that all requirements are met and functionalities work as expected.
* Defects are identified and resolved before the release, ensuring a high-quality product.
* Test summary report provides clear insights into the testing process and results.

**High-Level Description of Estimated Test Activities**

1. **Planning and Analysis**: Understand requirements and plan testing approach.
2. **Design**: Create comprehensive test cases covering all functionalities.
3. **Data Preparation**: Prepare necessary test data to execute test cases.
4. **Environment Setup**: Set up test environments to mimic production conditions.
5. **Execution**: Execute test cases and verify system functionality.
6. **Defect Management**: Log, track, and resolve defects to ensure product quality.
7. **Reporting and Closure**: Document test results and close testing activities with a summary report.

**Customer Deliverables**

* Detailed test plan outlining the testing approach.
* Comprehensive test cases covering all requirements.
* Test data sets for executing test cases.
* Configured test environments for testing.
* Test execution report with detailed results.
* Summary report providing insights into testing process and quality assessment.

**Task 2: Estimation for New Features with Regression Effort**

**Work Breakdown Structure (WBS) for Test Activities**

**1. User Registration Testing**

1.1. Verify user registration functionality.

1.2. Test different scenarios for user registration (valid, invalid, duplicate email, etc.).

1.3. Test email verification process.

1.4. Verify user roles after registration (user vs. office manager).

1.5. Regression testing of existing functionality affected by user registration.

**2. Booking of Office Place Testing**

2.1. Test booking functionality for available working places.

2.2. Verify booking cancellation functionality.

2.3. Test booking for future dates and time slots.

2.4. Verify booking history for users.

2.5. Regression testing of existing functionality affected by booking.

**3. User Roles Testing**

3.1. Test user role assignment for registered users.

3.2. Verify access permissions for different user roles.

3.3. Test user role management functionalities (assigning, updating, removing roles).

3.4. Regression testing of existing functionality affected by user roles.

**4. Native Mobile Application Testing**

4.1. Test mobile application compatibility with different devices (iOS, Android).

4.2. Verify user registration and login functionalities.

4.3. Test booking and cancellation functionalities.

4.4. Test synchronization between mobile and web platforms.

4.5. Regression testing of existing functionality affected by mobile application integration.

**Estimated Time for Each Activity**

1. **User Registration Testing**: 30 hours
2. **Booking of Office Place Testing**: 38 hours
3. **User Roles Testing**: 26 hours
4. **Native Mobile Application Testing**: 44 hours
5. **Regression Testing**: 30 hours

**Assumptions**

* Test environments for mobile testing are available and configured.
* Test data for user registration and booking scenarios are prepared.
* User stories and requirements remain stable during testing.
* Defects found during testing are addressed promptly by the development team.

**Expected Quality Level**

* Thorough testing ensures that all new features are working as expected.
* Regression testing ensures that existing functionalities are not impacted by new features.
* Usability and performance of the native mobile application meet customer expectations.
* Defects are identified and resolved before the release, ensuring a high-quality product.

**Customer Deliverables**

* Detailed test plan outlining the testing approach for each new feature.
* Comprehensive test cases covering all user stories and requirements.
* Test data sets for executing test cases.
* Configured test environments for testing.
* Test execution report with detailed results for each feature, including regression testing outcomes.