Test Plan for Task Management System

**1. Test Objectives:**

* 1. **Functionality Verification**: To ensure that all features of the system function as expected according to the design specifications and user requirements.
     + User login (REQ-001)
     + User Registration (REQ-002)
     + Project Dashboard (REQ-003)
     + Project Page (REQ-004)
     + Task Board (REQ-005)
     + Task Element (REQ-006)
     + Search bar for projects(REQ-007)
     + Search bar for tasks(REQ-008)
  2. **User Interface Testing**: To ensure that the user interface is intuitive, user-friendly, and consistent across all modules of the system. This includes testing the layout, design, and navigation of the application.
  3. **User Functional Testing**: To ensure that user is viewing the list of projects, with project name, project description, project status(in progress or finished), number of tasks, number of completed tasks and not completed tasks. And performe actions: create a new project, edit a project name and description, delete project.
  4. **Task Functional Testing**: Ensure that users can manage tasks within projects, including creating, updating, and deleting tasks, and view task details accurately.
  5. **Search bar Funcional Testing:** Ensure that users can find projects by project name, or project status. Also user can search tasks by task name, task priority, status state(Todo, inprogress, done).

1. **Test Scope:**
   1. **User Account Management**: Test user registration, login, and logout functionalities.
   2. **Project Management**: Test project dashboard functionalities such as creating, updating, and deleting projects, and viewing project details.
   3. **Task Management**: Test task board and task element functionalities such as creating, updating, and deleting tasks, and viewing task details.

**3. Test Strategy**:

| **Test Level** | **Test Types** | **Testing Technique** | **Tools used** | **Description** |
| --- | --- | --- | --- | --- |
| System Testing | Functional Testing | Experience- based | Manual Testing, Test Cases | Testers will interact with the system as end users would, trying out various functionalities and observing the system's behavior. |
| System Testing | Regression Testing | Automated Testing | Selenium | Involves re-running our test cases from the functional testing phase to ensure that previously developed and tested software still performs after a change. |
| Integration Testing | Functional Testing | Black Box Testing | Postman | Testing the interaction between different components of the software. |
| Acceptance Testing | User Acceptance Testing (UAT) | Black Box Testing | Manual Testing, Test Cases | The final phase of testing, where actual software users test the software to make sure it can handle. |
| System Testing | End-to-End Testing | Black Box Testing | Selenium | Testing the entire software from start to end. |

**4. Test Schedule**

| **Activity** | **Start Date** | **End Date** |
| --- | --- | --- |
| Test Case Development and Test Environment Setup | 2024-04-22 | 2024-04-26 |
| Test Execution and Bug Fixing | 2024-04-29 | 2024-05-06 |

**5. Resource Planning**

* Tester 1: Ričardas
* Tester 2: Robertas
* Tester 3:

**6. Risk Management**

| **Risk** | **Potential Impact** | **Likelihood** | **Mitigation Strategy** |
| --- | --- | --- | --- |
| Delays in development | Could push back the start of the testing phase, leaving less time for testing. | Medium | Early involvement in the development process to help identify and address potential delays. |
| Unavailability of test environments | Could prevent testing from taking place as scheduled. | Low | Having a backup test environment ready to use in case the primary environment is unavailable. |
| High defect leakage | Lots of bugs fixing after release. | High | Thorough test case review and execution to catch as many defects as possible during the testing phase. |

**7. Entry Criteria**

* The development team has delivered a stable build for testing.
* The test environment is ready and test data has been prepared.

**8. Exit Criteria**

* All planned test cases have been executed.
* All critical and high priority bugs have been fixed and retested.

9. **Deliverables**:

* **Test Case Report Document:** Contains all executed test cases.
* **Test Scripts:** Provided if automated testing used.
* **Bug Reports:** Detailed report of all bugs found during testing.
* **Test Summary Report:** Provided in Jira, linked with project.