**California Institute of Regenerative Medicine – Grant Management System.**

**Start Date:** May-17-2023

**End Date:** Dec-15-2023

**Project Lifecycle:**

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| --- | --- | --- |
| **SL. No** | **Phase** | **Date** |
| 1 | Discovery Phase | May-19-2023 to Jun-30-2023 |
| 2 | Implementation Phase | July-03-2023 to Sep-22-2023 |
| 3 | Steady state phase | Sep-25-2023 to Dec-15-2023 |

**Objective of Project:**

Objective of the project is to study the developing approach of an application, identify the issues the development team is facing, and analyze the testing artifacts they are currently using.

**Scope of the Project:**

The scope of the project involves implementing full test artifacts, providing a better solution to improve the end-user experience, and creating an automation test suite for the identified regression test cases.

**Implement Full Test Artifacts**:

* **Test Plans**: Develop comprehensive test plans that outline the scope, objectives, and testing approach for different phases of the project.
* **Test Cases**: Create detailed test cases that cover various scenarios, including positive and negative test cases, boundary tests, and performance tests.
* **Test Data**: Generate or prepare test data required for executing test cases effectively.
* **Test Environment Setup**: Ensure that the necessary test environments (e.g., development, staging, production) are properly configured and available for testing.
* **Test Execution**: Execute test cases as per the test plans, including manual and automated testing, to validate the functionality and quality of the application.
* **Defect Management**: Implement a process for reporting, tracking, prioritizing, and resolving defects and issues discovered during testing.

**Provide a Better Solution for Improved End-User Experience**:

* **User Experience Analysis**: Conduct a thorough analysis of the application's user interface (UI) and user experience (UX) to identify areas for improvement.
* **UI/UX Recommendations**: Provide recommendations for enhancing the UI/UX design and user interactions based on best practices and user feedback.
* **Performance Optimization**: Identify and address performance bottlenecks and latency issues that may affect the end-user experience.
* **Accessibility**: Ensure that the application complies with accessibility standards (e.g., WCAG) to make it usable by individuals with disabilities.

**Create an Automation Test Suite for Identified Regression Test Cases**:

* **Regression Test Selection**: Identify and prioritize the test cases that are suitable for automation as part of the regression test suite.
* **Automation Framework**: Choose an appropriate test automation framework (e.g., Selenium, Appium, TestNG) that aligns with the application's technology stack.
* **Test Script Development**: Develop automation test scripts for the identified regression test cases. Ensure that the scripts are maintainable and follow best practices.
* **Integration with CI/CD**: Integrate the automation test suite with the Continuous Integration/Continuous Deployment (CI/CD) pipeline for automated testing in the development workflow.
* **Test Reporting**: Implement automated test reporting mechanisms to generate detailed reports and logs after each test execution.
* **Maintenance Plan**: Develop a plan for maintaining and updating the automation test suite as the application evolves.
* **Training**: Provide training to the testing team on how to use and maintain the automation test suite effectively.
* **Execution and Monitoring**: Regularly execute the automated regression tests and monitor the results for failures and issues.
* **Continuous Improvement**: Continuously enhance the automation suite by adding new test cases, improving existing ones, and incorporating feedback.

**Project Approach Type: Adaptive Approach - Incremental**

* Requirements are not clear-Dynamic Requirements.
* Activities performed once per increment.
* Frequent small deliveries.