TEST STRATEGY

Testing Levels:

1. Unit Testing: Test individual components and function of web app & AI model that analyze emotions by facial expressions and voice tone.
2. Integration Testing: Test the integration of components to make sure that they work together correctly. Test the AI model with the video recording functionality to ensure that the analysis is performed correctly on the recorded session.
3. System Testing: Test the overall system to verify its performance, functionality and usability.
4. Acceptance Testing: Test the web app with the requirements/expectations of the end users & conduct test with real therapists to validate the app’s analysis results.

Testing Types:

1. Functional Testing: Verify that AI model detects and analyzes emotions accurately, using gestures, facial expressions and voice tone. And verify all the functions and features of the web app works well.
2. Usability Testing: Evaluate the app's user experience for therapists, ensuring it’s easy to navigate.
3. Performance Testing: Test the app’s performance under different conditions. For example, response times & generating analysis results.
4. Security Testing: Test the app’s security measures to protect the user and client data. Like session records and card information.
5. Compatibility Testing: Ensure that the app works well across different devices, browsers and OSs.
6. Regression Testing: Re-test previously working features to ensure they still work after changes/updates.

Testing Techniques:

1. Black Box Testing: Validate the app's functionality from an external perspective without knowledge of its internal workings.
2. White Box Testing: Test the app to verify its correctness of internal algorithms and logic.
3. Exploratory Testing: Test the app by exploring scenarios and paths to discover any unexpected issues or usability concerns.

Test Coverage:

1. UI Coverage: Ensure that the user interface is thoroughly tested.
2. Analysis Coverage: Test the accuracy of emotion recognition.
3. Error Handling Coverage: Test the error handling and error messages.

Test Deliverables:

1. Test Plan: Document detailing the test strategy and schedule.
2. Test Cases: Instructions of tests and results.
3. Test Reports: Summery of the test results, including any issues if found.

TEST SCHEDULE

Test Phases:

1. Planning Phase: Defining the test objectives and timelines. Planning on which tests to do.
2. Preparation Phase: Setting up test environment.
3. Execution Phase: Performing of the tests & recording of the results.
4. Closure Phase: Analyzing the test results and generate test reports. Resolving of the defects.

Milestones:

1. Completion of Test Planning and Test Plan Approval.
2. Test Environment Setup and Readiness.
3. Completion of Test Case Preparation.
4. Test Execution and Defect Reporting.
5. Completion of Test Analysis and Test Reports.
6. Review and Resolution of Reported Defects.
7. Final Acceptance Testing and Sign-off.

Resource Allocation:

1. Video Recording Equipment: Ensure availability of suitable cameras and recording devices.
2. AI Analysis Resources: Allocate necessary computational resources and AI models for emotions, gestures, facial expressions, and voice tone analysis.
3. Time: Allocate sufficient time for planning, preparation, execution, and analysis