Quality Management Plan: Langualiser

Project: Langualiser
Description: Implementation of the Langualiser mobile app on iOS and Android
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1. QUALITY STANDARDS

Quality Definition:

The Langualiser mobile application must meet the highest standards of quality to ensure an exceptional user experience. The following quality attributes are expected:

- **Responsiveness:** The app should load quickly and respond instantly to user interactions. All functionalities should be available with minimal lag, regardless of the device being used.
- **Stability:** The app must be stable, with minimal crashes or bugs. Stability is critical across all supported platforms (iOS and Android) and devices, including older models.
- **User Experience (UX):** The app must offer an intuitive and enjoyable user experience. This includes clear navigation, accessibility, and an aesthetically pleasing design that aligns with modern UX/UI principles.
- **User Interface (UI):** The visual design of the app should be attractive, modern, and consistent across all screens. The UI should be simple and aligned with the target audience's preferences.

2. QUALITY CONTROL PROCESSES

Testing Strategy:

To ensure the Langualiser app meets the defined quality standards, the following quality control processes will be implemented:

1. **Unit Testing:**
    - **Objective:** To test individual components or features in isolation to ensure they work as intended.
    - **Responsible:** Development Team
    - **Frequency:** Continuous during the development phase
    - **Tools:** JUnit (for Android), XCTest (for iOS), and other relevant testing frameworks.
2. **Integration Testing:**
    - **Objective:** To ensure that different components or modules of the app work together seamlessly.
    - **Responsible:** Development and Testing Teams
    - **Frequency:** After the completion of each major module
    - **Tools:** Jenkins, Selenium
3. **Usability Testing:**
    - **Objective:** To evaluate the user experience by testing the app with real users from the target demographic.
    - **Responsible:** UX/UI Team
    - **Frequency:** During the beta testing phase
    - **Tools:** UserTesting.com, heat maps, surveys

4. **Performance Testing:**
    - **Objective:** To test the app's performance under various conditions, such as different network speeds, device types, and user loads.
    - **Responsible:** QA Team
    - **Frequency:** Prior to the official launch
    - **Tools:** Apache JMeter, LoadRunner
5. **Security Testing:**
    - **Objective:** To identify and fix any vulnerabilities that could compromise user data or app integrity.
    - **Responsible:** Security Team
    - **Frequency:** Before deployment to the production environment
    - **Tools:** OWASP ZAP, Burp Suite
6. **Beta Testing:**
    - **Objective:** To gather feedback from a limited group of end-users on the overall usability, stability, and performance of the app.
    - **Responsible:** QA Team, UX/UI Team
    - **Frequency:** 2 months before launch
    - **Tools:** TestFlight (for iOS), Google Play Beta Testing (for Android)
7. **Regression Testing:**
    - **Objective:** To ensure that new updates or bug fixes do not negatively impact existing functionality.
    - **Responsible:** QA Team
    - **Frequency:** After each update or bug fix
    - **Tools:** Automated test suites

8. **Acceptance Testing:**
    - **Objective:** To confirm that the final product meets the initial project requirements and quality standards.
    - **Responsible:** Project Manager, Sponsor, Key Stakeholders
    - **Frequency:** Before the official launch
    - **Tools:** Manual testing, requirement checklists