WDT PROJECT
QURAA

Dr : Nasser Tamim

Section time: Monday 1:00 - 3:00

TA Name: Dr: Farah

Team Members :

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Objective:

• Providing Quran recitations with interpretations & jurisprudential rulings.
• Teaching Tajweed and the meaning of Dhikr.
• Ensuring readability for color-blind users with optimized display options.
• Adding voice control for easier accessibility.

Features:

- **Interactive Digital Mushaf** – A seamless Quran-reading experience that mimics the printed Mushaf.
- **Interpretation & Meanings** – Displaying verse meanings and interpretations alongside the Quranic text for deeper understanding.
- **Advanced Search Functionality** – Quickly find specific Surahs or verses with high accuracy.
- **Recitation Control** – Select your preferred reciter with options to play, pause, repeat, and adjust recitation speed.
- **Smooth Navigation** – Easily move between pages and Juz sections using intuitive controls.
- **Enhanced Reading Modes** – Multiple display options, including night mode and verse highlighting, for an optimized reading experience.
- **Color-Blind Friendly Design** – Customized background and color settings to enhance text clarity for users with color blindness.

Stakeholders:

- ## Users:
  - Individuals looking for an interactive and accessible Quran-reading experience.
  - People seeking interpretations and meanings of Quranic verses.
  - Learners and students interested in improving their Tajweed and understanding of Dhikr.
- ### Religious Scholars & Educators:
  - Provide accurate interpretations and Tajweed lessons to enhance users' understanding.
  - Offer verified Islamic rulings and guidance.
- ### Developers & Designers:
  - Build an intuitive and accessible platform that ensures a smooth user experience.
  - Implement advanced features like color-blind-friendly backgrounds and voice control for accessibility.
- ### Islamic Organizations & Institutes:
  - Support the platform with verified religious content and scholarly input.
  - Promote Quranic learning and community engagement.
- ### Investors & Sponsors:
  - Fund the development and maintenance of the platform.
  - Support accessibility improvements and expansion of educational resources.
- ### Advertisers & Partners:
  - Provide relevant Islamic content, books, and services.
  - Promote Islamic initiatives and educational programs.

External-Interface Requirements

1) User Interface:

The platform is designed to be intuitive and user-friendly, ensuring easy navigation and accessibility for all users, including those with color blindness.

2) Hardware Interface:

The software is compatible with the following devices:

Desktop and Laptop:

1. **Windows OS**
   - o Found on: PCs and laptops running Windows.
2. **macOS (by Apple)**
   - o Found on: Apple computers like MacBook, iMac.
3. **Linux (Various Distributions)**
   - o Examples: Ubuntu, Fedora, Debian, Arch Linux, Mint.
   - o Found on: PCs.
4. **Chrome OS (by Google)**
   - o Found on: Chromebooks

Mobile:

1. **Android (by Google)**
   - o Found on: Smartphones, tablets.
2. **iOS/iPadOS (by Apple)**
   - o Found on: iPhones, iPads.
3. **HarmonyOS (by Huawei)**
   - o Found on: Huawei devices.

3) Software Interface:

For the platform to function optimally, the following software requirements must be met:

Software	Reason	Examples
Audio Streaming & Playback	The platform provides Quran recitations, requiring reliable audio playback.	o Built-in media player support on Android/iOS. o Web-based audio player for browsers.
Internet Connectivity	Ensures access to Quranic content, interpretations, and live audio recitations.	o Wi-Fi or cellular data is necessary for streaming and updates.
Text-to-Speech (TTS) Services	Supports voice control and accessibility for visually impaired users.	o Google Text-to-Speech (Android) o Apple VoiceOver (iOS)

• *Description:*

The **Quran Website** is an interactive platform designed to provide users with access to the Holy Quran, including recitations, translations, and tafsir (exegesis). The system offers a user-friendly experience, allowing easy navigation through chapters and verses while supporting multiple languages and reciters. The goal is to enhance the spiritual and educational experience of users by providing a comprehensive digital Quranic resource.

Inputs:

- Selected Surah and Ayah.
- Preferred reciter.
- Chosen translation language.
- Tafsir selection (if needed).

Behaviors:

- Displays the chosen Surah and Ayah along with the corresponding translation and tafsir.
- Streams the Quranic recitation in the selected voice.

Outputs:

Displays Quranic verses with translations and tafsir.

- Provides audio recitations from multiple Qaris.
- Allows users to bookmark favorite verses for later reference.

Examples on the Functionalities:

1) Client's Side:

- **Search & Navigation:** Allows users to quickly find Surahs and Ayahs using filters such as:
    - Surah name or number.
    - Juz' (part) number.
    - Specific keywords within verses.
    - Reciter name or translation language.
- **Audio Recitations:** Users can listen to different recitations from various Qaris with options for playback speed adjustment.
- **Bookmarking & Favorites:** Users can save specific verses for future reference or create a playlist of preferred recitations.
- **Tafsir & Translation:** Provides detailed explanations and multiple translations for a deeper understanding of the verses.
- **Dark Mode & Reading Settings:** Users can customize font size, background color, and display preferences for comfortable reading.

2) Admin Side (Website Management):

- **Uploading New Recitations & Translations:** Admins can add or update recitations and translations for better accessibility.
- **Managing User Bookmarks & Preferences:** Allows administrators to store user preferences and improve personalization.
- **Content Updates:**
    - Adding new Tafsir books or translations.
    - Updating the website layout for better navigation.
    - Improving search functionality and performance.
- **Usage Analytics & Feedback Collection:** Admins can track user engagement and gather feedback for continuous improvement.

Non-Functional Requirements

- **Performance Requirements:**
    1. The website should support up to **100,000 simultaneous users** without performance issues.
    2. Page load time should not exceed **2 seconds** under normal conditions.
    3. The website must update real-time data (e.g., new recitations, tafsir updates) within **30 seconds** of any changes.
- **Scalability Requirements:**
    1. The platform should be **easily scalable** to accommodate more users and additional Quranic resources.
    2. It must handle increasing traffic and content without affecting **performance or accessibility**.
- **Reliability and Availability:**
    1. The website should have **failover mechanisms** to ensure continued access during server issues.
    2. Ensure **data accuracy**, particularly for Quranic text, translations, and tafsir.
- **Security Requirements:**
    1. User data (such as saved bookmarks and preferences) must be **encrypted** both in transit (using HTTPS) and at rest.
    2. Implement **secure authentication methods**, such as multi-factor authentication (MFA), for admin access.
    3. Protect sensitive content from **unauthorized access or modifications**.
    4. Comply with **global data privacy regulations** to safeguard user information.
- **Usability and Accessibility Requirements:**
    1. The interface should be **user-friendly**, ensuring seamless navigation.
    2. The website must be **compatible** across multiple devices (smartphones, tablets, and desktops).
    3. Provide **multi-language support** for translations and user interface.
    4. Offer features such as **screen reader support, adjustable font sizes, and dark mode** for better accessibility.
- **Maintainability Requirements:**
    1. The codebase should be **modular and well-documented** to allow easy updates and bug fixes.
    2. Implement **automated testing** to ensure that updates do not introduce errors.
    3. Provide **system monitoring tools** to track performance and resolve issues efficiently.
- **Integration Requirements:**
    1. The website should support seamless integration with **third-party services**, such as Islamic calendar APIs, prayer time APIs, and sharing options for social media.