THOMPSON RIVERS UNIVERSITY

SENG 3210 - Applied Software Engineering

VoxChoice - Deliverable #1

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February 16, 2024

Brainstorming Session

Meeting 1

Time: February 15, 2024

Agenda: Brainstorming, Distribution of First Tasks

Team Member	Previous Task	Completion State	Next Task
Landon McKay	N/A	100%	Problem definition and objectives
Marcus Hoang	N/A	100%	Introduction and non-functional requirements
Junpeng Jiang	N/A	100%	Functions and constraints

Notes:

- Brainstorming:
    - Based on the project requirements:
        - The software will require some form of cloud-based database
        - Many pages will be required such as a login and sign up page, voting page, administration page, a page to add topics, and a page for the administrator dashboard.
    - Since the project is smaller and documentation exists that predefines most of the requirements, Waterfall, a plan driven method of software development, will be used.
    - Possible database options are using SQL with mySQL or something with AWS
    - GitHub has a feature called “projects” which allows for project management that all team members can use. We will use this to help track progress throughout the project.
    - A few concerns about the project need to be addressed:
        - Need to determine what database integrates best with Android Studio
        - The team would like to borrow an Android phone to test software on actual hardware
- Distribution of First Tasks
    - Tasks distributed, see table above.

Tasks and Modules

Tasks

1.1. Requirements Definition

- Define business requirements to create mission and scope documents
- Write problem definition for technical report.
- Define user requirements to create user requirements documents.
- Define functional and nonfunctional requirements to create SRS documents.

1.2. Software and System Design

- Define software architecture/structure.
- Define creative/visual aspect of user interface (color palette, button design etc.)
- Design database structure and interface.
- Design user authentication module structure and interface.
- Design topic management module structure and interface.
- Design voting module structure and interface.
- Design real-time dashboard module structure and interface.
- Design software testing module structure and interface.

1.3. Implementation and Unit Testing

- Develop the login page.
- Develop the sign up page.
- Develop the voting page.
- Develop topic management page.
- Develop administrator dashboard.
- Perform unit testing for individual components and functions.
- Utilize Espresso for automated unit testing.

1.4. Integration and System Testing

- Perform integration testing of combined modules.
- Conduct system testing for overall functionality.
- Ensure the system satisfies functional requirements.
- Ensure software satisfies non-functional requirements.
- Develop the testing report.

1.5. Operations and Maintenance

- Publish APK release on GitHub.
- Finalize technical report.
- Create the project presentation.
- Create the project poster.

Modules

User Authentication Module:

- Implement user authentication mechanisms to ensure that only authorized users can access the platform.
- Allow users to register, log in, and manage their accounts securely.

Topic Management Module:

- Enable administrators to create, update, and delete discussion topics (polls) for voting.
- Ensure that administrators have the necessary permissions to manage topics.

Voting Module:

- Provide users with the ability to view available topics and vote on them remotely.
- Implement mechanisms to prevent duplicate voting and ensure the integrity of the voting process.

Real-time Dashboard Module:

- Develop a real-time dashboard for administrators to monitor and analyze voting statistics.
- Display comprehensive summaries of current statistics for voted topics, such as total votes, percentage of votes per option, etc.

Software Testing Module

- The unit testing portion of the module should contain all tests for the above modules to ensure that every function meets the requirements.
- The integration testing portion of the module should ensure every above module can work together without any issues.

Task Distribution

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