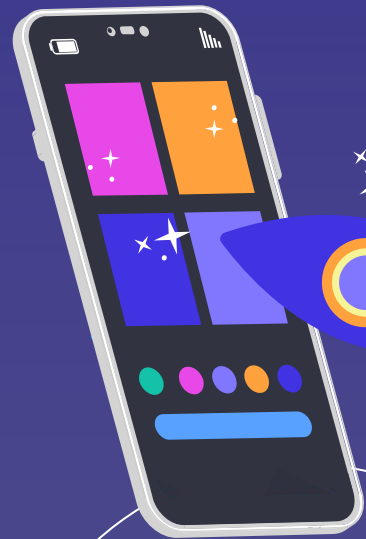


VoxChoice

Empowering Voices, Shaping Choices

Eric Jacob, Felix B



Introduction

- Existing polling services lack mobile application versions, creating a need for accessibility, especially in educational, corporate, familial, and social settings
- Vox Choice addresses this gap by providing a mobile application tailored for android users



Rationale




Vox Choice project aims to streamline group decision-making through an online polling system




Users can express opinions remotely and privately, create, customize, and share polls on various topics.



Functions

- 
- User registration and authentication for secure and unique profiles.
 - Secure login with built-in authentication system.
 - Remote access available on Android platform.
 - Administrators can create and edit polls.
 - Users can vote on their preferred polls.
 - Real-time dashboard shows comprehensive statistics on active polls.

Objectives

- Quick response and communication times.
 - Promote equity, diversity, and inclusion.
 - Enable remote access for participation from anywhere.
 - User-friendly and accessible design.
 - Ensure reliability with minimal crashes.
- 

Constraints

- 
- Must be developed by March 25th 2024
 - Limited to Android Studio
 - Regulatory laws of Canada related to voting platforms in Canada.
 - Funding and resources to maintain and improve the platform
 - Software exportation policies and regulatory constraints
- 

Final Solution



Features

Classes:

CreatePollActivity: Logic to let admins create the poll

Login: Logic for users to login

Poll: Data structure

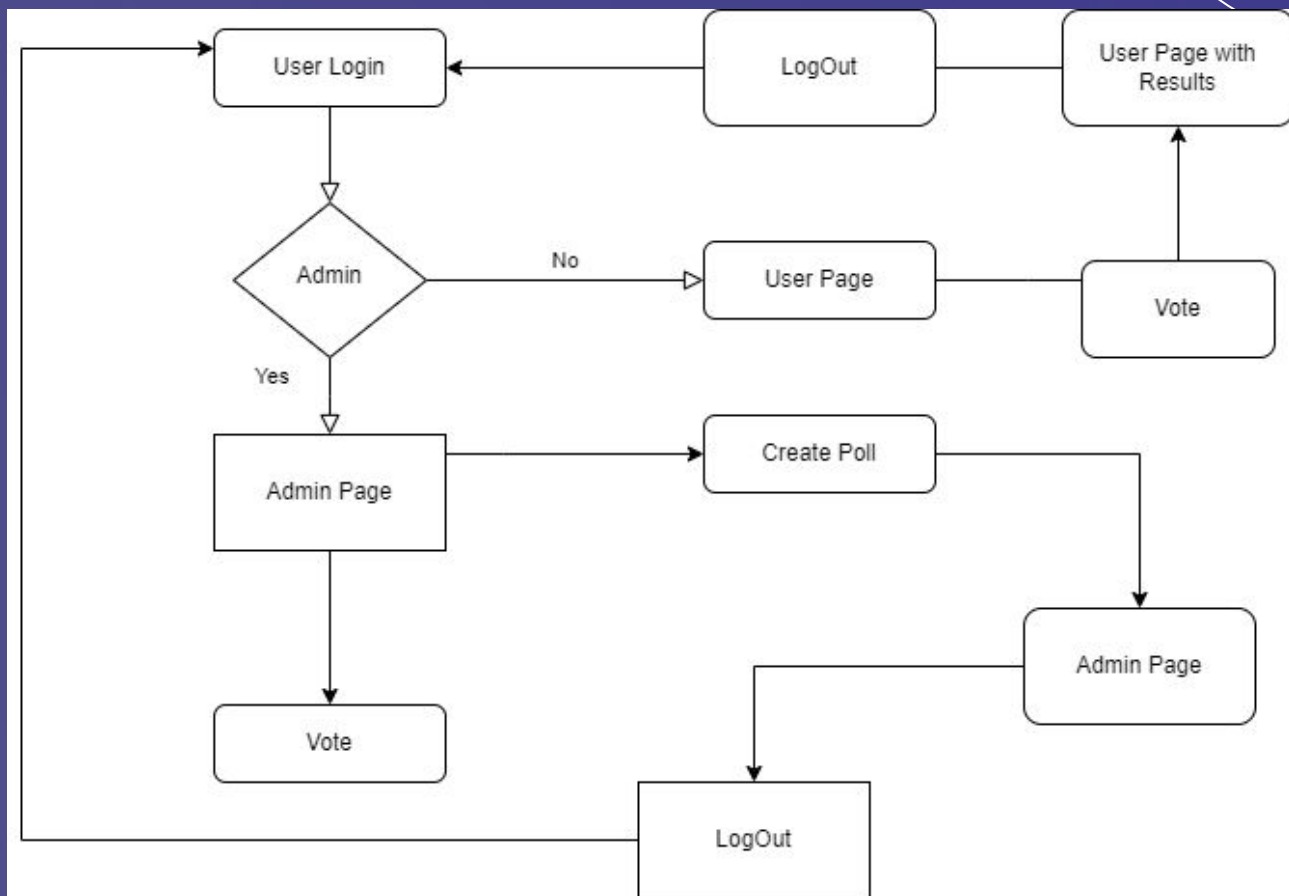
PollAdapter: Logic to communicate with the Firebase databases

SignUp: Logic for registering new accounts



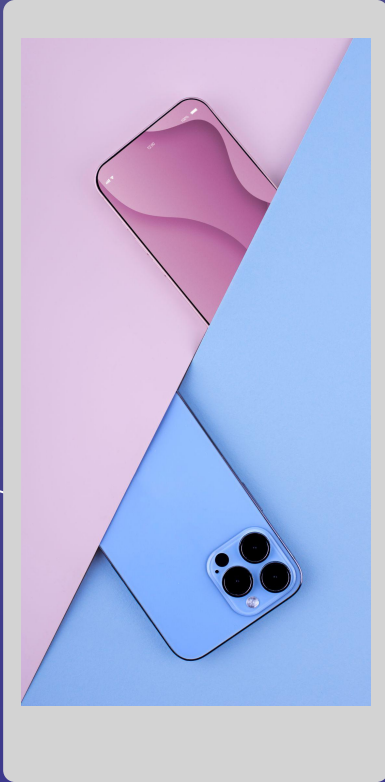
Functionality

- Real-time database integration via Firebase.
- Poll creation and deletion for administrators
- Login and Registering for users
- Voting for different polls for all users
- User authentication through Firebase Authentication



Project Considerations

- Performance: Application meets industry standard and can run on multiple different emulators.
- Security and Integrity: Using Firebase built-in authentication data is safeguarded from external dangers.
- Modifiability: Administrator are able to add and delete polls.
- Device Constraints: Application is compatible with Android API 19 (KitKat) or higher versions.



Limitations

1. Internet dependency.
2. Commercial releases relies on Firebase's pay-as-you-go system for cloud databases.
3. External dependencies: Vulnerabilities in Firebase may impact application security.
4. Regulatory Compliance: Professional guidance on jurisdiction's local regulation prior to commercial release is necessary.



Future Work

- Multi-language support
- User Feedback System
- Notification Feature
- Security Enhancements through multi-step verification
- Cross-Platform Compatibility

Reference

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- <https://firebase.google.com/docs/database>
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