Qzone

Oct 9, 2025

A Location Based Survey Platform

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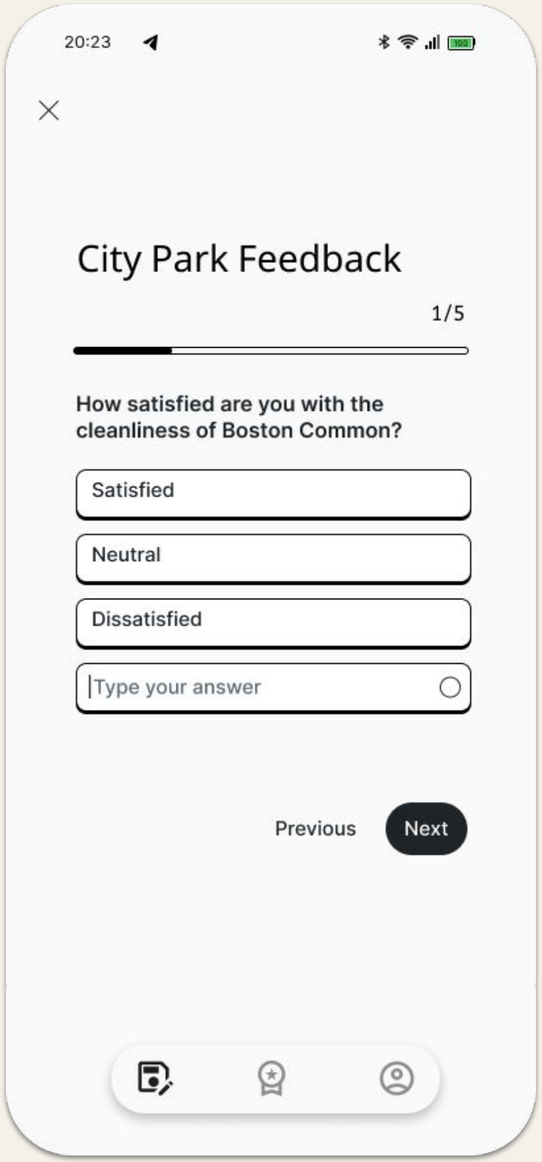
Product Introduction



QZone is a next-generation mobile survey platform developed in Kotlin for Android. It aims to improve the survey experience by connecting survey creators (researchers, marketers, etc.) with a diverse and engaged user base through a geo-targeted reward system.

The process is simple: users open the app to find a list of nearby surveys, complete them for points, and redeem those points for tangible rewards.

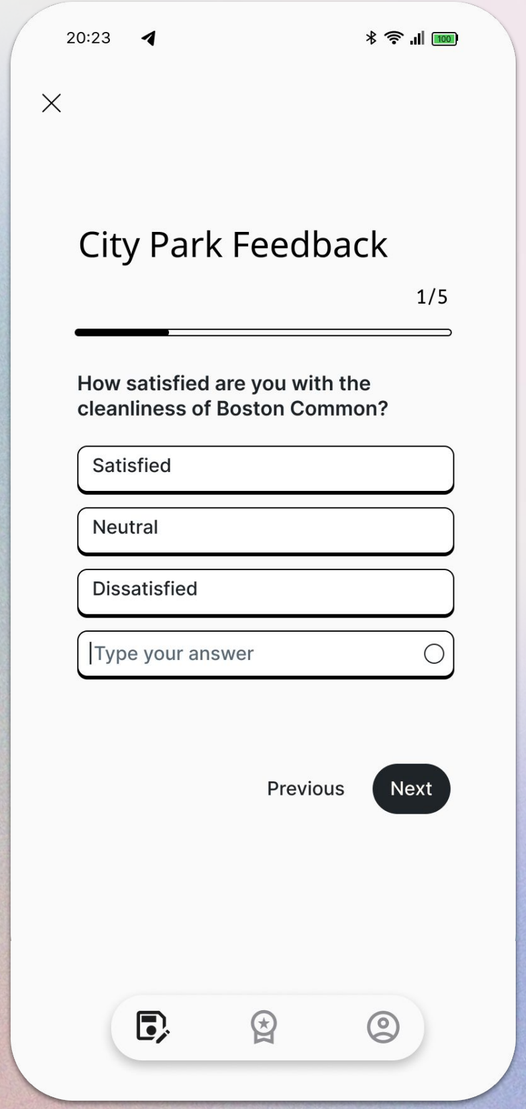
For instance, after leaving a store, a user might get a push notification to review their shopping experience in exchange for points.

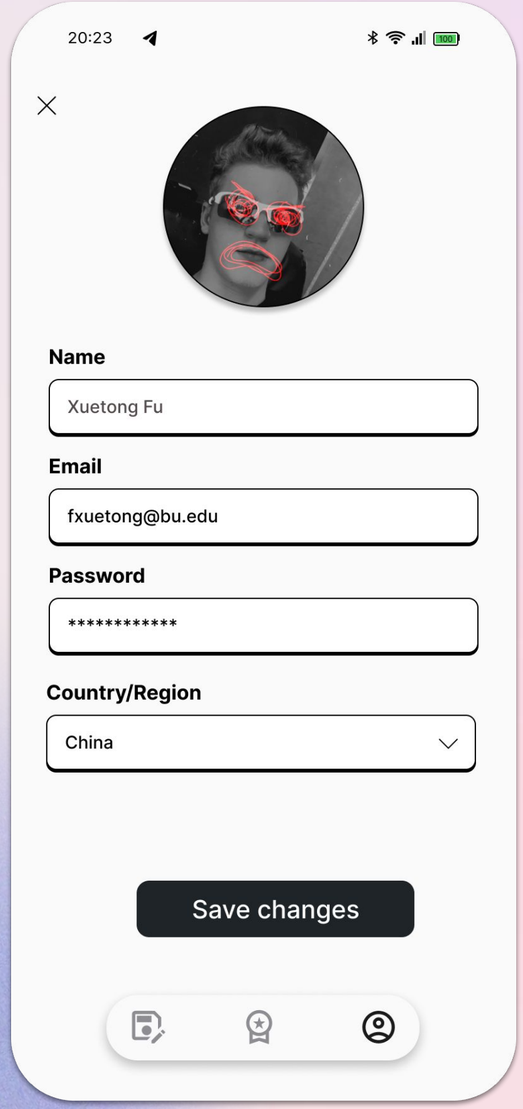
What is the problem?

For Users:
Current survey tools (e.g., web forms, email links) often provide a clunky, unengaging user experience on mobile devices. The motivation to participate is low due to a lack of immediate and valuable incentives. This leads to high drop-off rates and "survey fatigue."

For Clients:
It is challenging and expensive to acquire high-quality, geographically diverse data samples. Existing platforms lack the ability to dynamically target users based on their real-world location.

Features: Survey





MVP

- **Onboarding:** Fast login with Google/Meta/X.
- **Location Feed:** GPS-based local survey list (core).
- **Rewards:** Base points plus creator-set bonuses.
- **Multimedia UI**: Answer via text, images, audio, video.
- **Profiles:** Manage avatar, region, interests.
- **Modern UI/UX:** Dark/Light modes, Material 3 theming.

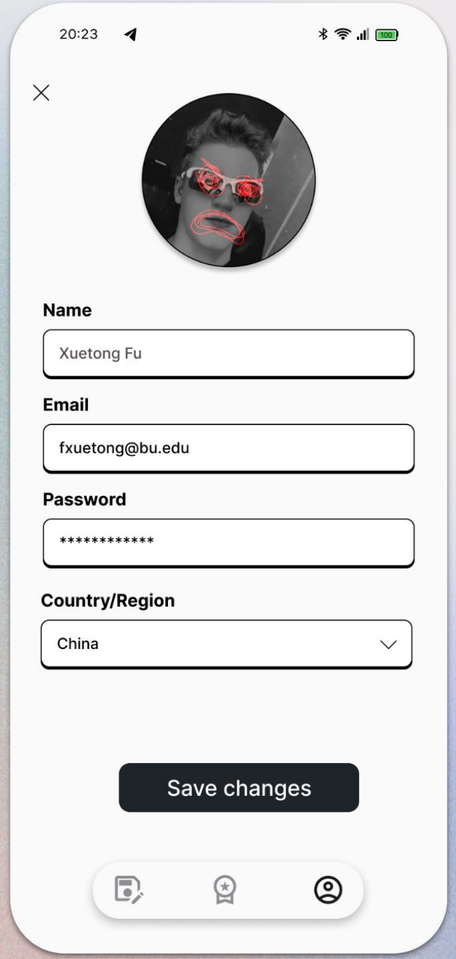
Stretch Goals

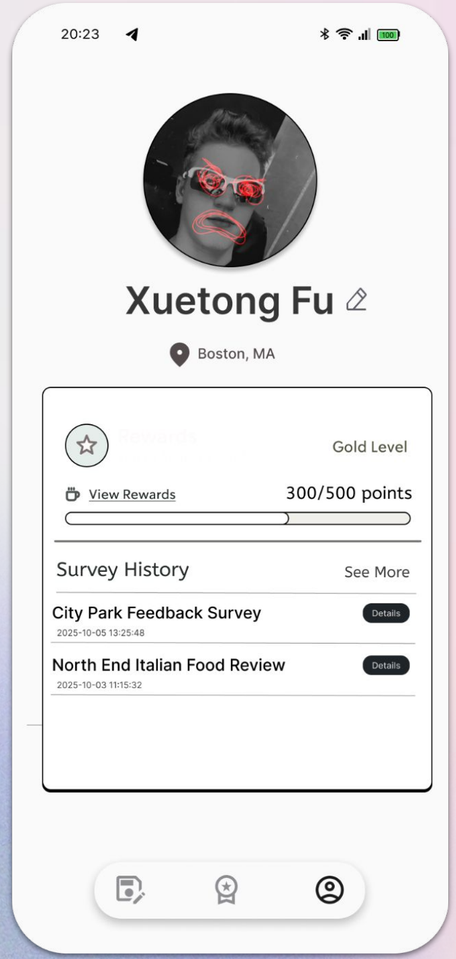
- **Discovery & Targeting:** Interest/demographic matching; search, filters, invite codes; interactive map.
- **Gamification:** Shake-to-refresh; in-app credits for gift cards/coupons.
- **Accessibility:** Color-blind themes, dynamic font sizing, high contrast.

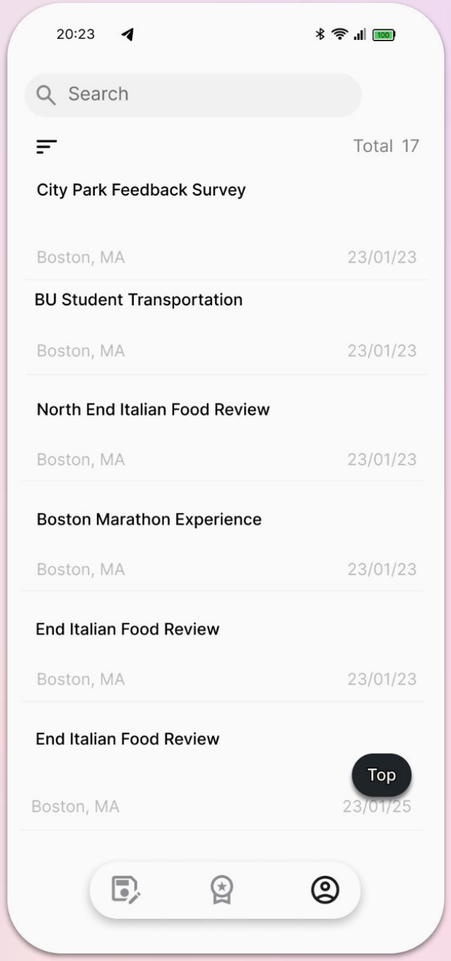
Web Portal (Creators)

- **Builder:** Intuitive survey creation.
- **AI & Templates:** Prompt-based question generation.
- **Analytics:** Real-time dashboard, charts, exportable reports.

Features: Profile







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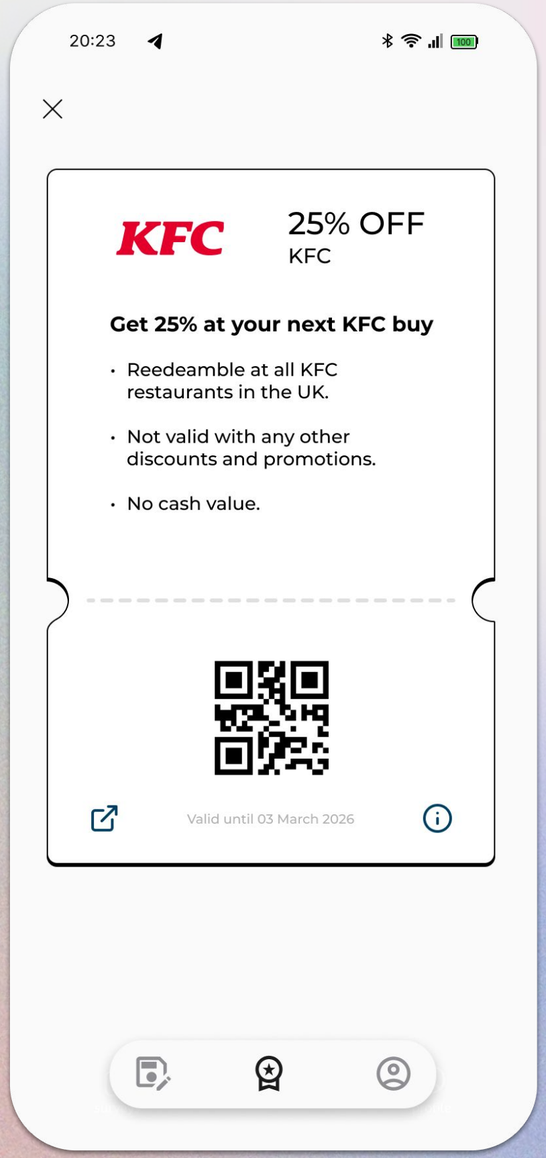
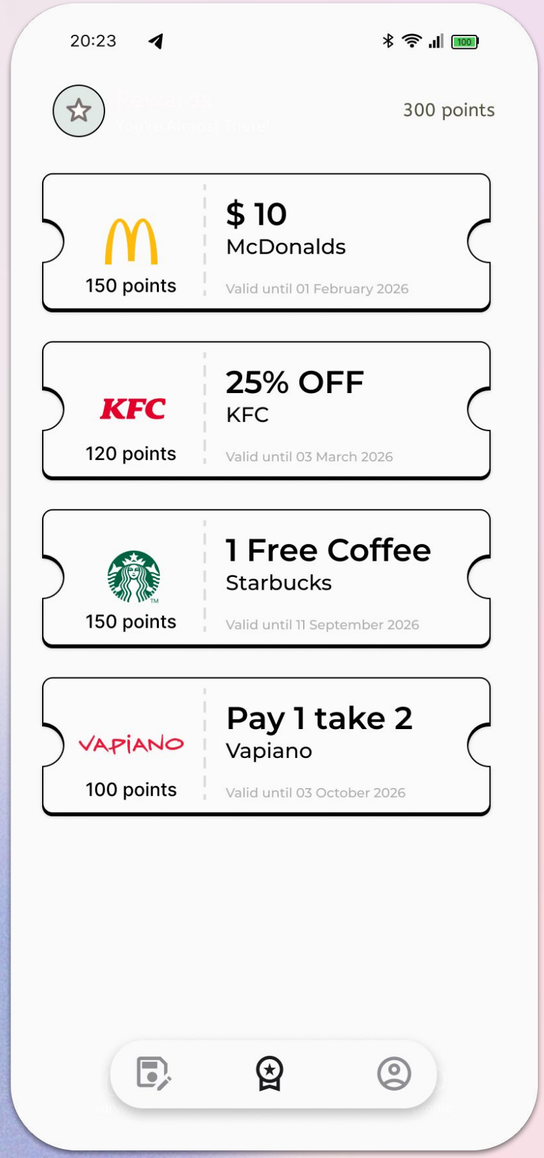
Features: Rewards





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WHAT ABOUT **TECH STACKS**?

First and foremost:
Jetpack compose and MVVM
External APIs: Google Identity Services, Firebase Authentication / Firestore, Google Maps SDK for Android.
Onboard Sensors:GPS / Network Location, Gyroscope, Camera API, Microphone API
Data Storage: Proto DataStore(local data caching)

Team responsibilities

As a collaborative team of three, we will share all design and architecture decisions.

Yifei Bao: Leads user onboarding, login, and user profile data management, survey recommendation algo design.
Xuetong Fu: Leads the survey engine, including the interface for answering questions and submitting data.
Zhenyang Qian: Leads location integration (GPS) for the survey feed and the logic for the rewards system.

Agile Workflow Plan

Week 1 (Oct 6): Finalize and submit our project proposal, and establish the core project architecture.

Week 2 (Oct 13): Begin building the user authentication flow while simultaneously creating the foundational UI for the survey engine.

Week 3 (Oct 20): Enable users to login and navigate to a home screen where a basic, interactive survey can be viewed.

Week 4 (Oct 27): Connect the UI to a live backend to display surveys and show a basic point reward upon completion for our first demo.

Week 6 (Nov 10): Fully implement the dynamic, location-based survey feed and connect the rewards logic to the user's profile.

Week 7 (Nov 17): Implement a core sensor feature like 'shake-to-refresh' and add local data caching for offline support. Starting to implement rewards system.

Week 8 (Nov 24): Following our Interim Presentation 2 (Nov 25), we will polish the core experience and begin developing a stretch goal like the map view.

Week 9 (Dec 1): This week is for comprehensive testing, bug fixing, and overall UI/UX refinement.

Week 10 (Dec 8): We will incorporate feedback from the Final Rehearsal (Dec 9) and prepare all final documentation and presentation materials.

Week 11 (Dec 15): Deliver our final presentation and submit the completed QZone project on Dec 16.

Risks and open questions

- Points-based incentives may induce cheating and low-quality responses—anti-abuse measures and the cost model need validation
- GPS-based location may affect battery life and cpu performance and have potential privacy and security problems.
- How to balance location update frequency and accuracy between privacy compliance and battery life?
- How to set appropriate reward system to attract users?