

Project Proposal: ITS iOS Quiz App

Project Description

Problem to be Solved

- Existing app is not supported by iOS devices
- Ability to create student-created study tools such as flashcards or quiz questions on an iOS device app
- Replicate Android studio app and create the optimal IOS application

Proposed Solution

App Functionality

Currently, there is no mobile application for Quiz app on iOS devices. Based on the prior application already created for the android-based technology, we will be determining a way to create an app using SWIFT for this semester.

Required Features:

Display basic questions and get screens up and moving: formats: MC, SA, flashcards

- MC: multiple-choice → pick one option based on the question (system decides whether the user got it right or wrong)
- Term Matching: type one-word vocab term corresponding to given definition, right or wrong is based on exact string match
- Flashcards: show the front of flash card, the user reveals back of the flash card, the user determines whether they got it right or wrong
- Potentially be able to collect user response
- Allow users to choose various topics to study
- Create wireframes of the pages that should be created and implemented using figma
- Make a progression of the UI and wireframes to demo on the final presentatio day
 - BACK END: Be able to replicate these screens and wireframes for the final demo using swift as well

Future Required Features:

- Setup figma and wire frames to show app progression and potential uses
- Generating quizzes tailored to a content area based on the android studio application
- Make back end progress setting up the api and data collection if possible
- Make the application look aesthetic
 - Based off of the figma and UI research to be conducted

- Streamline/Refactor development process

Future Semester Features:

- Allowing students to pick from various quiz sets
- Connecting quizapp ios to a textbook directory
- Enabling students to be able to add and create their own flashcard sets.
 - Potential for a desktop version of quiz app
- Charing flashcard sets and study material on the app
- Short answer questions and implementing more options to create progress on the app as time goes on

Benefits Of This App

- Convenience: Quick and easy for students to use since the majority of them are on their phone already. Since it will be an iOS application, it will be better integrated with Apple devices.
- The application will have a cleaner UI than the previous Quiz App. Additionally the shift away from Android Studio will allow for better feature development.
- Provides a targeted learning plan for students who are struggling with a certain concept by prioritizing certain content
 - Many times when students are stuck, they are not sure where they are lacking in knowledge - the ML model would provide them questions that would be specifically catered to their skill set

Potential Problems and Pitfalls/Other Areas for Research

- Setting up the swift application
 - Not many of us have experience with this software so it will be a learning experience for many members
 - We want to add the same compatibility as the Android Studio App
 - Incorporate and set up a plan for future members of the VIP to continue and implement
- Research what the optimal backend and front end setups will be and implement them

Implementation

Software and Development Tools

- SWIFT
 - Mobile Application
- Database
 - Cloud-based MongoDB
- Libraries: TBD
- UI-UX wireframing: Figma

- GitHub for File Management
 - Git Kanban Board for workflow management
- Figma
 - Any other Prototyping and diagraming/application flow mapping

Project Goal For This Semester

Last semester, some members of the team aided in the creation of Quizzapp on the android side. Using android studio, we could recreate an application like Quizlet that allowed us to enable users to create flashcards, study sets, and quiz themselves using an app. The goal for this semester is to set up the mobile application using SWIFT for ios devices. This will require standardizing the UI, setting up the backend framework for future uses and implementation, and creating a new project from scratch. We also want to develop and maintain a good understanding of application creation and implementation and make Swift at par with android studio's version of the quiz app.

Milestone	Date Due (Hard deadlines are in bold)	Status
Project Plan Draft	09/15/2022	In progress
Getting set up using swift - solidify proposal		Not Started
Final Project Plan		Not Started
Create a new github repo for this project		Not Started
Make sure everyone is familiar with using github and that their machines work		Not Started
Split into Teams and Start Work Backend and front end: assign tasks and basics		
Front end - figma and create wireframes for the application		Not Started
Continued work - depends on previous progress - see requirements section		Not Started
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Continued work - depends on previous progress - see requirements section		Not Started
Prepare for Demo + Final Touches		Not Started
Demo		Not Started
Project Cleanup and Final Documentation		Not Started
Final Presentation		Not Started
Final Peer Review		Not Started
Project Submission		Not Started

Group Membership

Member Skill Sets

Member	Time Commitment and Credits	Skills and Interests
Neha Lalani	6-8 hours/week (2 credits)	JvaScript, Java, SQL, Basic HTML and CSS, Android Studio
Zhen Hong Tan	6-8 hours/week (2 credits)	Java, Python, HTML/CSS, C/C++, SQL
Aahan Kerawala	6-8 hours/week (2 credits)	Python, Java, C, HTML
Sakshi Deshpande	6-8 hours/week (2 credits)	Java, JavaScript, HTML/CSS, React, Python, C/C++, SQL
Devang Ajmera	6-8 hours/week (2 credits)	Java, Python, Basic HTML/CSS, SQL
Sabina Ajjan	4 - 6 hours/ week (1 credit)	Java, Basic HTML/CSS, basic SQL

Task Assignment and Participation

Team Logistics

- Project Manager/Facilitator - Updates tasks/timelines, checks in on progress, schedules meetings, facilitates meetings
 - Neha Lalani
- Scribe - Takes notes during meetings; works with Project Manager to disseminate notes
- Logistics - Makes sure everything is turned in on time and deadlines are met
 - Aahan Kerawala

Work Division

- Front-end developers + UI/UX redesign - Swift and coding up UI for Quiz App
 - Neha Lalani
 - Aahan Kerawala
 - Sakshi Deshpande
 - Devang Ajmera
- Back-end developer: (1) standardize and develop KT communication, (2) refine MongoDB data extraction - work with front-end developers
 - Zhen Hong Tan
 - Devang Ajmera
 - Sabina Ajjan
- Designing + design interfaces implementation overall
 - Neha

Communication Resources

- Weekly meetings Mondays 7:30-8:30 pm EST via Teams
- Scheduler: Lettuce Meet
- Google Drive: meeting notes, design documents
- Groupme or imessage group chat for chatting daily