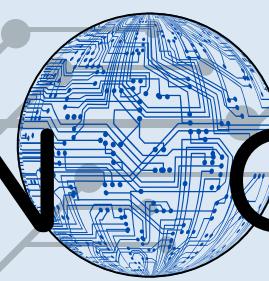




# TECHN QUIZ

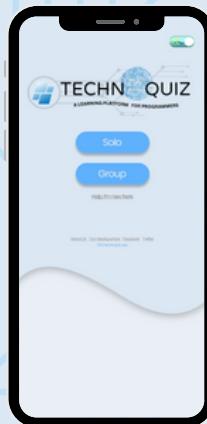
E-LEARNING PLATFORM FOR PROGRAMMERS



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# PROJECT DESCRIPTION

## What's in TECHNOQUIZ



The TechnoQuiz mobile application seeks to give students with an engaging and interactive platform to improve their educational experience in all aspects of IT and computer science. Batangas State University - The National Engineering University, specifically Batangas State University - Alangilan Campus , is well-known for its significant concentration on technology-related courses, with the BSCS and BSIT departments playing important roles in the production of skilled professionals in the sector. Traditional evaluation methods of professional instructors, such as written tests and quizzes, may not always capture students' real ability or provide rapid feedback for growth. The TechnoQuiz app strives to address these constraints by offering an interactive and engaging assessment tool which enables students to apply and evaluate their understanding in real time.

# DEVELOPMENT MODEL

In the development of the mobile application, the developers will use agile methodology. By applying agile methodology, this method focuses on delivering solutions swiftly and efficiently, while also focusing on quality improvement. This means that the development process is intended to create mobile app that is not only helpful, but also of high quality and capable of meeting the needs of users that can be to foster their learning, skill development, engagement, and community-building within the domain of technology.



# DEVELOPMENT MODEL



## Planning

the first phase of the system development is the planning, it includes the analyzing, goal and also the purpose of the system that will guide in the development process of the system.



## Design

the design phase is the specification document that was developed to outline the design's technical needs. This phase will also improve the system's interface.



## Development

the development phase involves the creation of the application, combining the thoughts of the system requirements and design in order to meet all defined system criteria



## Testing

the testing phase involves the testing and integration of the code to make sure that it works. Its purpose is to guarantee that every component of the mobile application is working and performing the desired functions.

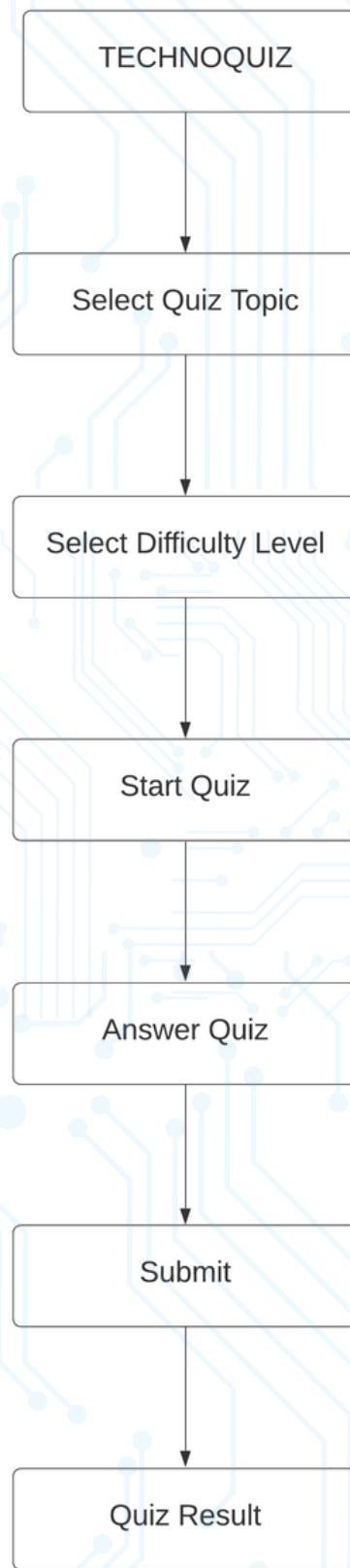


## Deployment

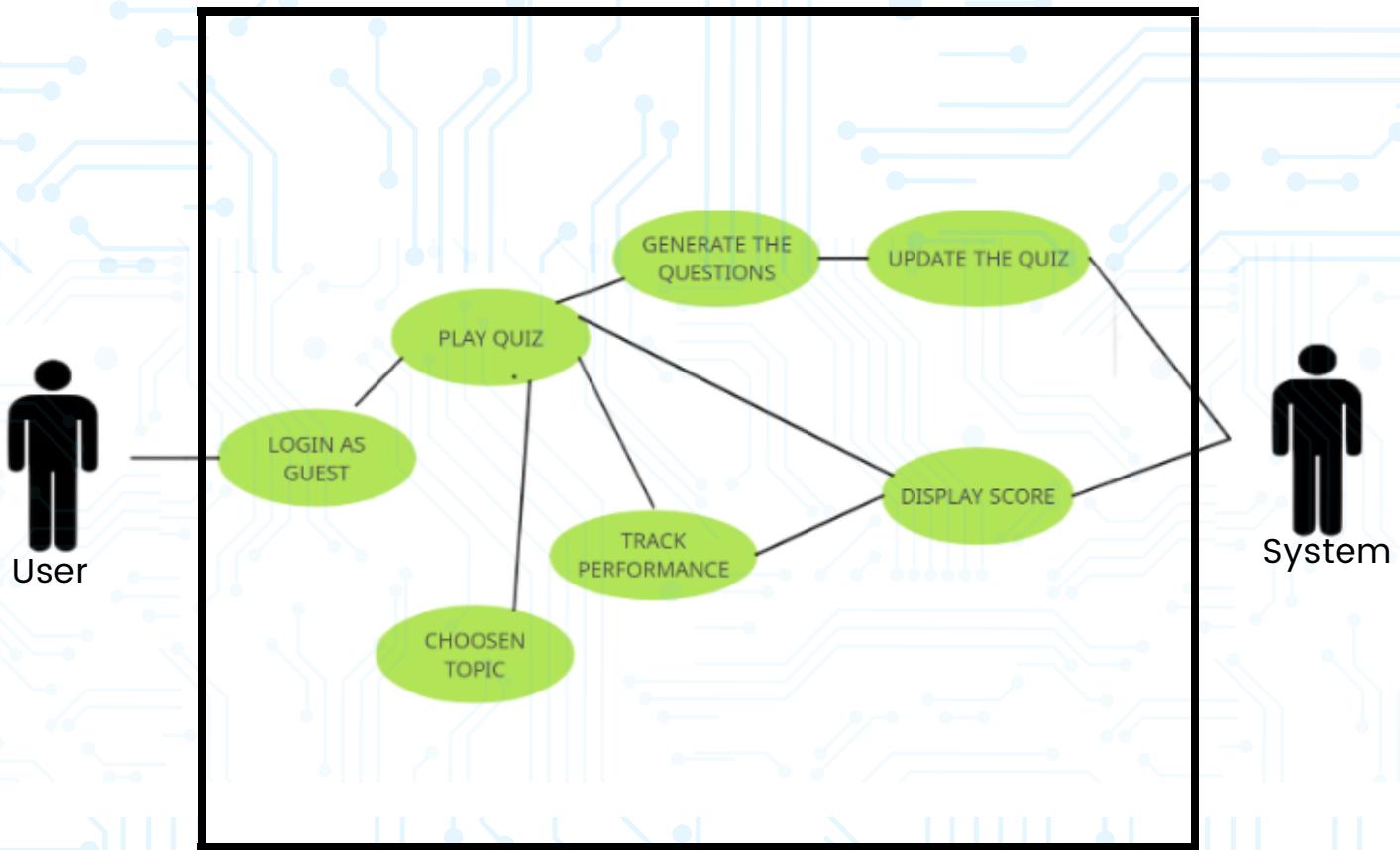
the deployment phase begins once the testing is completed, then the mobile application is ready for deployment.

# SYSTEM ARCHITECTURE

In this system architecture, it shows the functionality of the TechnoQuiz App by learning the various structures and elements of the system, and how the user interacts, and learn the proper way in which the functionality is to be implemented



# SYSTEM ARCHITECTURE



This use case diagram describes the high-level functions and scope of the system. These diagrams also identify the interactions between the system and its actor. The use case and actor in use case diagram describe what the system does and how actor uses it, but not how the system operates it.



# GITHUB REPOSITORY

The image shows a tablet displaying a GitHub repository page for the user 'mariusjacob-batstateu' with the repository name 'technoQuiz'. The page includes a search bar, navigation links like 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', and 'Insights', and a code editor interface with a 'Code' button. The main content area shows a list of files and their commit history:

File	Description	Last Commit
.vscode	sample	yesterday
node_modules	draft1	5 days ago
src	sample	yesterday
.browserslistrc	sample	yesterday
.editorconfig	sample	yesterday
.eslintrc.json	sample	yesterday
.gitignore	sample	yesterday
README.md	Update README.md	9 minutes ago
angular.json	sample	yesterday
ionic.config.json	sample	yesterday
karma.conf.js	sample	yesterday
logo.png	Add files via upload	yesterday
package-lock.json	sample	yesterday
package.json	sample	yesterday
sample.txt	sampletext	2 weeks ago
tsconfig.app.json	sample	yesterday

On the right side of the page, there are sections for 'About', 'Releases', 'Packages', 'Contributors', and 'Languages'. The 'About' section notes 'No description, website, or topics provided.' and lists activity metrics: 1 star, 1 watch, and 0 forks. The 'Releases' section indicates 'No releases published' and 'Create a new release'. The 'Languages' section is currently empty.



# GITHUB REPOSITORY

A black tablet device is centered in the image, displaying a GitHub repository page. The repository name is 'TECHNOQUIZ'. The page shows a list of files: karma.conf.js, logo.png, package-lock.json, package.json, sample.txt, tsconfig.app.json, tsconfig.json, and tsconfig.spec.json. All files were added yesterday except for sample.txt, which was added 2 weeks ago. Below the file list is a 'README.md' section containing the text 'TECHNOQUIZ: E-Learning Platform for Programmers'. To the right of the file list, there is a 'Contributors' section showing 6 contributors with small profile icons, and a 'Languages' section showing TypeScript (63.9%), SCSS (21.6%), HTML (11.7%), and JavaScript (2.8%). At the bottom right of the screen, there is a 'Suggested Workflows' section with three items: 'Actions Importer', 'SLSA Generic generator', and 'Webpack'. Each item has a 'Set up' or 'Configure' button. The background of the entire image features a light blue circuit board pattern.



# GITHUB REPOSITORY

The screenshot shows a GitHub repository page for "TECHNOQUIZ: E-Learning Platform for Programmers". The page includes a README.md file, a logo for "TECHNO QUIZ E-LEARNING PLATFORM FOR PROGRAMMERS", and a sidebar with "Suggested Workflows" for Actions Importer, SLSA Generic generator, and Webpack.

README.md

TECHNOQUIZ: E-Learning Platform for Programmers

Suggested Workflows  
Based on your tech stack

- Actions Importer Set up  
Automatically convert CI/CD files to YAML for GitHub Actions.
- SLSA Generic generator Configure  
Generate SLSA3 provenance for your existing release workflows
- Webpack Configure  
Build a NodeJS project with npm and webpack.

More workflows Dismiss suggestions

TECHNO QUIZ  
E-LEARNING PLATFORM FOR PROGRAMMERS



# GITHUB REPOSITORY

A black smartphone is shown from a top-down perspective, displaying a screenshot of a GitHub repository page. The page title is "README.md". Below it, a section titled "INTRODUCTION" contains text about the project's goal to create a mobile quiz app for Batangas State University students. Another section, "SUSTAINABLE DEVELOPMENT GOAL", features an image of a girl with glasses looking at a book, with the text "4. QUALITY EDUCATION" overlaid. The background of the phone screen is red, and the overall background of the entire image is a light blue circuit board pattern.

README.md

## INTRODUCTION

Mobile applications have become a vital part of our everyday lives in the age of technology breakthroughs, transforming different elements of communication, recreational activities, and education. The integration of mobile apps with traditional learning methods has resulted in substantial gains in the sphere of education, in particular. With the increased need for creative and engaging learning tools, there is a rising need for a mobile quiz application developed exclusively for Batangas State University's BSCS (Bachelor of Science in Computer Science) and BSIT (Bachelor of Science in Information Technology) departments. Thus, the goal of this project is to create and construct a mobile quiz app called "TechnoQuiz" to improve students' learning experiences in these departments.

Batangas State University - The National Engineering University, specifically Batangas State University - Alangilan Campus, is well-known for its significant concentration on technology-related courses, with the BSCS and BSIT departments playing important roles in the production of skilled professionals in the sector. Traditional evaluation methods of professional instructors, such as written tests and quizzes, may not always capture students' real ability or provide rapid feedback for growth. The TechnoQuiz app strives to address these constraints by offering an interactive and engaging assessment tool which enables students to apply and evaluate their understanding in real time.

## SUSTAINABLE DEVELOPMENT GOAL

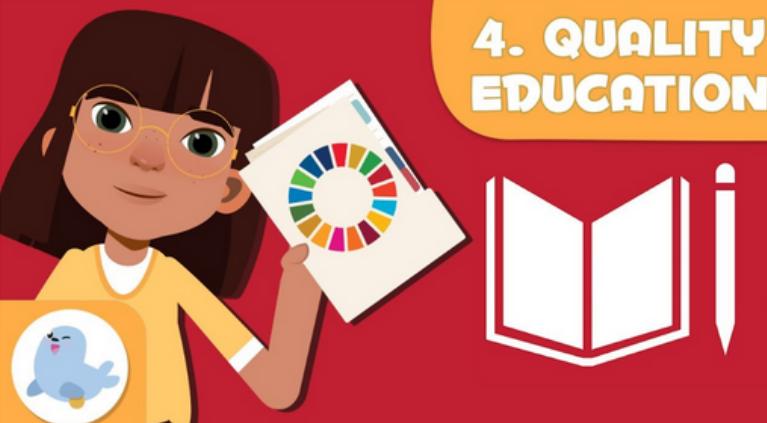




# GITHUB REPOSITORY

README.md

## SUSTAINABLE DEVELOPMENT GOAL



**4. QUALITY EDUCATION**

The illustration features a young girl with brown hair and glasses, wearing a yellow shirt with a blue bird logo. She is holding up a white book that displays the United Nations Sustainable Development Goals (SDG) circular logo. To her right is a white icon of an open book with a pencil next to it. The background is red.

SDG 4, which focuses on quality education, is critical for constructing a sustainable future. It seeks to promote quality education that is equitable and inclusive for all, with a primary focus on academic achievement and opportunities for lifelong learning. The development of a new quiz app called TechnoQuiz is one unique technique to boost education and promote involvement. This software has the potential to significantly contribute to SDG 4 by utilizing the power of information technology to deliver accessible and participatory learning experiences. The app's ability to intellectually engage college students, increase comprehension, and provide personalised educational opportunities makes it a great tool for promoting SDG 4 goals. TechnoQuiz can make a big contribution to developing a sustainable future based on quality education by using technology's potential.



# GITHUB REPOSITORY

A black smartphone is shown from a top-down perspective, displaying a white document titled "README.md". The document contains sections like "PURPOSE AND DESCRIPTION" and "DEVELOPMENT MODEL", with accompanying text. The phone has a circular camera lens on its top edge and a speaker grille on its right side.

README.md

## PURPOSE AND DESCRIPTION

The TechnoQuiz app aims to provide a convenient and dynamic platform for students to test their understanding, reinforce concepts, and remain up to date on the newest technological breakthroughs. This application will provide a flexible learning experience by utilizing the capabilities of mobile devices, allowing students to connect with the course material outside of the typical classroom setting. TechnoQuiz will encourage students to take an active role in their own learning process with a user interface that is easy to use and well-designed features, encouraging a culture of continual development and academic success. The TechnoQuiz app will have a huge collection of technology-related questions that will be divided into topics and its difficulty levels. Students will be able to select their favourite topic, take timed quizzes, and measure their development over time. The app will also have performance statistics, which will allow students to discover their strengths as well as their weaknesses and recommend appropriate study materials to help them better understand specific topics.

Furthermore, TechnoQuiz will develop a sense of drive and academic success among students. The effective creation and deployment of TechnoQuiz has the potential to transform the learning experience of Batangas State University's BSCS and BSIT students. This mobile quiz software will provide a rich and engaging learning platform by bringing technology into the educational journey, developing critical thinking abilities, retention of information, and academic advancement. As a result, students using TechnoQuiz can experience a holistic learning environment that nurtures their intelligence, critical thinking skills, and overall academic growth.

The application features a user-friendly interface, allowing college students to navigate seamlessly through the vast collection of quizzes. Each quiz is carefully developed by a team of subject matter experts and educators, ensuring that the questions are relevant, challenging, and aligned with college-level curricula. In addition, TechnoQuiz provides detailed explanations and references for each question, enabling students to learn from their mistakes and expand their knowledge further. With its comprehensive question bank and personalized progress tracking, the application enables students to identify their strengths and weaknesses, resulting in a targeted and tailored learning experience.

## DEVELOPMENT MODEL



# GITHUB REPOSITORY

README.md

## DEVELOPMENT MODEL

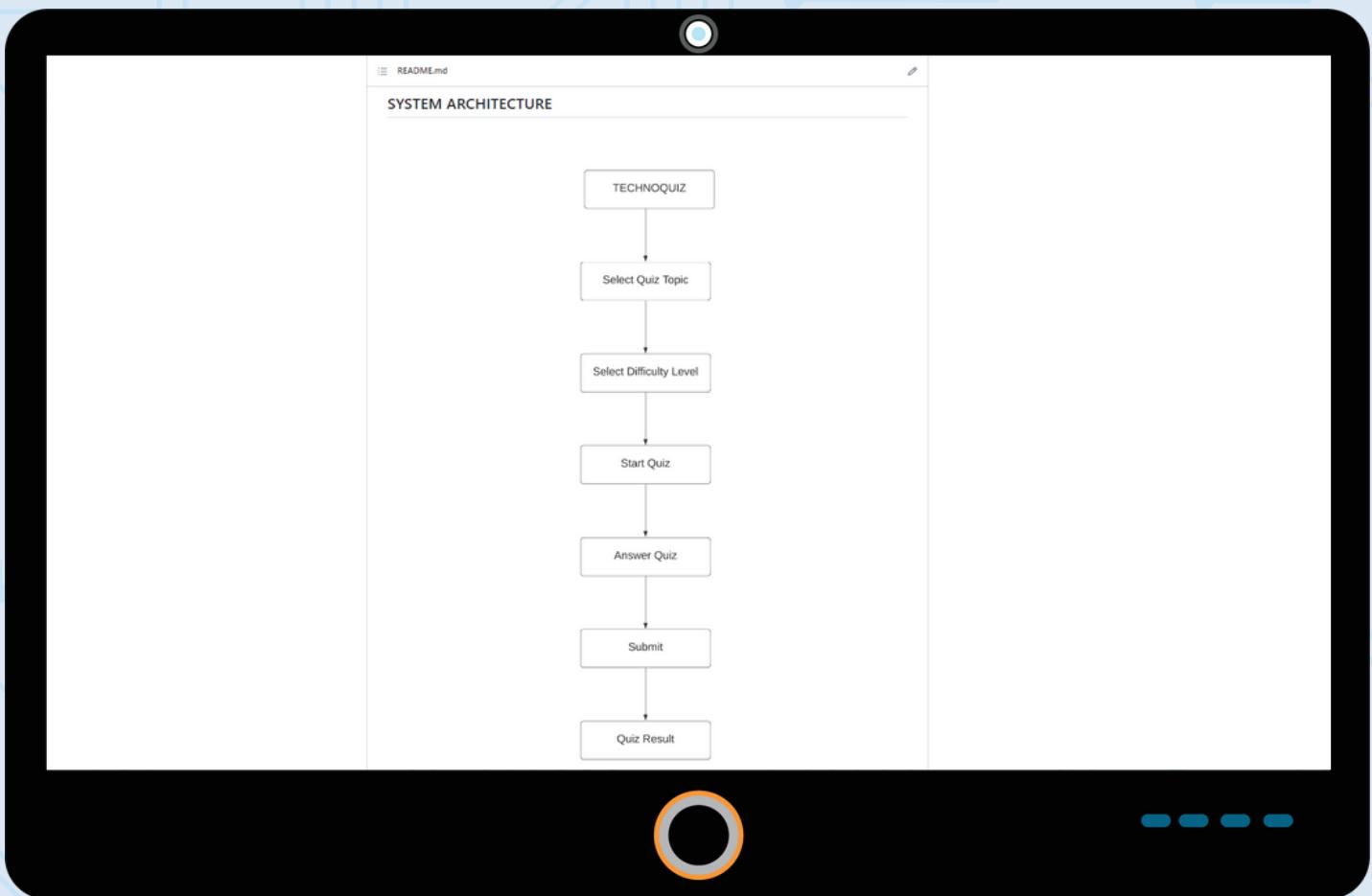
The diagram illustrates the Agile development model as a circular process. It is divided into five segments, each representing a phase: 1. Planning (top, purple), 2. Design (right, light green), 3. Development (bottom, light blue), 4. Testing (left, pink), and 5. Deployment (top-left, orange). Arrows indicate a clockwise flow between the phases.

In the development of the mobile application, the developers will use agile methodology. By applying agile methodology, this method focuses on delivering solutions swiftly and efficiently, while also focusing on quality improvement. This means that the development process is intended to create mobile app that is not only helpful, but also of high quality and capable of meeting the needs of users that can be to foster their learning, skill development, engagement, and community-building within the domain of technology.

## SYSTEM ARCHITECTURE

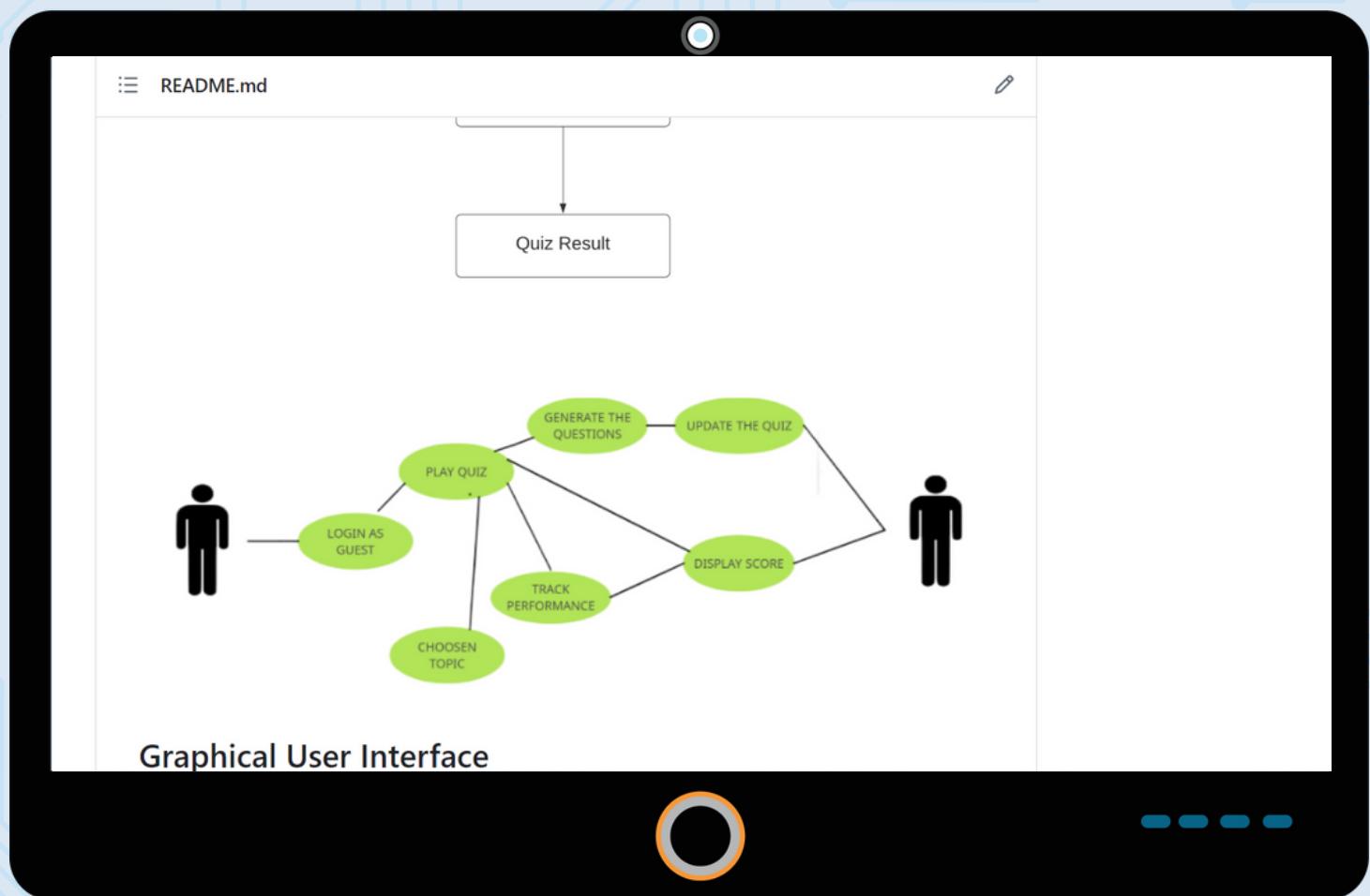


# GITHUB REPOSITORY





# GITHUB REPOSITORY



# GRAPHICAL USER INTERFACE



The image shows two smartphones side-by-side, both displaying the "TECHNO QUIZ" application. The left phone displays the landing page with a "Play" button, a "Help... I'm new here" link, and navigation links for "About Us", "Our Headquarters", "Social Media", and "Email". The right phone displays a "Select game options" screen with various categories and difficulty levels.

**Select game options**

Category	Difficulty	
Random	Linux	SQL
DevOps	CMS	
Docker	Wordpress	
Javascript	HTML	
Kubernetes	BASH	
PHP	MySQL	
Easy	Medium	Hard
		Random

**Start**

# GRAPHICAL USER INTERFACE



Which file is the single most important file in Wordpress?

header.php  
Try again

wp-setting.php

wp-config.php

page.php

Submit

Your score

✗ Question 1	i
✗ Question 2	i
✗ Question 3	i
✗ Question 4	i
✓ Question 5	i

1/5

Back to home

# GRAPHICAL USER INTERFACE



The image shows two smartphones side-by-side, both displaying the "TECHNO QUIZ" application on a dark-themed interface.

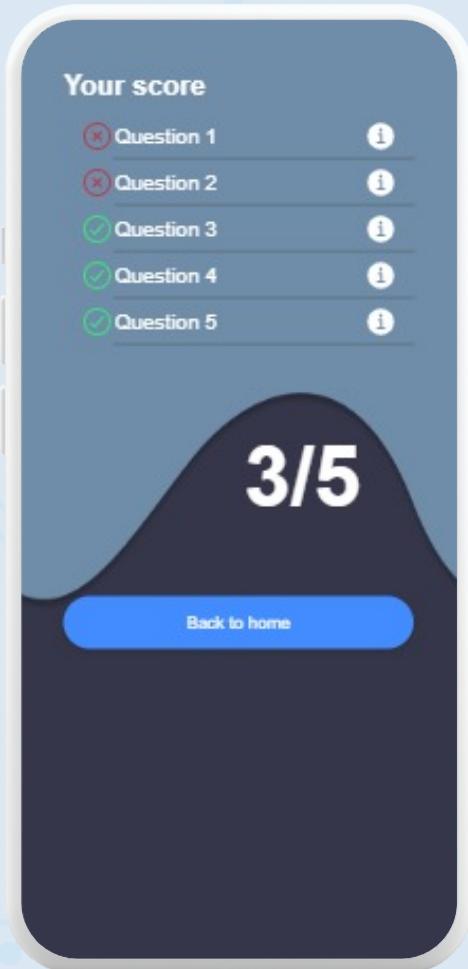
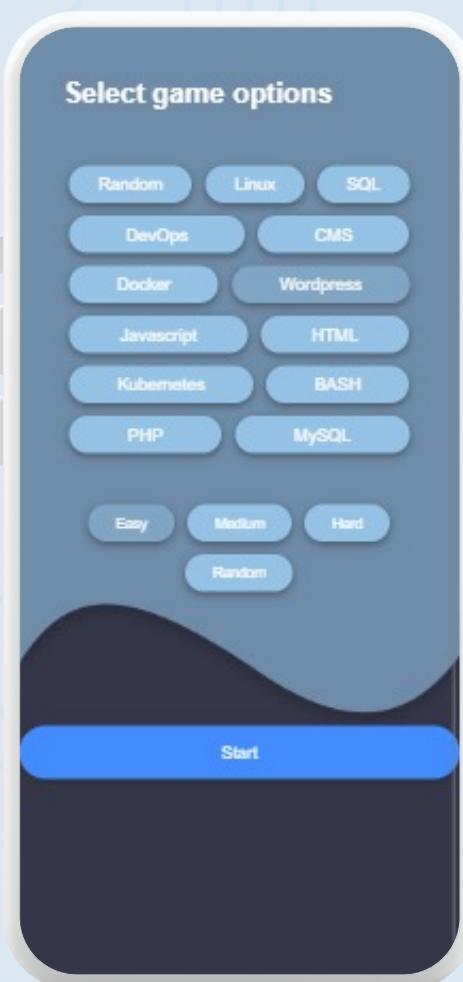
**Left Phone Screen (Landscape View):**

- Top right: "Dark" toggle switch.
- Logo: "TECHNO QUIZ" with a gear icon, followed by "A LEARNING PLATFORM FOR PROGRAMMERS".
- Large blue button: "Play".
- Text: "Help, I'm new here".
- Bottom navigation bar: "About Us", "Our Headquarters", "Social Media", and "Contact".
- Text at the bottom: "2023 technquiz.corp".

**Right Phone Screen (Portrait View):**

- Title: "Select game options".
- Grid of buttons:
  - Row 1: Random, Linux, SQL
  - Row 2: DevOps, CMS
  - Row 3: Docker, Wordpress
  - Row 4: Javascript, HTML
  - Row 5: Kubernetes, BASH
  - Row 6: PHP, MySQL
- Difficulty buttons: Easy, Medium, Hard, Random.
- Large blue "Start" button at the bottom.

# GRAPHICAL USER INTERFACE



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