



Institute of Technology of Cambodia
Department of Information and Communication Engineering



ALLWEB Online Quiz for Recruitment

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Duration : 12 July 2022 – 11 October 2022

Academic Year 2021-2022

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INTRODUCTION

1. INTRODUCTION

1.1 Company Overview

ALLWEB Co., Ltd is one of the leading Cambodia IT companies since 2004. The company currently has partners from around the world and also has experience systems used in companies, banks, and shops in Europe and Asia.



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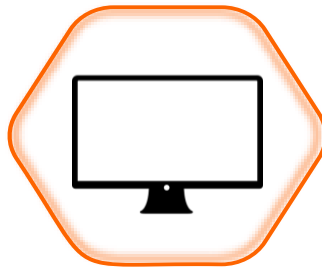
Duration : 12th July – 11th October 2022

1. INTRODUCTION

1.2 Company service



Mobile Development



Website Development



E-commerce Development



Hosting & domain name



Network and IT support



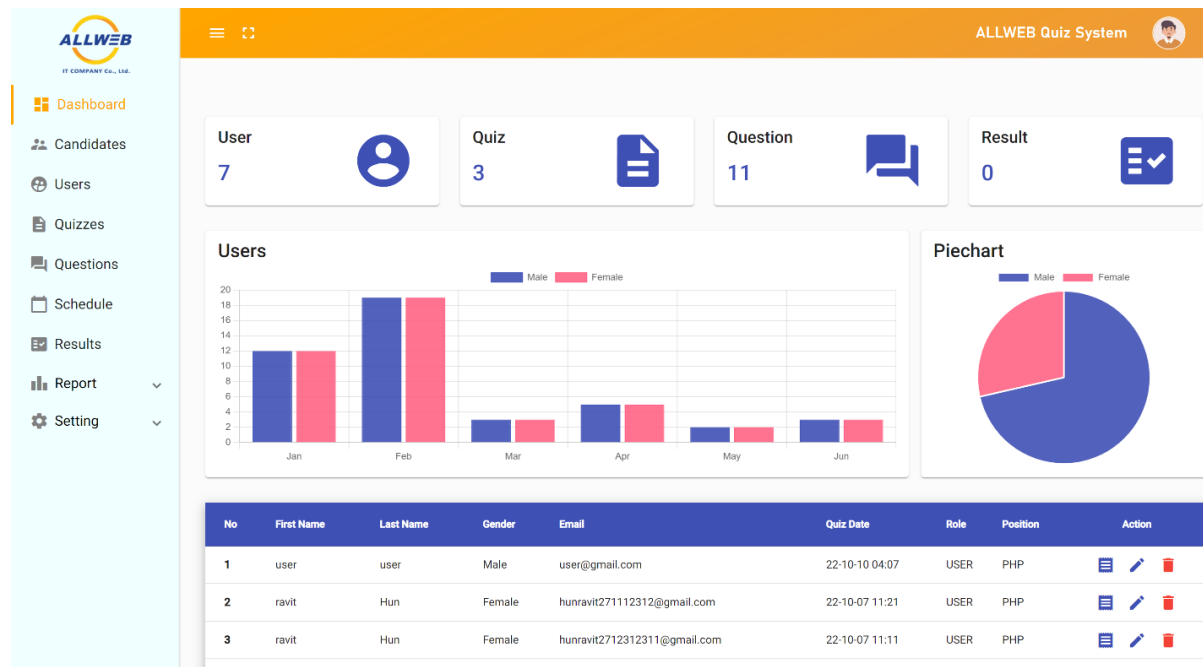
IT & Strategy Consulting

1. INTRODUCTION

1.3 What is ALLWEB Online Quiz for Recruitment?



ALLWEB Online Quiz for Recruitment is a website project to digitalize the traditional quiz paper to adapt to the new age of IT evolution. It will be used to test all shortlisted candidates that apply for any position with ALLWEB Co., Ltd.



1. INTRODUCTION

1.4 Problems Overview

The reason that we propose to build this system is:

- Wasted the recruitment working time printing out the quiz
- The limited question and static order
- Difficult to keep historical records of candidate
- Difficult to manage time for each test



1. INTRODUCTION

1.5 Objectives

Build a website application that can provide:

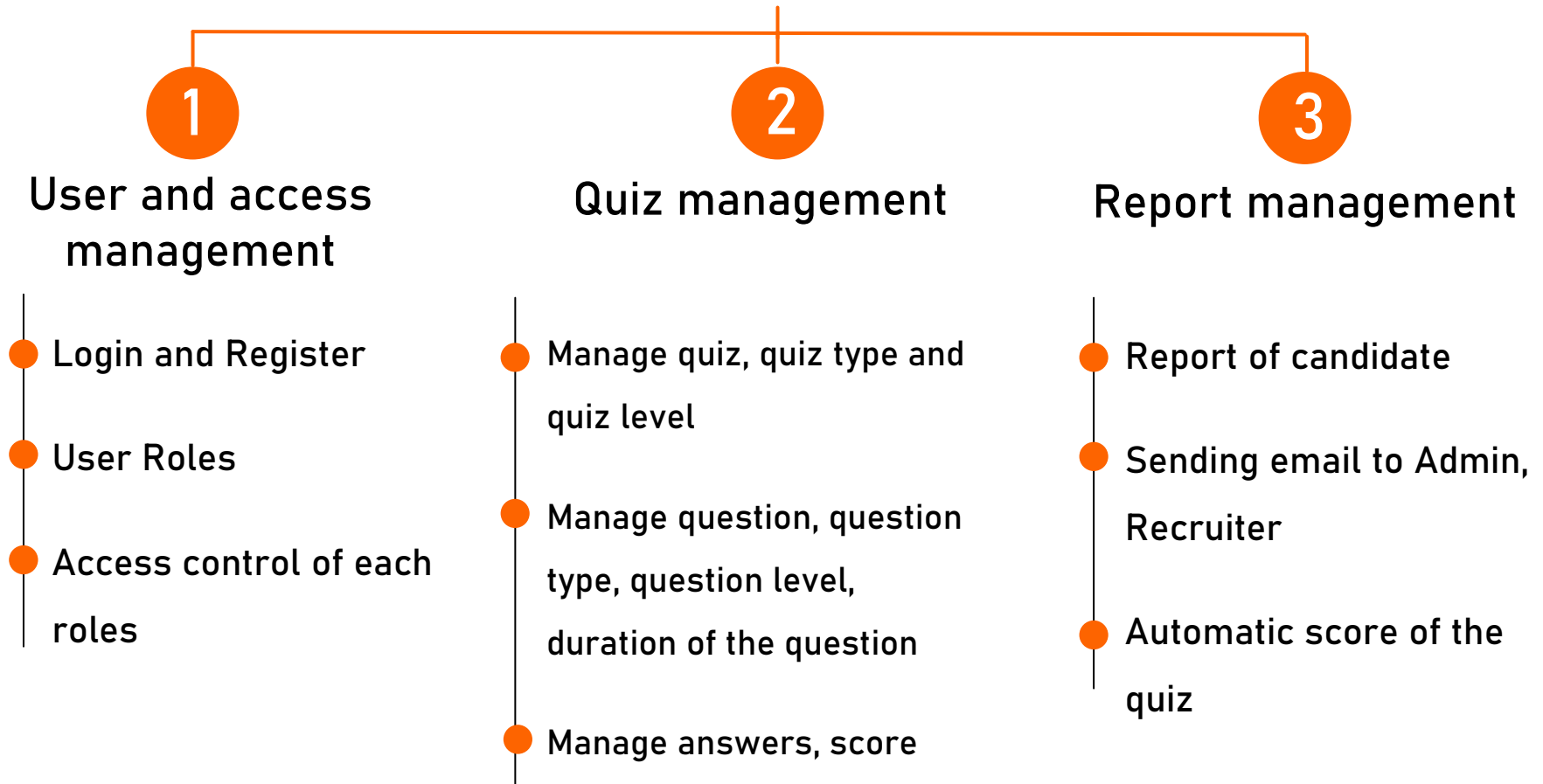
- Automatically set the quizzes for the candidate
- Able to manage time
- Can calculate the points
- Random order questions
- Store candidate information and result
- Many types of questions



1. INTRODUCTION

1.6 Project Scope

ALLWEB Online Quiz for Recruitment



1. INTRODUCTION

1.7 Planning

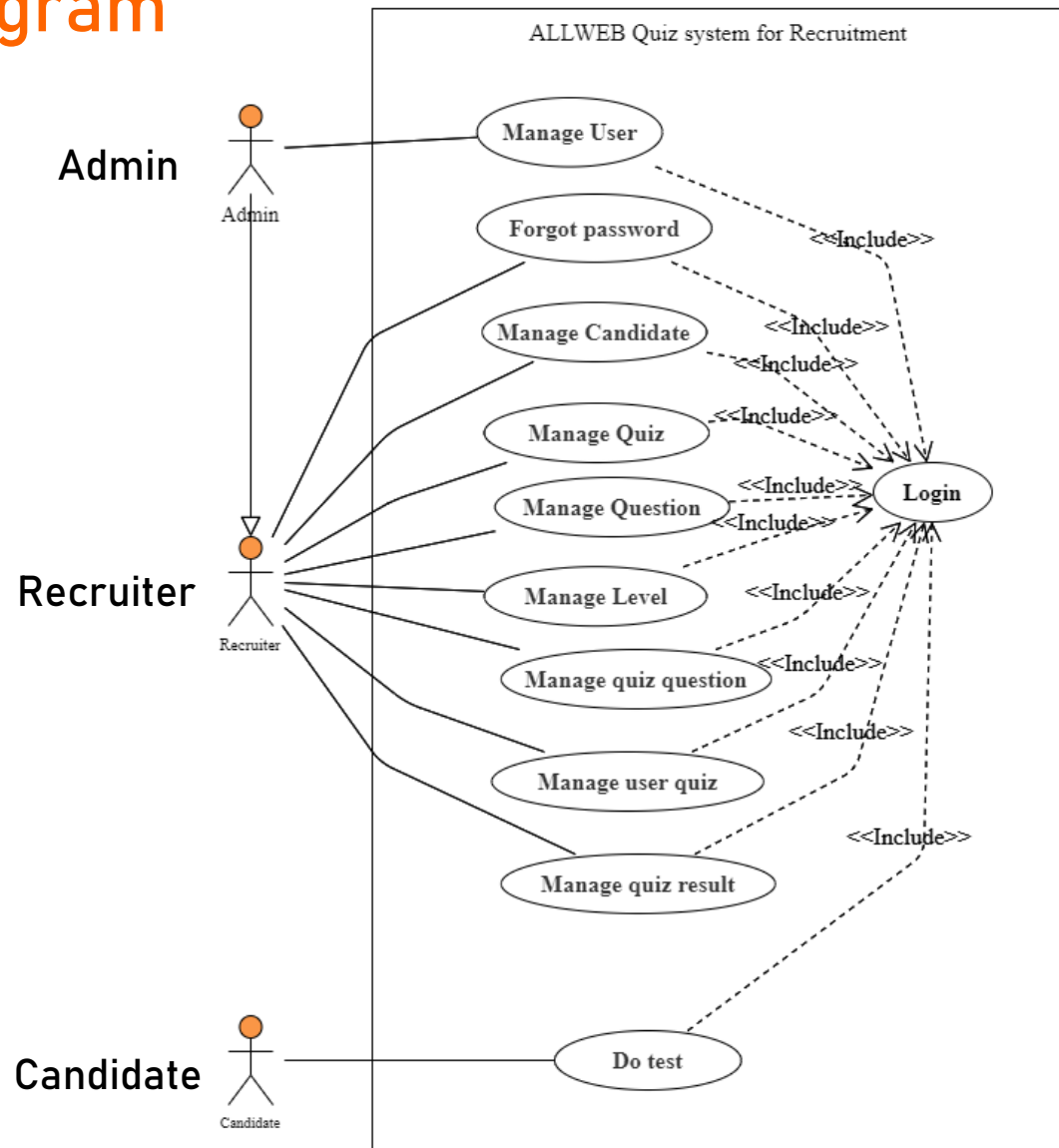
Tasks	Weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
Learn new technology												
Analyze and design the project requirements												
Implementation												
Testing												
Deployment												



ANALYSIS AND DESIGN

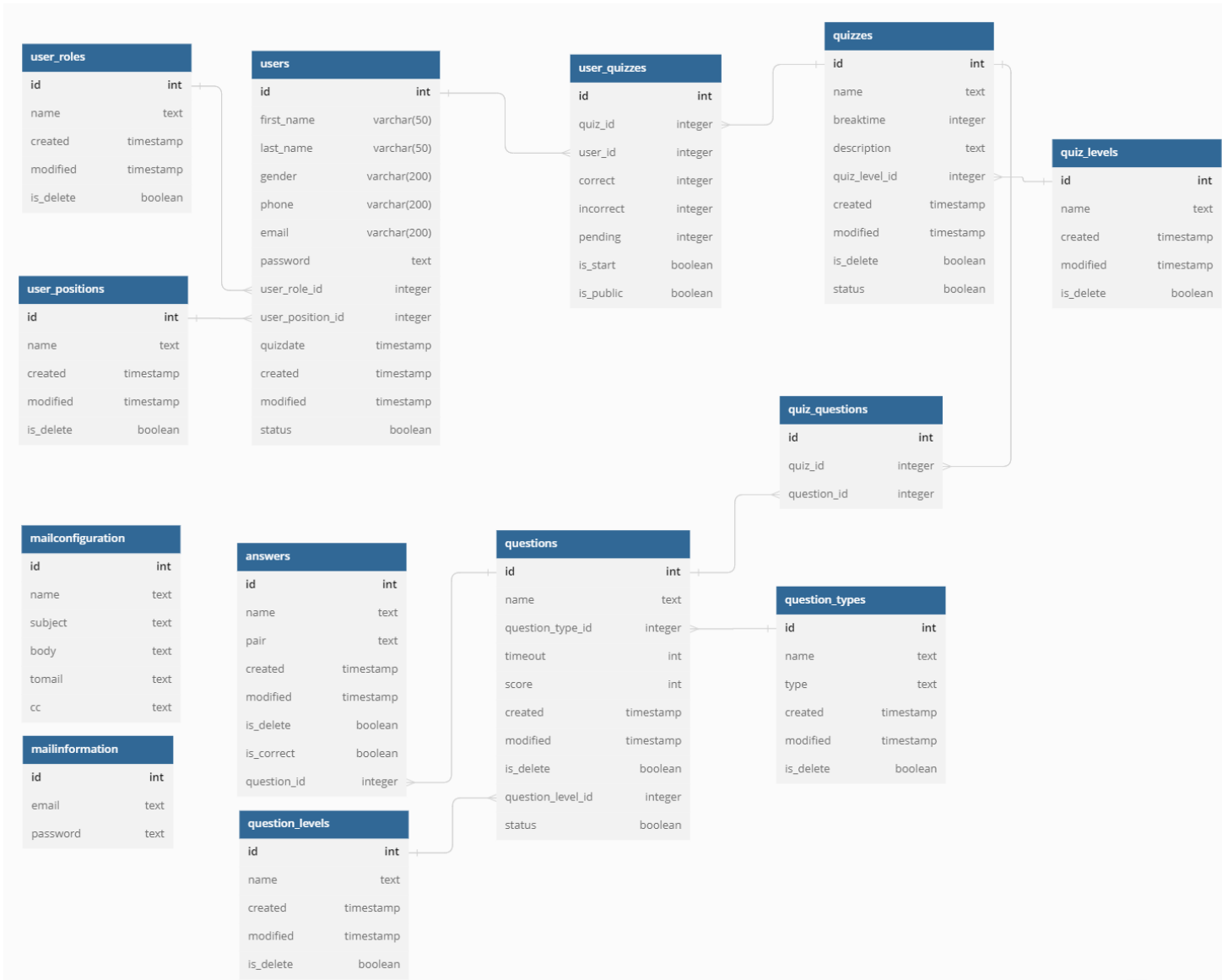
2. ANALYSIS AND DESIGN

2.1 Use Case Diagram



2. ANALYSIS AND DESIGN

2.2 Database Schema



2. ANALYSIS AND DESIGN

2.3 Choice of Technologies

➤ Technologies



➤ Tools



Visual Studio Code

➤ Database



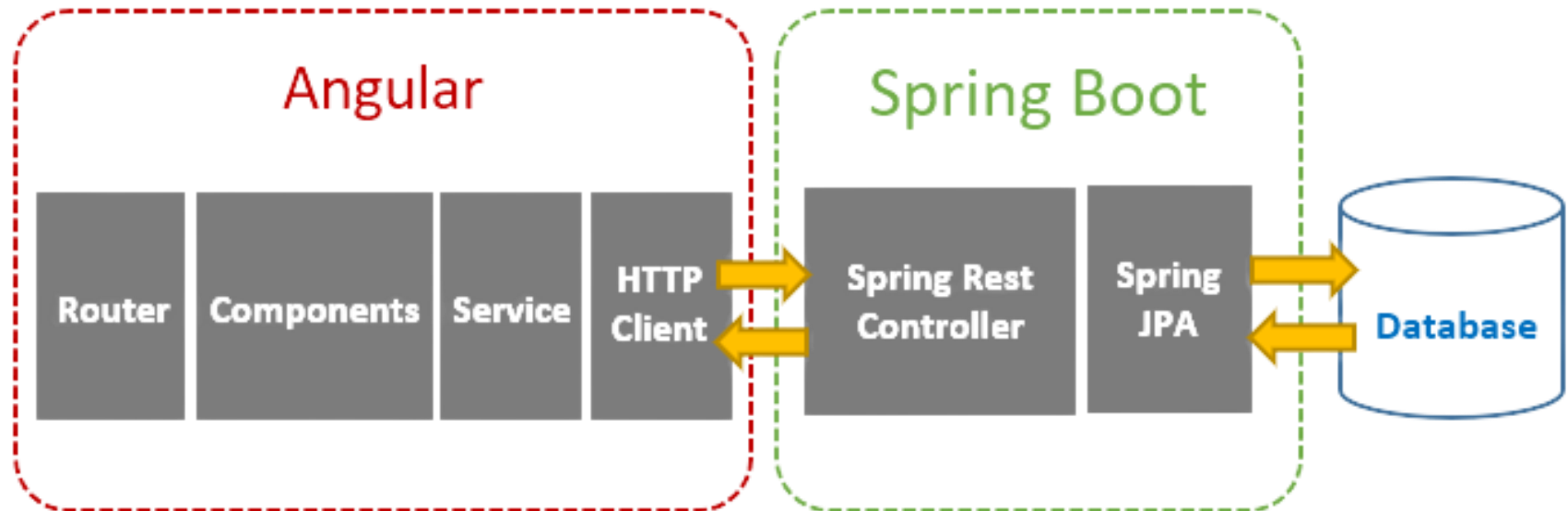
2. ANALYSIS AND DESIGN

2.4 Physical Architecture



2. ANALYSIS AND DESIGN

2.5 Logical Architecture



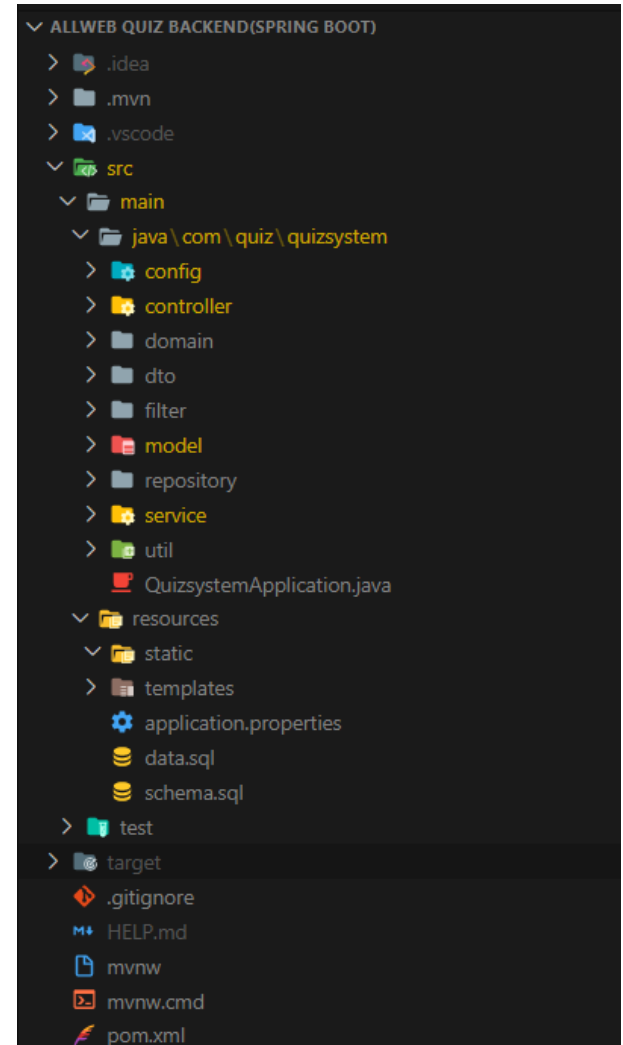


IMPLEMENTATION

3. IMPLEMENTATION

3.1 Project Structure

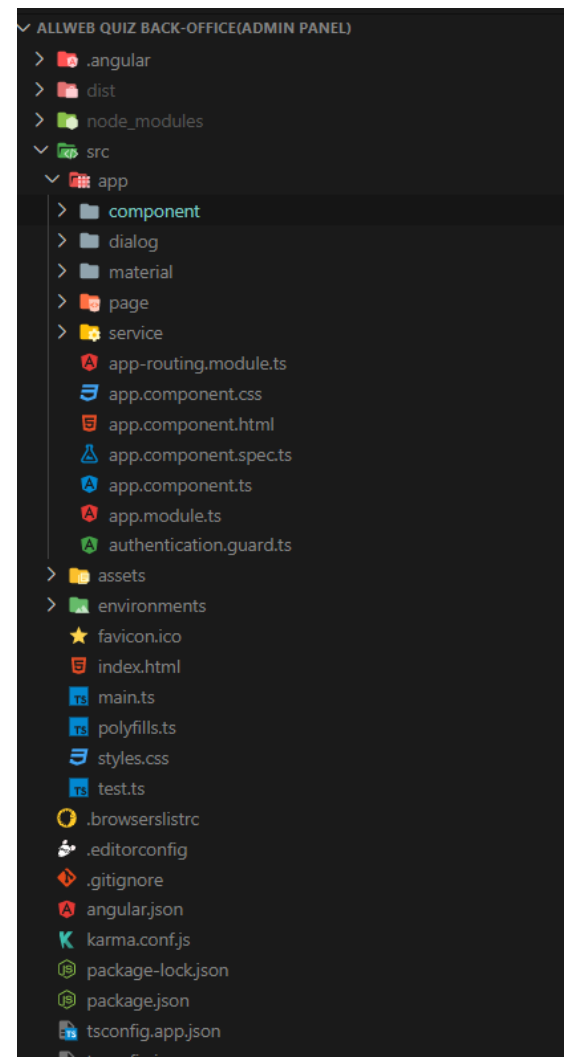
- config: store configurations like mail service
- dto: store data transfer object(request & response)
- repository: keep all repository
- utils: keep feature specifics



3. IMPLEMENTATION

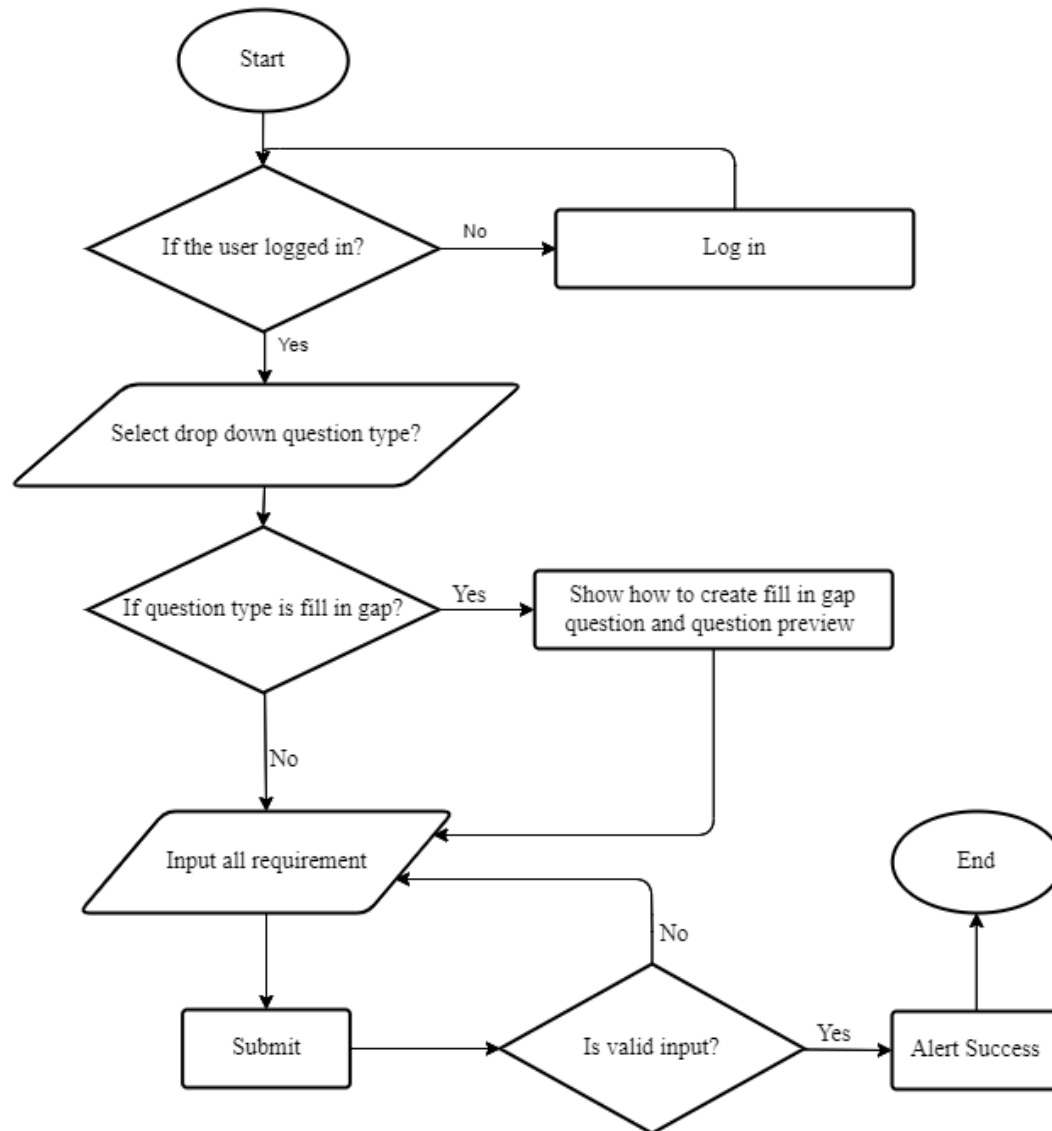
3.1 Project Structure

- component: store component that is re-used multiple time
- assets: store image and third-party Javascript files
- service: store service for communicating with API
- page: store all pages design
- dialog: store dialog of create, update, and delete



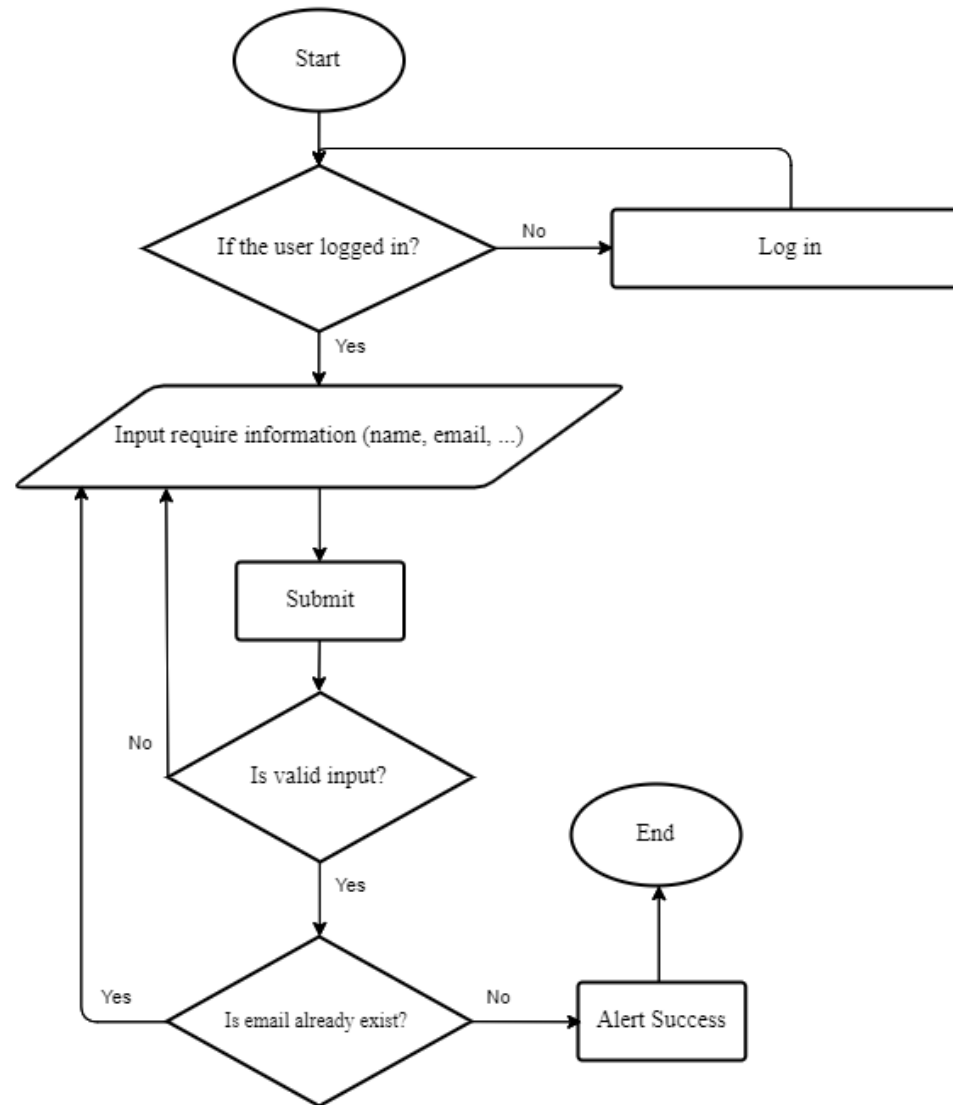
3. IMPLEMENTATION

3.2 Flowchart for create question



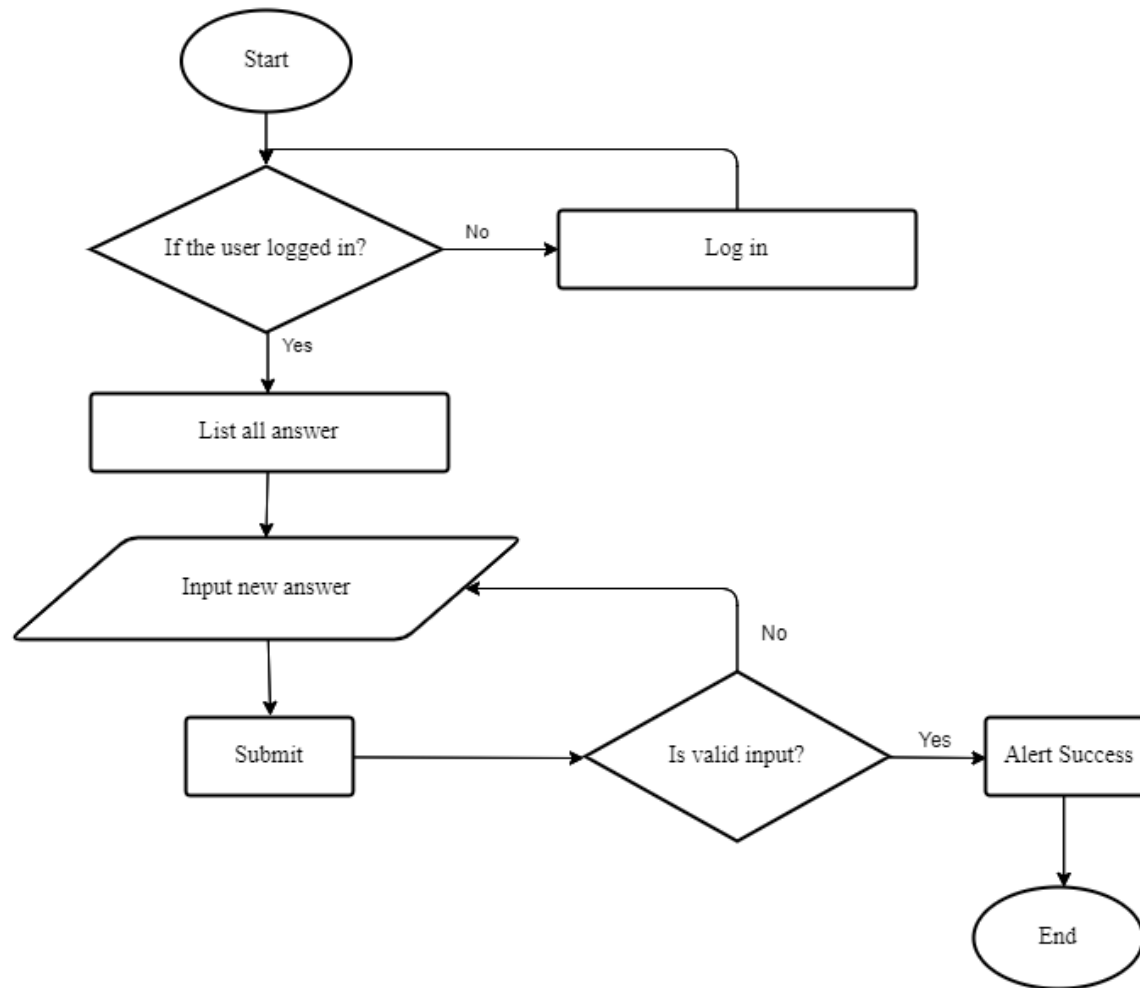
3. IMPLEMENTATION

3.3 Flowchart for create candidate



3. IMPLEMENTATION

3.4 Flowchart for edit multiple answer





CONCLUSION

4. CONCLUSION

Result

Task	Completed	Uncompleted
Login authentication	✓	
Dashboard	✓	
CRUD candidate	✓	
CRUD user	✓	
CRUD quiz	✓	
CRUD question	✓	
CRUD answer	✓	
Assign and remove question	✓	
Assign and remove quiz for user	✓	
CRUD quiz level	✓	
CRUD question type	✓	
Update profile information	✓	
Forgot password and reset password	✓	
Generate report of candidate	✓	
Configuration mail	✓	
Configuration mail template	✓	
Mail sender	✓	
User result		x

4. CONCLUSION

Difficulties

- Dealing with new technology
- Learning project structure
- More requirements in the project

Experiences

- Learn new technology
- Better teamwork
- Project management and process
- Understand environmental work

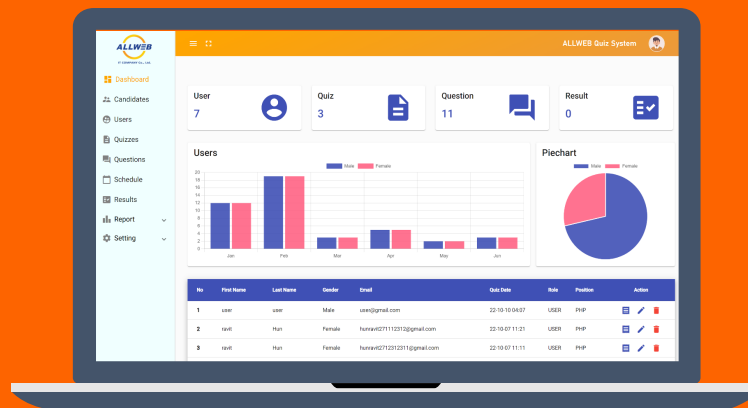
4. CONCLUSION

Perspective

- Improve responsive website
- Improve code structure
- Add new technology to the project(Web socket, Autocorrect code)



DEMONSTRATION





THANK YOU
&
QUESTIONS

REFERENCE

- *Java Programming Language*. (n.d.). Retrieved October 14, 2022, from <https://docs.oracle.com/javase/8/docs/technotes/guides/language/index.html>
- *Spring Boot*. (n.d.). Retrieved October 14, 2022, from <https://spring.io/projects/spring-boot>
- *Introduction to HTML*. (n.d.). Introduction to HTML. Retrieved October 14, 2022, from https://www.w3schools.com/html/html_intro.asp
- *CSS Introduction*. (n.d.). Retrieved October 14, 2022, from https://www.w3schools.com/css/css_intro.asp
- *JavaScript.com*. (n.d.). Retrieved October 14, 2022, from <https://www.javascript.com/>
- *Angular—What is Angular?* (n.d.). Retrieved October 14, 2022, from <https://angular.io/guide/what-is-angular>
- Angular Material, A. C. (n.d.). *Angular Material*. Angular Material. Retrieved October 14, 2022, from <https://material.angular.io/>
- *FullCalendar—JavaScript Event Calendar*. (n.d.). Retrieved October 14, 2022, from <https://fullcalendar.io/>
- PostgreSQL, P. G. D. (2022, October 14). *PostgreSQL*. PostgreSQL. from <https://www.postgresql.org/>
- *GitLab*. (n.d.). Retrieved October 14, 2022, from <https://about.gitlab.com/>
- *IntelliJ IDEA: The Capable & Ergonomic Java IDE by JetBrains*. (n.d.). JetBrains. Retrieved October 14, 2022, from <https://www.jetbrains.com/idea/>
- *Visual Studio Code—Code Editing. Redefined.* (n.d.). Retrieved October 14, 2022, from <https://code.visualstudio.com/>
- *pgAdmin—PostgreSQL Tools*. (n.d.). Retrieved October 14, 2022, from <https://www.pgadmin.org/>
- *Postman API Platform | Sign Up for Free*. (n.d.). Postman. Retrieved October 14, 2022, from <https://www.postman.com/>
- *Spring Initializr*. (n.d.). Spring Initializr. Retrieved October 14, 2022, from <https://start.spring.io>