



Institute of Technology of Cambodia

Department of Information and Communication Engineering

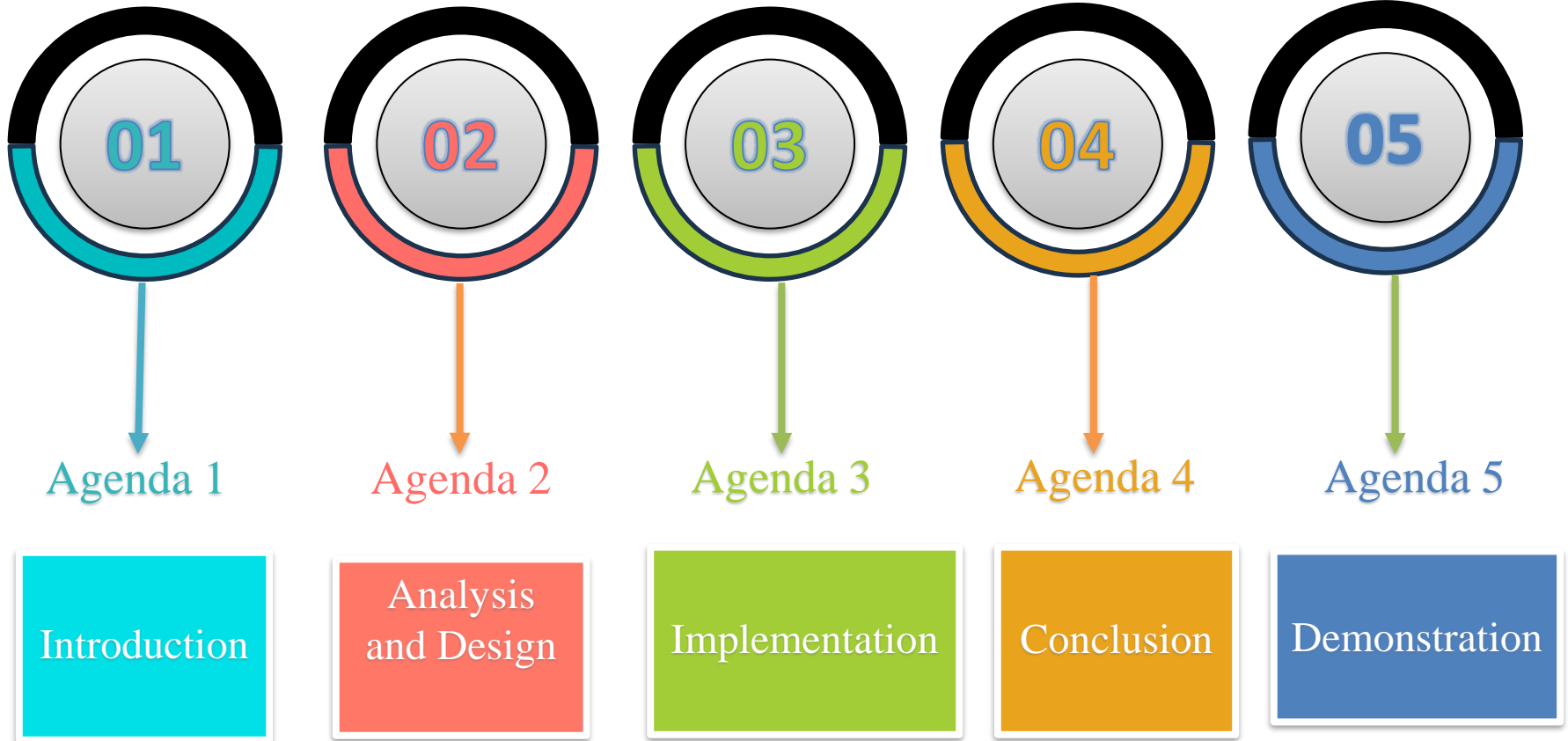


Securing Wireless Access Management System

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Company Advisor	:	Mr. NOP Phearum
Student	:	VEN Thon
Duration	:	08 August – 07 October, 2023

Academic Year 2022-2023

AGENDA





Agenda 1

1. Introduction

General Presentation

- The internship was at the **Institute of Technology of Cambodia**
- The internship starts from 08 August – 07 October 2023



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About Institute of Technology of Cambodia

The Institute of Technology of Cambodia (ITC) is a Cambodian educational institution that provides technology and engineering education. It provides undergraduate and graduate degrees in engineering, science, and technology. The institution's mission is to advance technical education and research while also helping to enhance the country's infrastructure and industry.

Team Structure

Project Manager



Mr. NOP Phearum



VEN Thon
Mockup UI and
front-end



SUN Vysing
Backend and
deploys

What is Securing Wireless Access Management System?

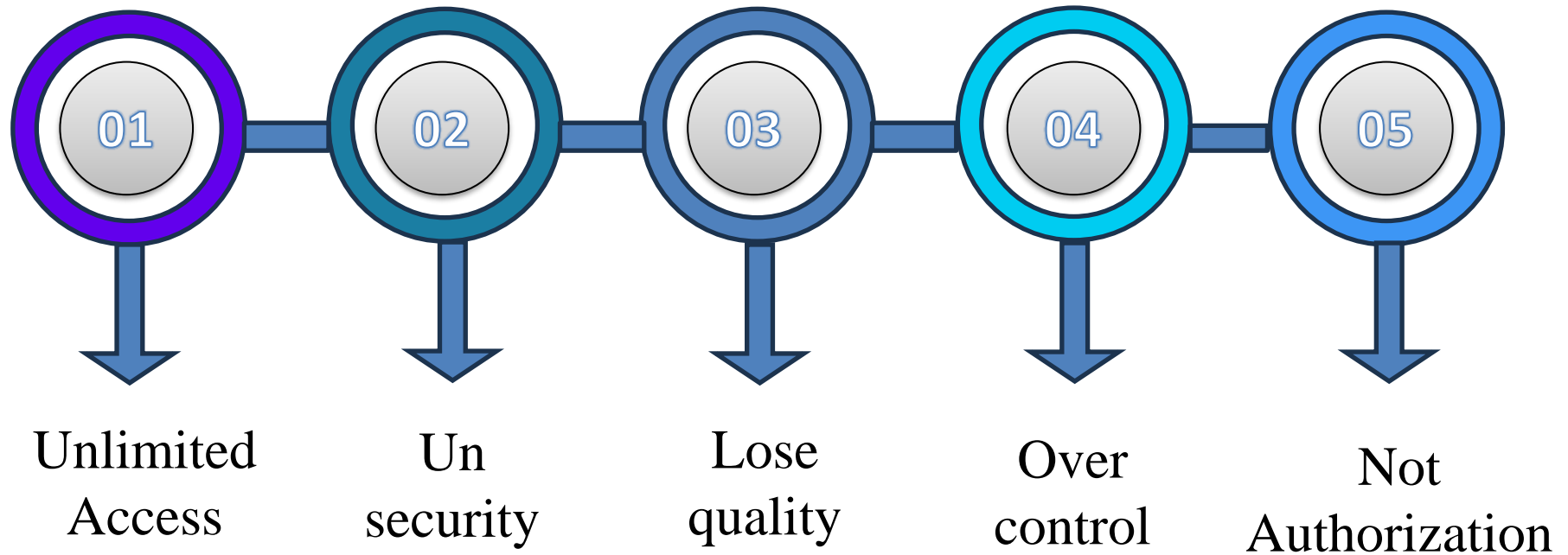


Securing Wireless Access Management System, is the system that was to provide such as:

- ☐ Manage user
- ☐ Manage device on user
- ☐ Crud operation on user
- ☐ Control information on user

Why should we create Securing Wireless Access Management System?

❑ Problem Overview



Objective

01

User Registration

02

Automated Device Connection

03

Unauthorized Use Prevention

04

Administrative Control

05

Device Usage



Agenda 2

2. Analysis and Design

Functionalities for Each Roles



Admin Roles

- ☐ Manage user
- ☐ Manage many user by file excel
- ☐ Crud operation on user
(Create, Read, Update, Delete)
- ☐ Manage device user
- ☐ Search Information user
- ☐ Control Information user



User Roles

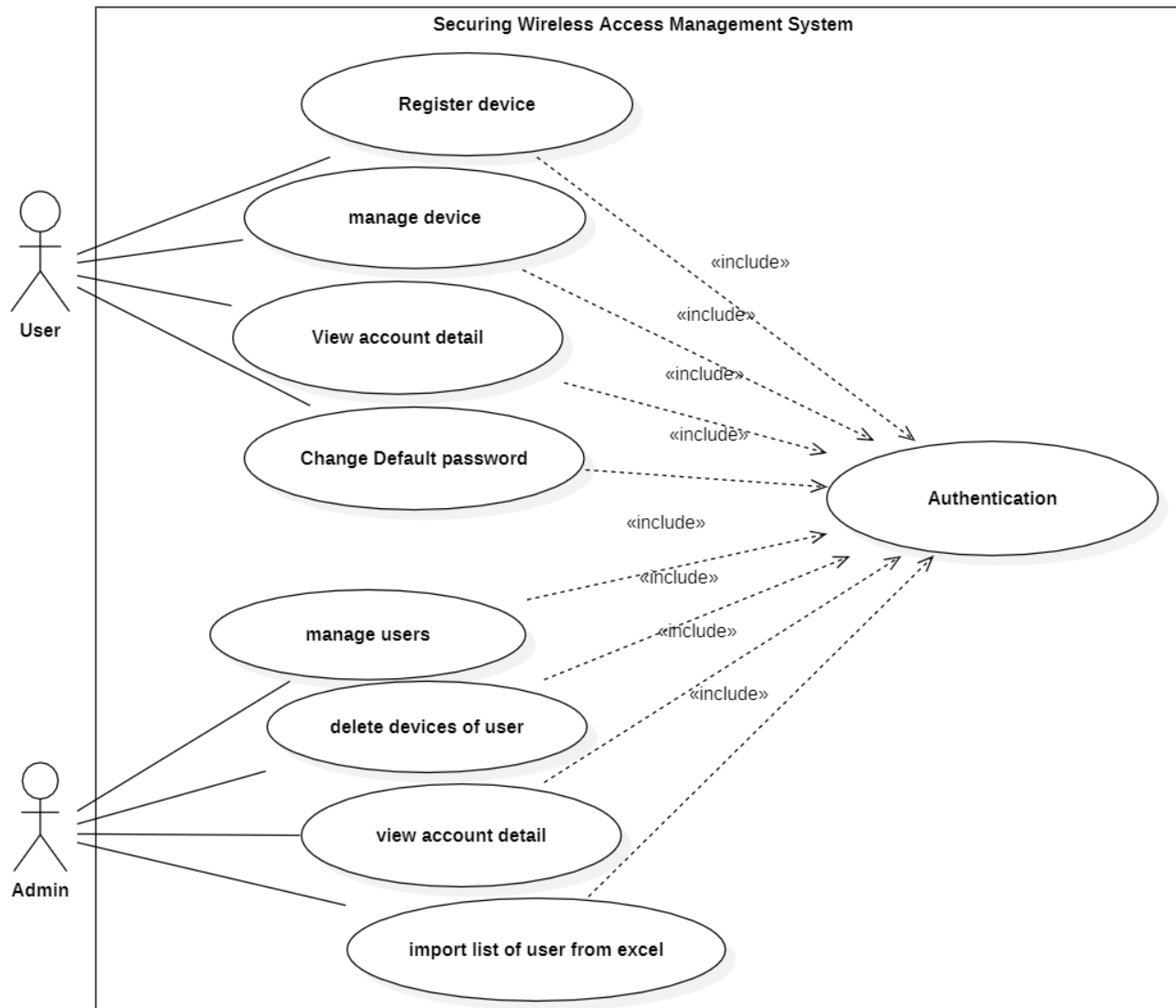
- ☐ Login
- ☐ Change password
- ☐ Register device
- ☐ Delete device
- ☐ Edit device
- ☐ Number of register device

Planning

For the development, testing, and documentation as well I had to spend time 8 weeks to develop the project that we spend time from first week to eight weeks.

Tasks	Weeks							
	1	2	3	4	5	6	7	8
Learn Technology								
Mockup UI								
Design Database								
Analyze Requirement								
Development								
Testing								
Report								

Use Case diagram



Chooses Technologies

Languages



HTML



CSS



JavaScript

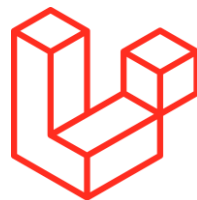


PHP

Frameworks



Vue JS



Laravel

Library



TailwindCSS



Flowbite

Technologies



Tools



Visual Studio Code



Postman



GitHub



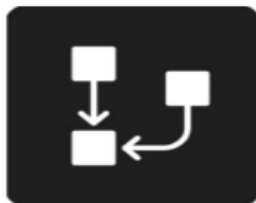
draw.io



GitBash



Figma

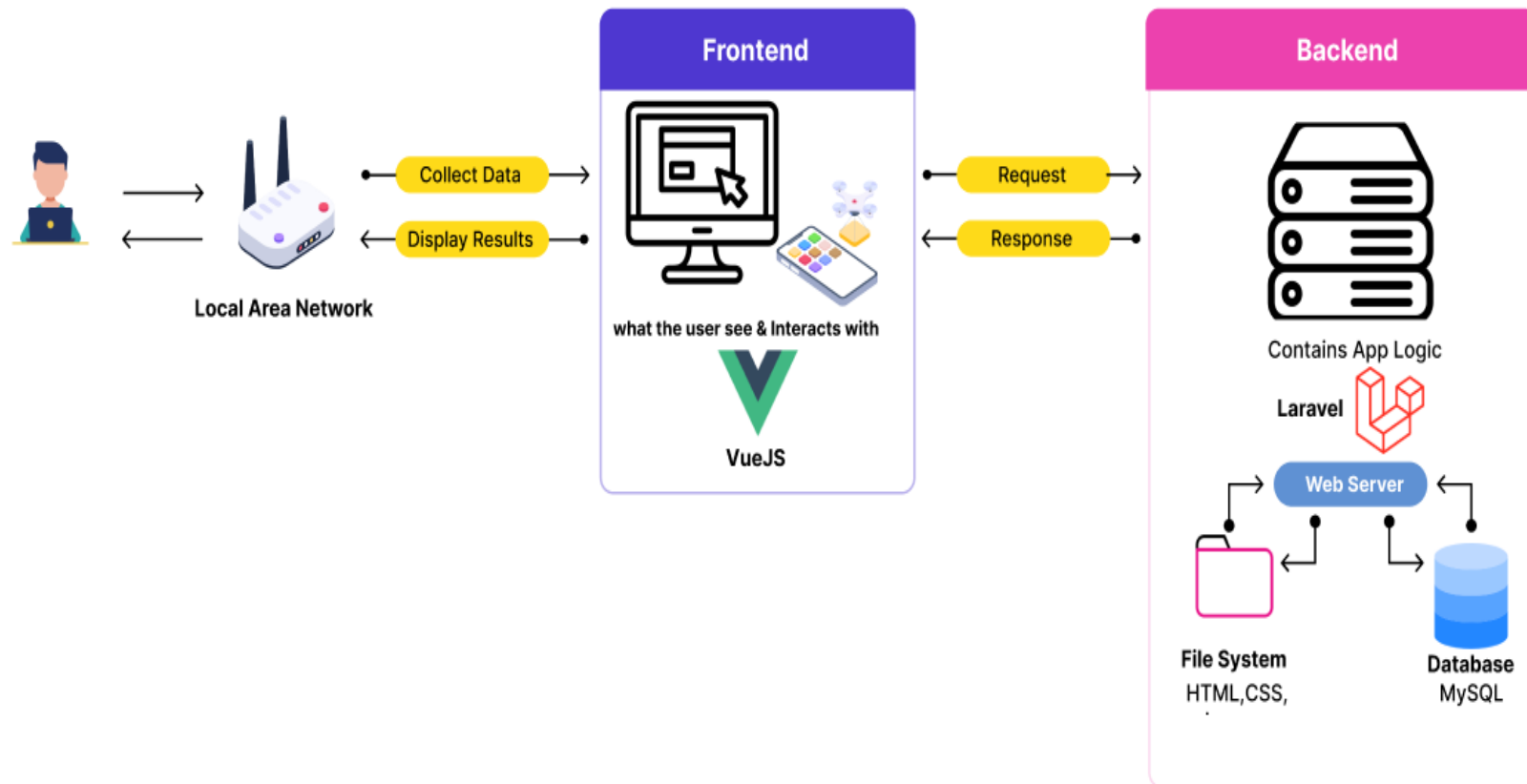


DrawSQL

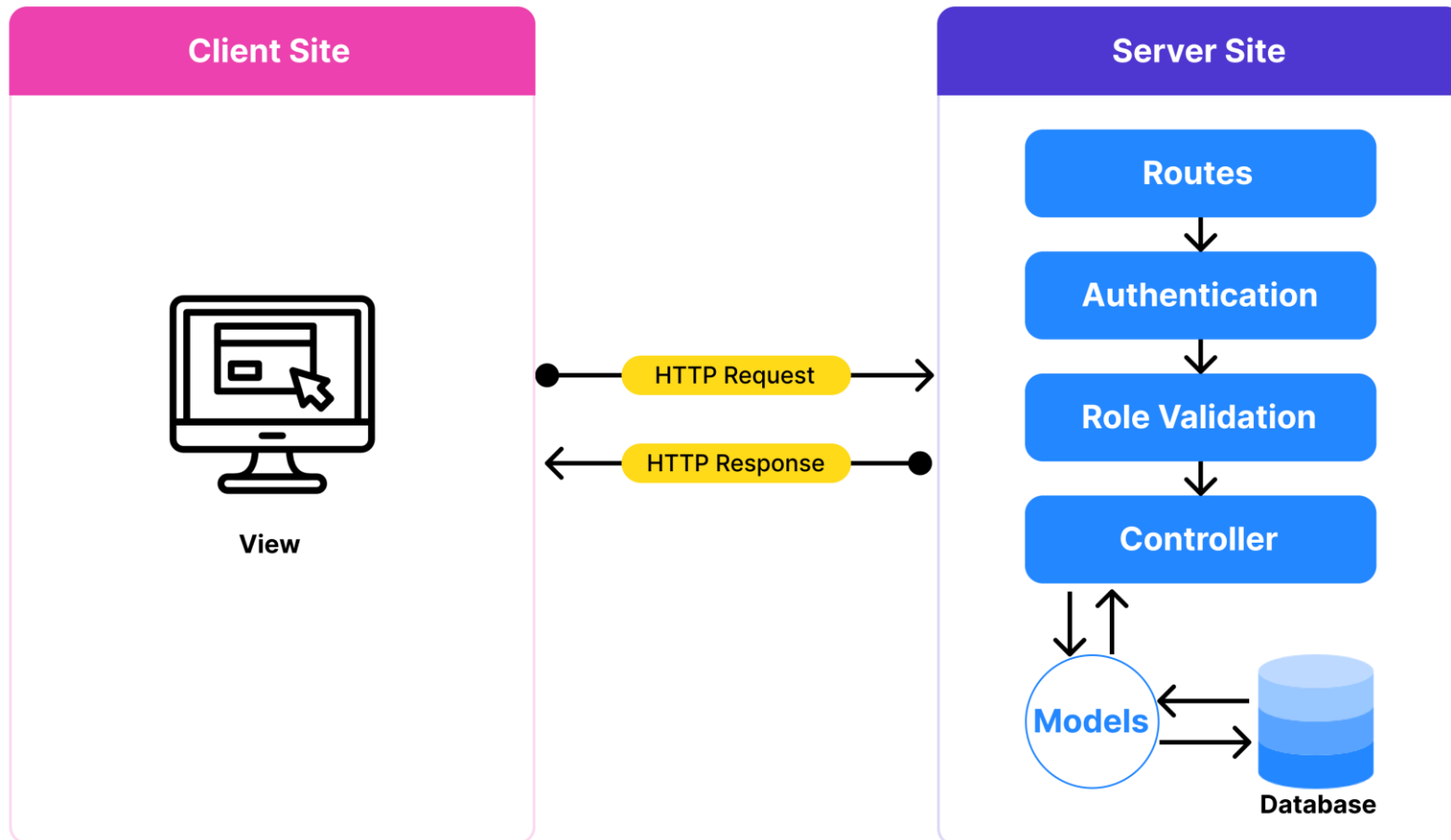


StarUML

Physical Architecture



Logical Architecture

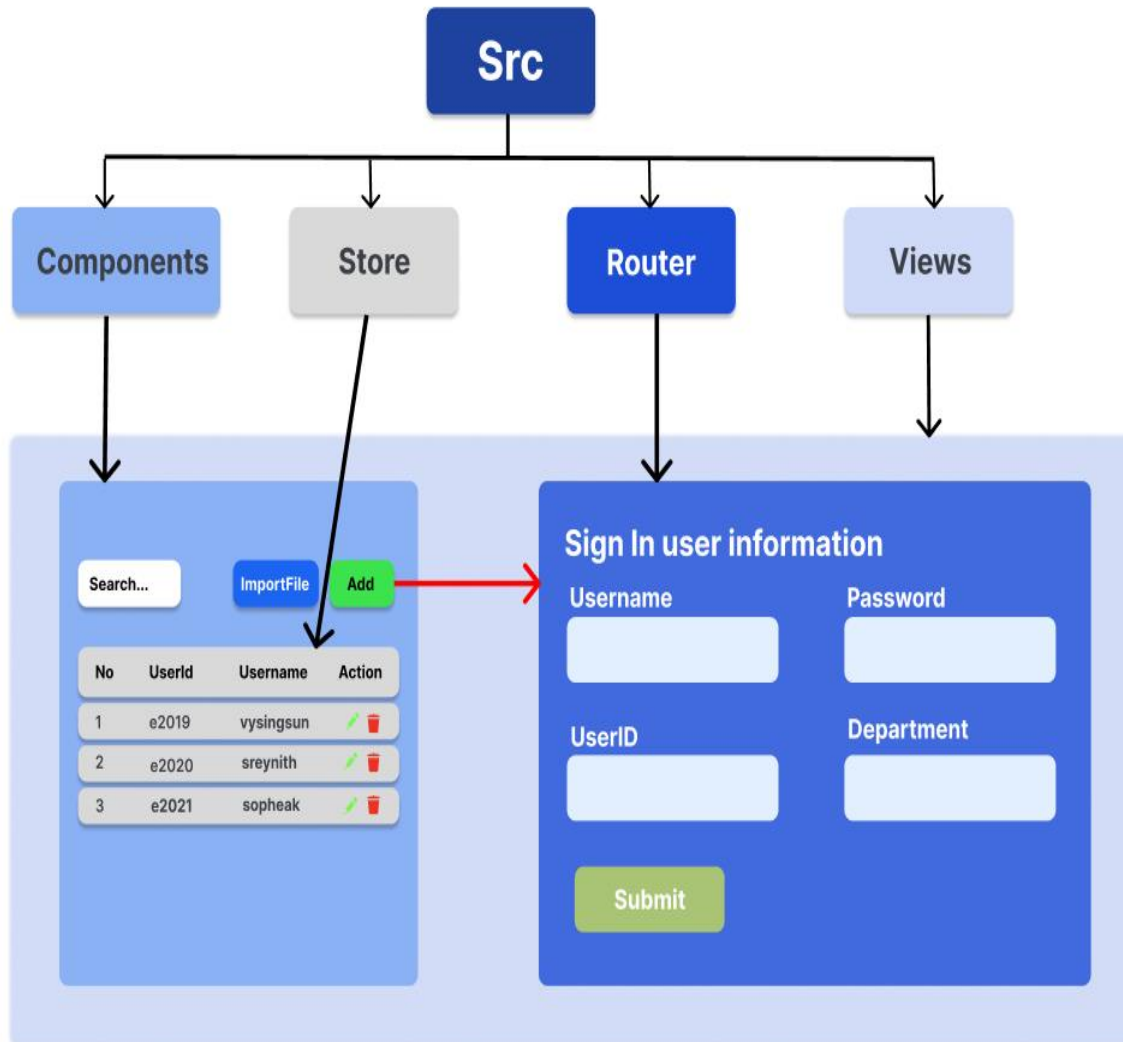




Agenda 3

3. Implementation

Frontend Project Structure

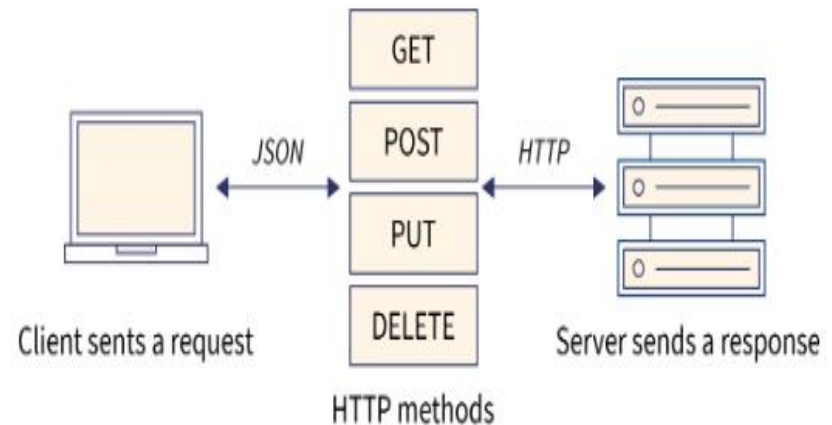


```
WI-FI-MANAGEMENT-SYSTEM
├── .vscode
├── node_modules
├── public
├── src
│   ├── assets
│   ├── components
│   ├── composables
│   ├── router
│   ├── store
│   └── views
├── App.vue
├── main.js
├── .gitignore
├── index.html
├── MongoDBCompass.Ink
├── package-lock.json
├── package.json
├── postcss.config.js
├── README.md
├── tailwind.config.js
└── vite.config.js
```

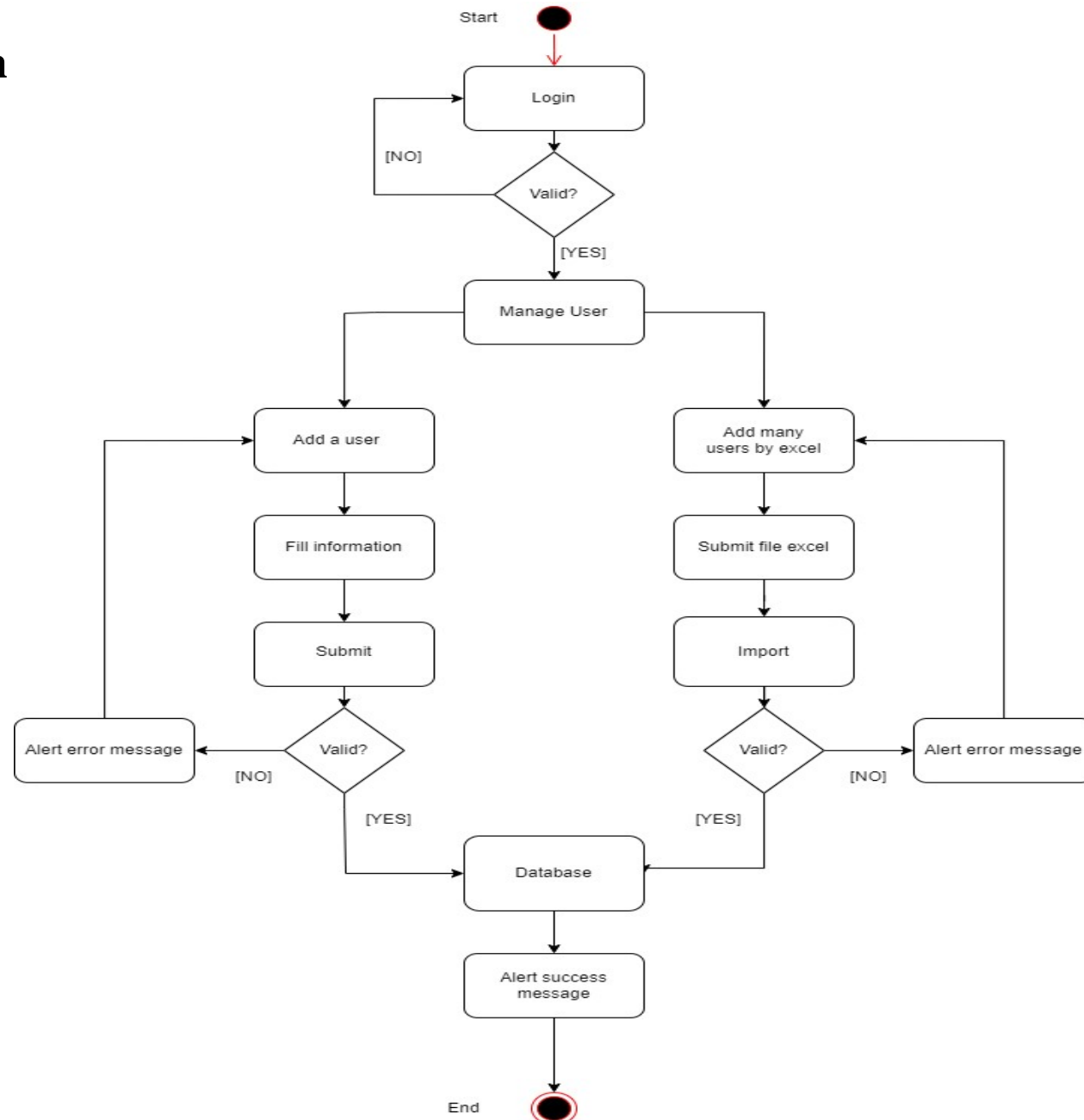
Connection Backend to Frontend

Axios is a popular JavaScript library used for to fetch data from APIs and update the user interface dynamically. It supports various features such as request and response interception, automatic request cancellation, and the ability to send HTTP requests with different methods (GET, POST, PUT, DELETE).

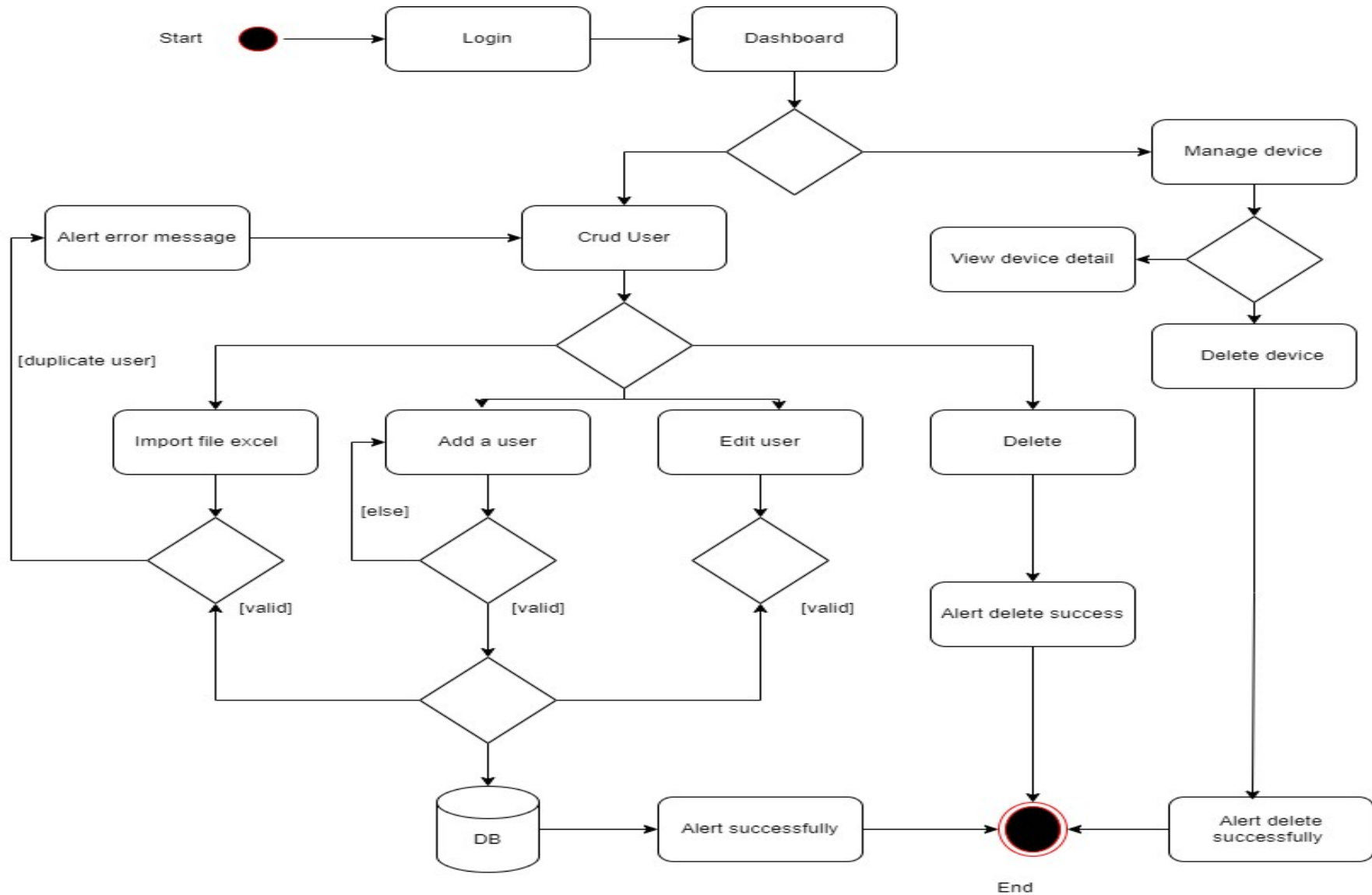
- ❑ POST: Its used for create new resource
- ❑ GET: Its used for read or display data
- ❑ PUT: Its used for update existing data
- ❑ Delete: Its used for delete existing data form database.



Activity diagram manage user



Activity Admin Dashboard





Agenda 4

4. Conclusion

Result

□ Admin

Role of Admin		
Modules	Functionalities	Status
Authentication	Login	Completed
	Logout	Completed
Menu	Create user	Completed
	View user information	Completed
	Update user information	Completed
	Delete user	Completed
	Import data by file excel	Completed
	Search user information	Completed
	Show device user	Completed
	Get mac address	Completed

Result

☐ User

Role of user		
Modules	Functionalities	Status
Authentication	Login	Completed
	Logout	Completed
	Change password	Completed
Menu	View information user	Completed
	Device detail	Completed
	Delete device	Completed
	Register device	Completed

☐ Integrate with network

Modules	Functionalities	Status
Integrate	Use radius server	In progress

Difficulties

❑ Technical

- Short time to build the system
- Professional code development
- Database design and analysis
- User interface design
- Project management
- Learn technologies



❑ Non-technical

- Internet connection
- Environment



❑ Experiences

- Learn about technologies
- Understand more about project management
- Estimate tasks and time
- Adapt to a new environment
- Understand about project methodology
- Works teams and communicate
- Database management

❑ Perspectives

- Improve UI
- Responsive
- Improve performance
- Add more feature and function





Agenda 5

5. Demonstration



**Thank you !
For your attention**

Q & A