



UNIVERSITY OF BUEA
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER ENGINEERING

DESIGN AND IMPLEMENTATION OF AN
EMPLOYEE ATTENDANCE MANAGEMENT SYSTEM

Presented By

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MATRICULE: FE21A300
OPTION: SOFTWARE ENGINEERING



OUTLINE



1. INTRODUCTION

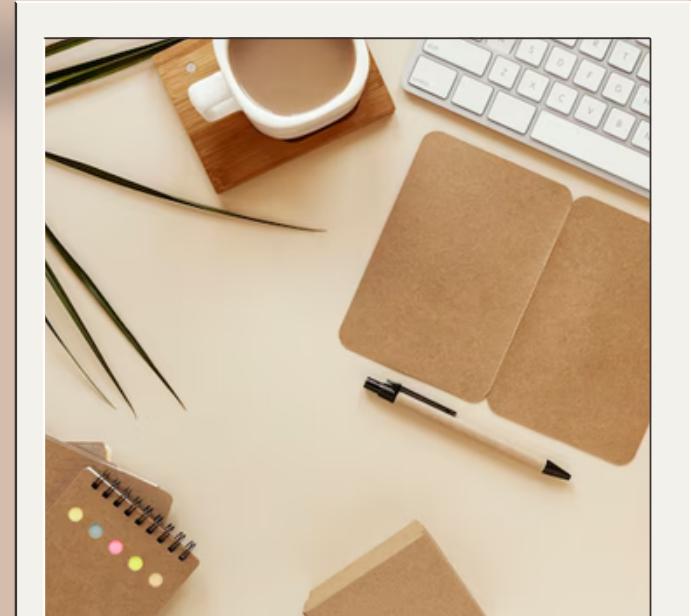
2. INTERNSHIP ACTIVITIES

3. EXTRA-CURRICULAR ACTIVITIES

4. DIFFICULTIES AND CHALLENGES

5. CONCLUSION

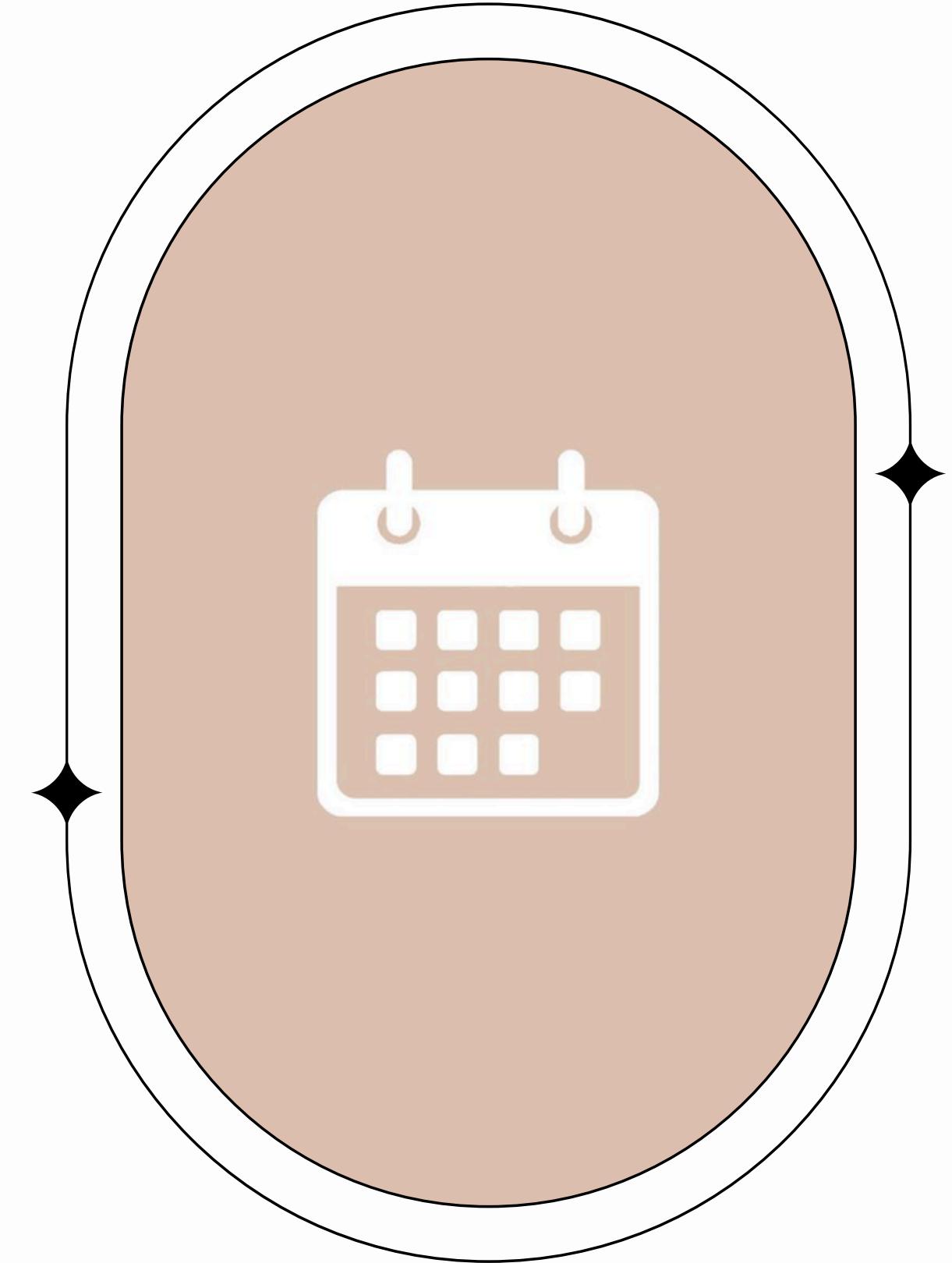
6. REFERENCES



1. INTRODUCTION

Goals of My Internship Journey

1. Applying theoretical knowledge from my coursework at the Faculty of Engineering and Technology
2. Gaining hands-on experience and building my network
3. Learning new technologies
4. Gaining industry insights
5. Enhancing my problem-solving and critical-thinking skills



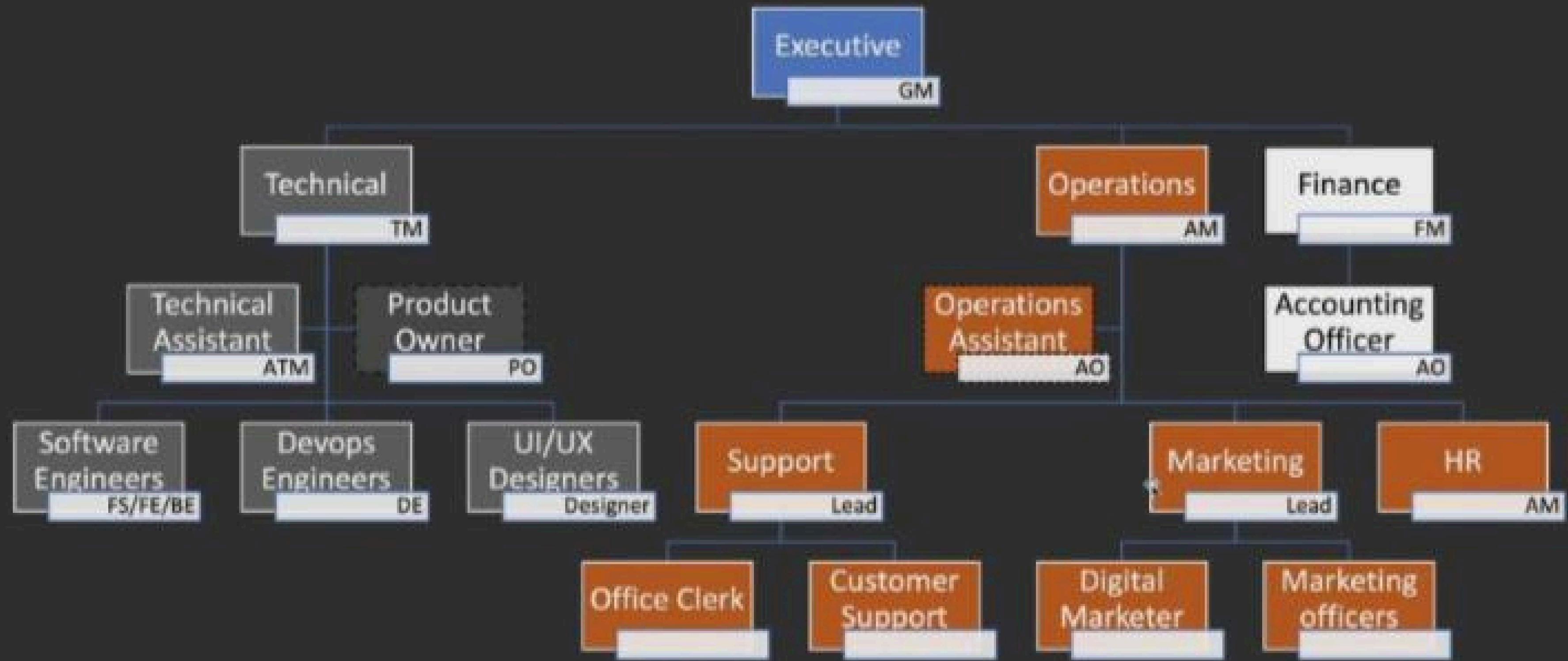
1. INTRODUCTION (CONT.)

Presentation Of The Company: GO-GROUPS LIMITED

- Go-Groups LTD is a software company based in Buea, Cameroon envisioned to advance the use of computer technology in the face of scarce resources with the motto “Be on the GO”.
- It was founded in 2012 and provides Software as a Service (SaaS).
- Go-Groups Ltd has built on applications in different sectors such as Go-Student, GoJobs, GoWaka, and couple of others.



GO-GROUPS LTD'S ORGANISATIONAL CHART

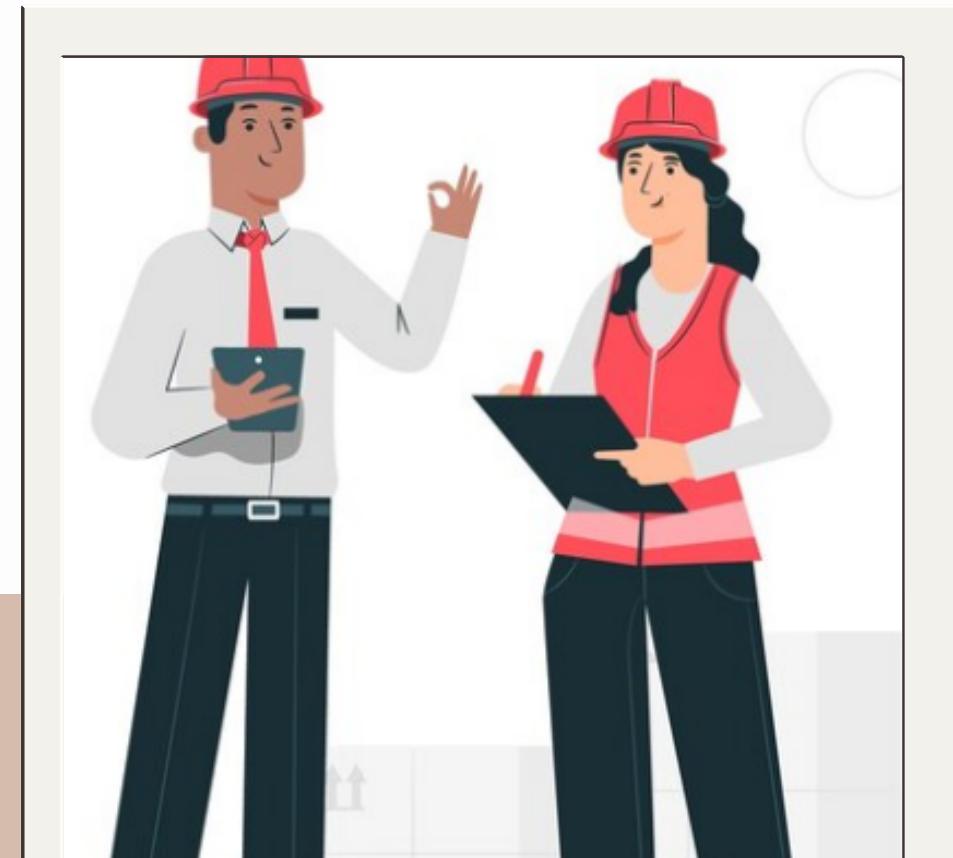


INTERNS

2. INTERNSHIP ACTIVITIES

Professional Supervisors

- My technical supervisor Engr. Mantoh Nasah and Engr. Cyprian Tingiweh are graduates of the University of Buea, played a vital role in my internship.
- Their software development expertise strong work ethic and dedication enabled them to provide comprehensive guidance, mentor me effectively, and ensure my successful learning experience.

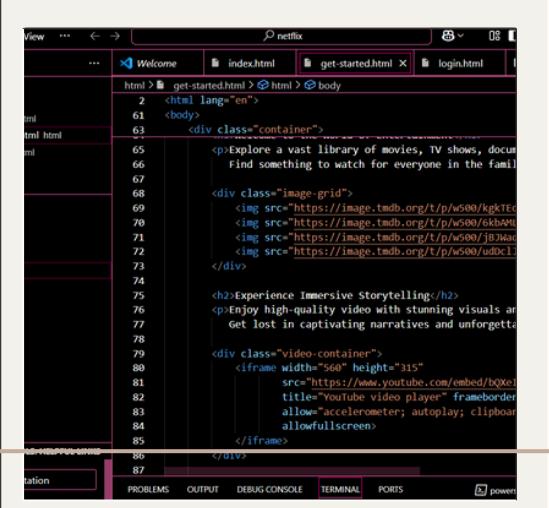


Industrial Supervisors

2. INTERNSHIP ACTIVITIES (CONT.)

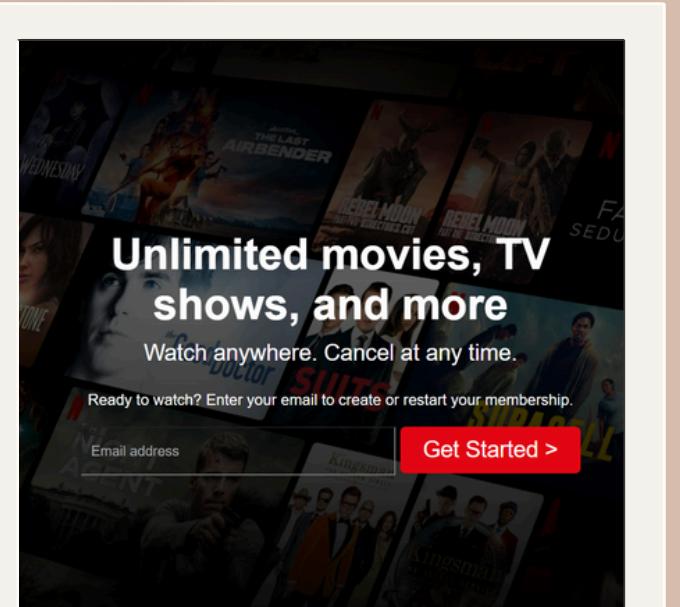
First Day and First Week Experience

My internship began with an orientation period where I met the team, familiarized myself with the company's environment, and was given a task to replicate the Netflix landing page using HTML and CSS. This initial experience not only honed my technical skills but also provided valuable insights into professional standards and expectations. The introduction to the team, technologies, and project requirements fostered a strong foundation for my internship journey, enabling me to understand my responsibilities and contribute effectively to the team's goals.

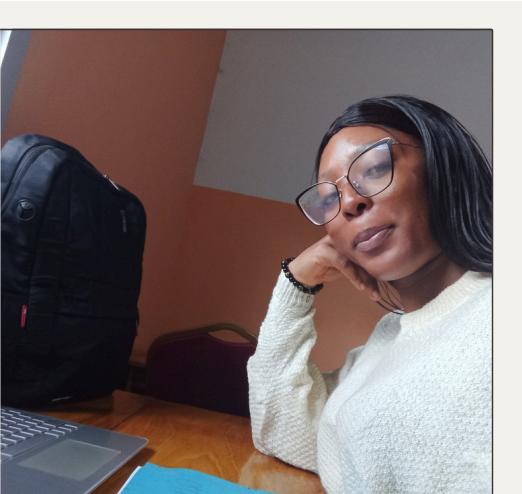


A screenshot of a code editor (VS Code) displaying the HTML and CSS code for a Netflix landing page. The code includes sections for movie recommendations, a video player, and user reviews. The code is well-structured with comments explaining the purpose of each section.

```
<html>
  <head>
    <title>netflix</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link href="https://fonts.googleapis.com/css2?family=Open+Sans:wght@400;700&display=swap" rel="stylesheet">
    <link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">
    <link href="https://cdn.jsdelivr.net/npm/@material-ui/core@4.11.3/dist/material-ui.min.css" rel="stylesheet">
    <link href="https://cdn.jsdelivr.net/npm/@material-ui/icons@4.11.3/iconfont/material-icons.css" rel="stylesheet">
    <link href="https://cdn.jsdelivr.net/npm/@material-ui/core@4.11.3/dist/material-ui.min.css" rel="stylesheet">
    <link href="https://cdn.jsdelivr.net/npm/@material-ui/icons@4.11.3/iconfont/material-icons.css" rel="stylesheet">
  </head>
  <body>
    <div class="container">
      <p>Explore a vast library of movies, TV shows, documentaries, and more. Find something to watch for everyone in the family.</p>
      <div class="image-grid">
        
        
        
        
      </div>
      <h2>Experience Immersive Storytelling</h2>
      <p>Enjoy high-quality video with stunning visuals and sound. Get lost in captivating narratives and unforgettable moments.</p>
      <div class="video-container">
        <iframe width="560" height="315" src="https://www.youtube.com/embed/bxXe<...>" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>
      </div>
    </div>
  </body>
</html>
```



Week 1



Day 1

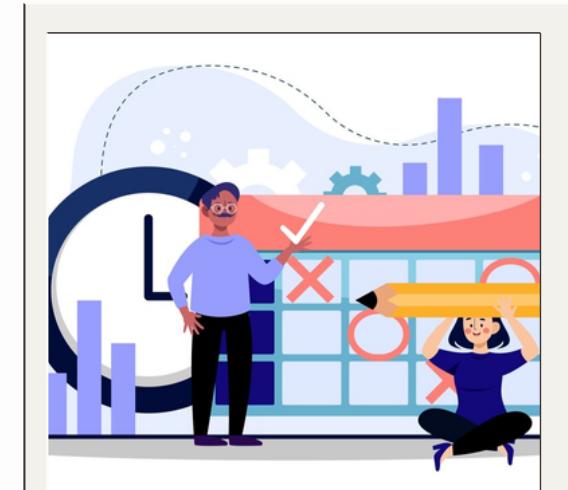
2. INTERNSHIP ACTIVITIES (CONT.)

What's the problem?

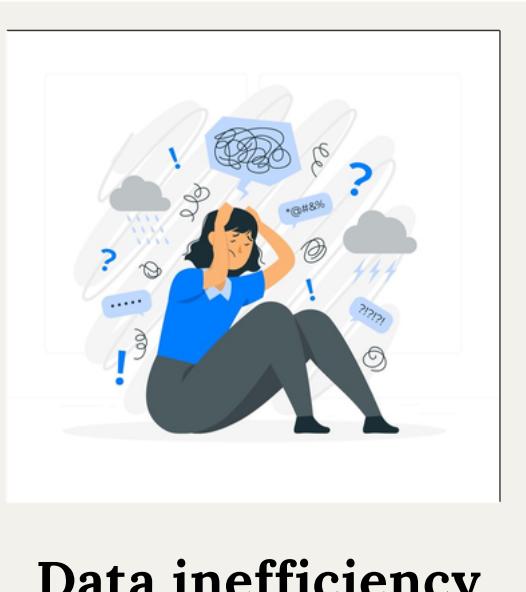
INTERNSHIP PROJECT

Problem Statement

- Before the implementation of a secured Employee Attendance Management System, Go-Groups Ltd faced numerous obstacles in managing employee attendance.
- Manual processes were inefficient, error-prone, and hindered data analysis.
- The lack of a centralized system resulted in fragmented data, which made Human Resource management quite difficult.



Prone to errors ✎



Data inefficiency

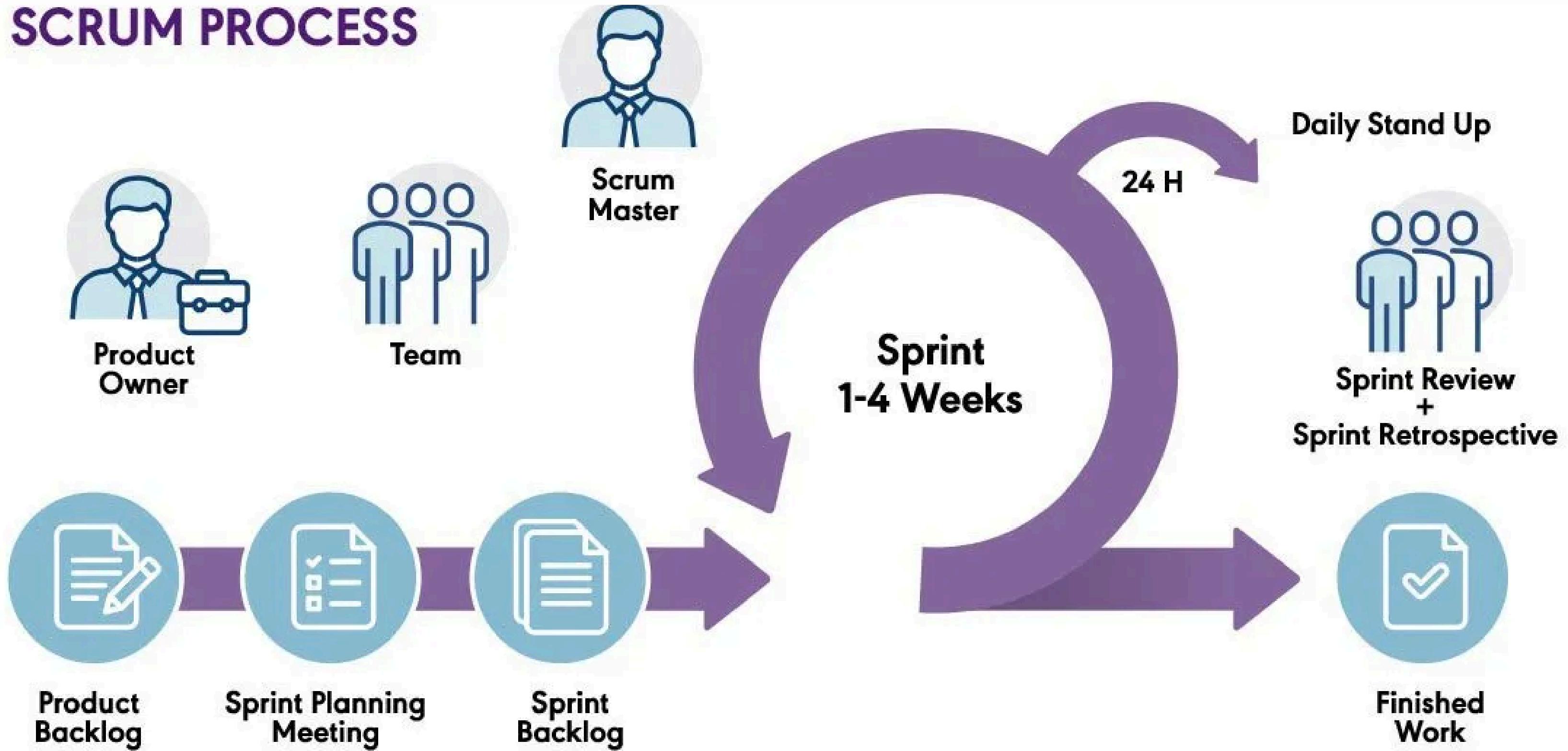


Exhausting 🤪

2. INTERNSHIP ACTIVITIES (CONT.)

Methodology

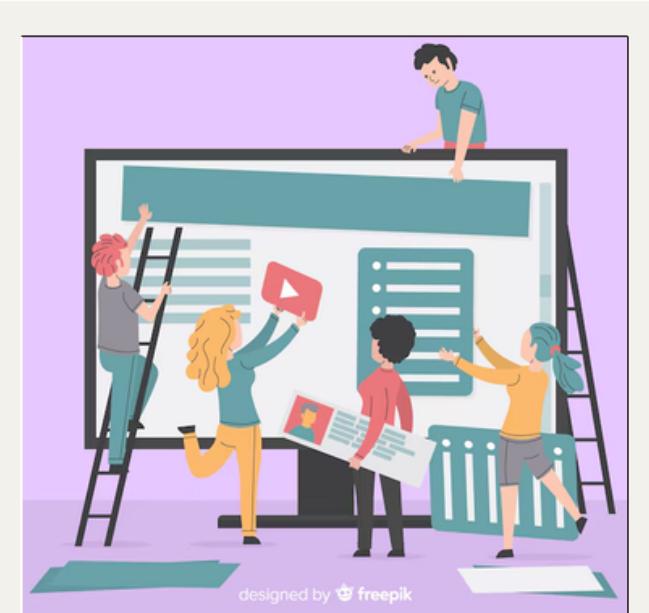
SCRUM PROCESS



2. INTERNSHIP ACTIVITIES (CONT.)

Analysis And Design Phase

- The Employee Attendance Management System (EMS) leverages a three-tier architecture with Angular, Spring Boot, and MySQL, designed for modularity, scalability, and maintainability.
- The system incorporates key entities like User, Attendance, Department, and Roles, with its development guided by rigorous analysis, including requirement gathering, use case analysis, and data flow diagrams, to ensure alignment with organizational needs.

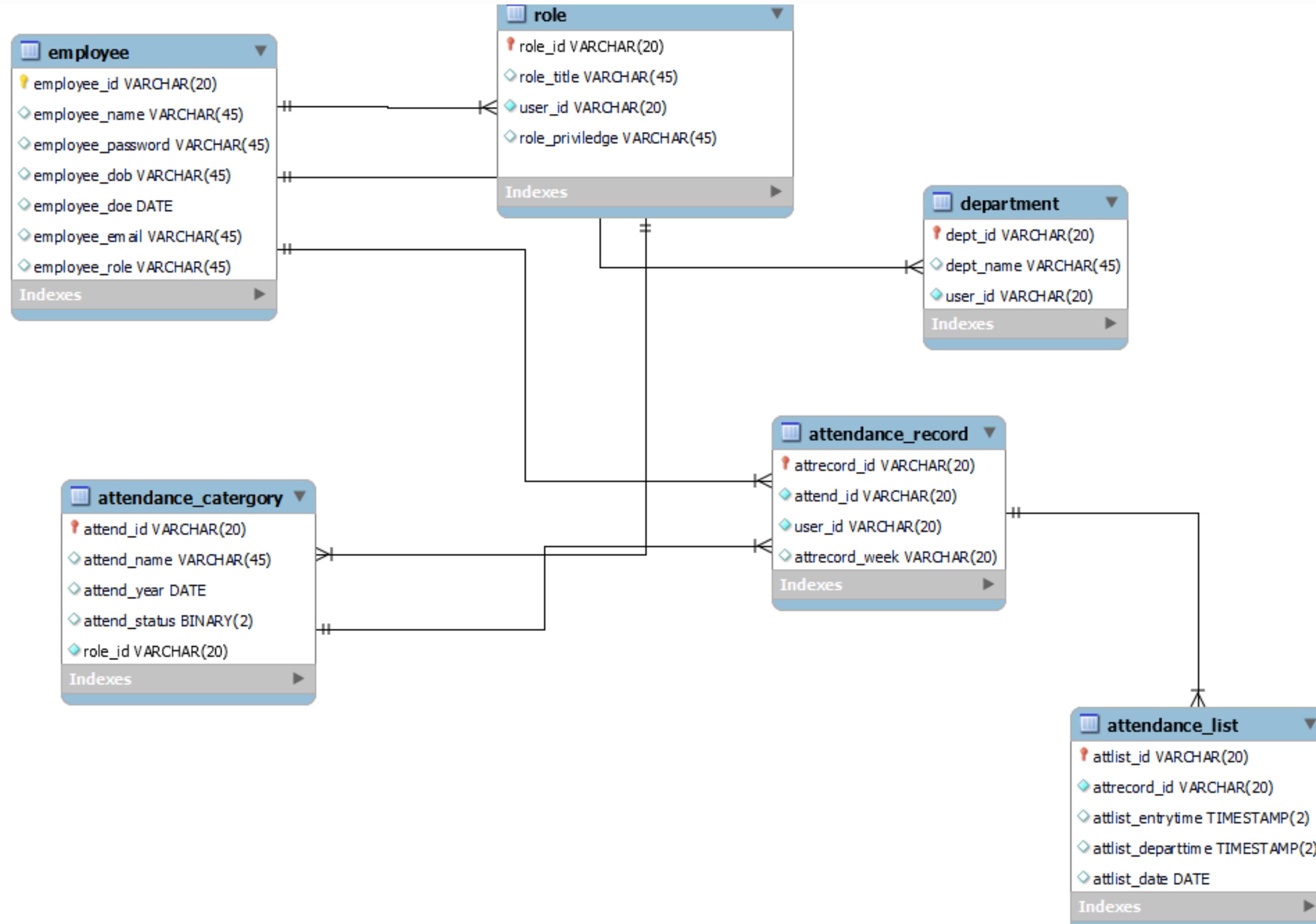


Design !!

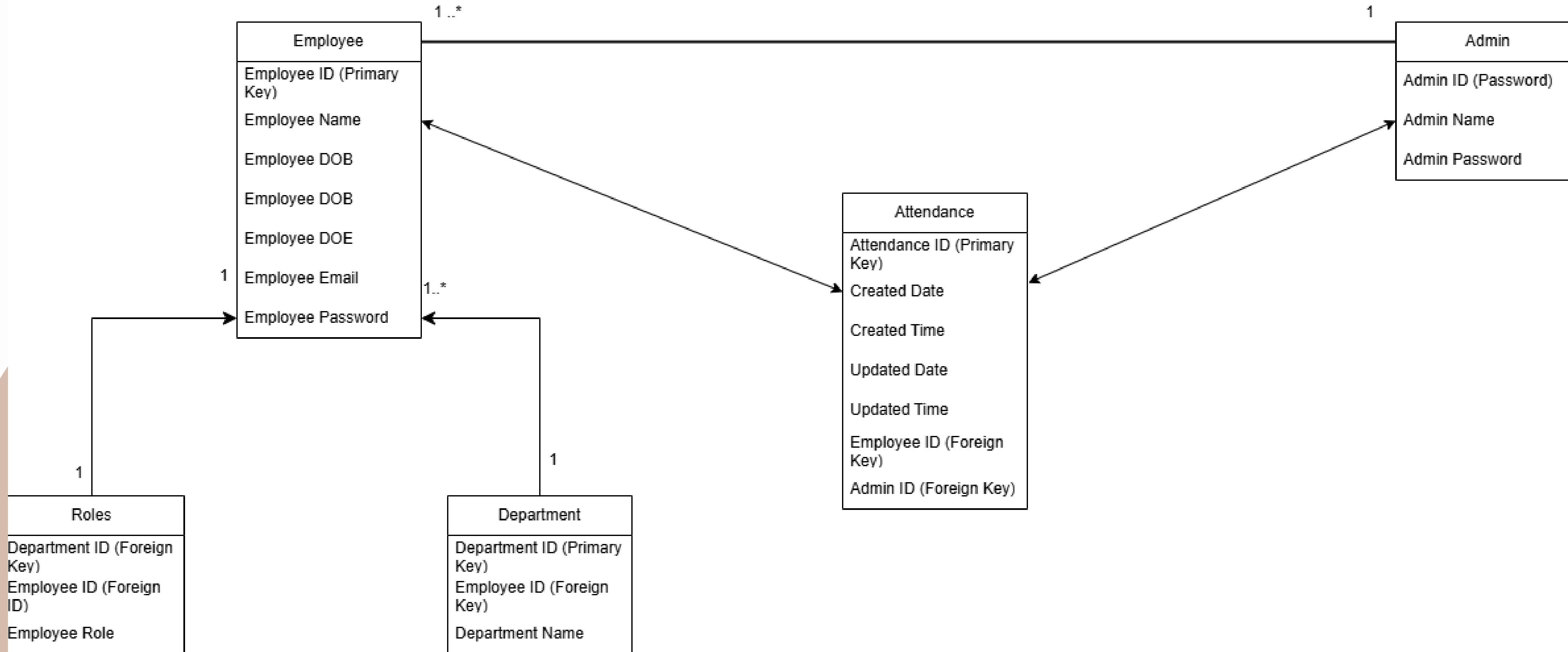
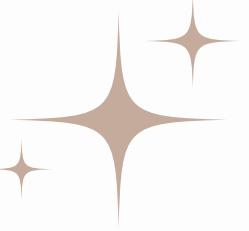


Analysis !!

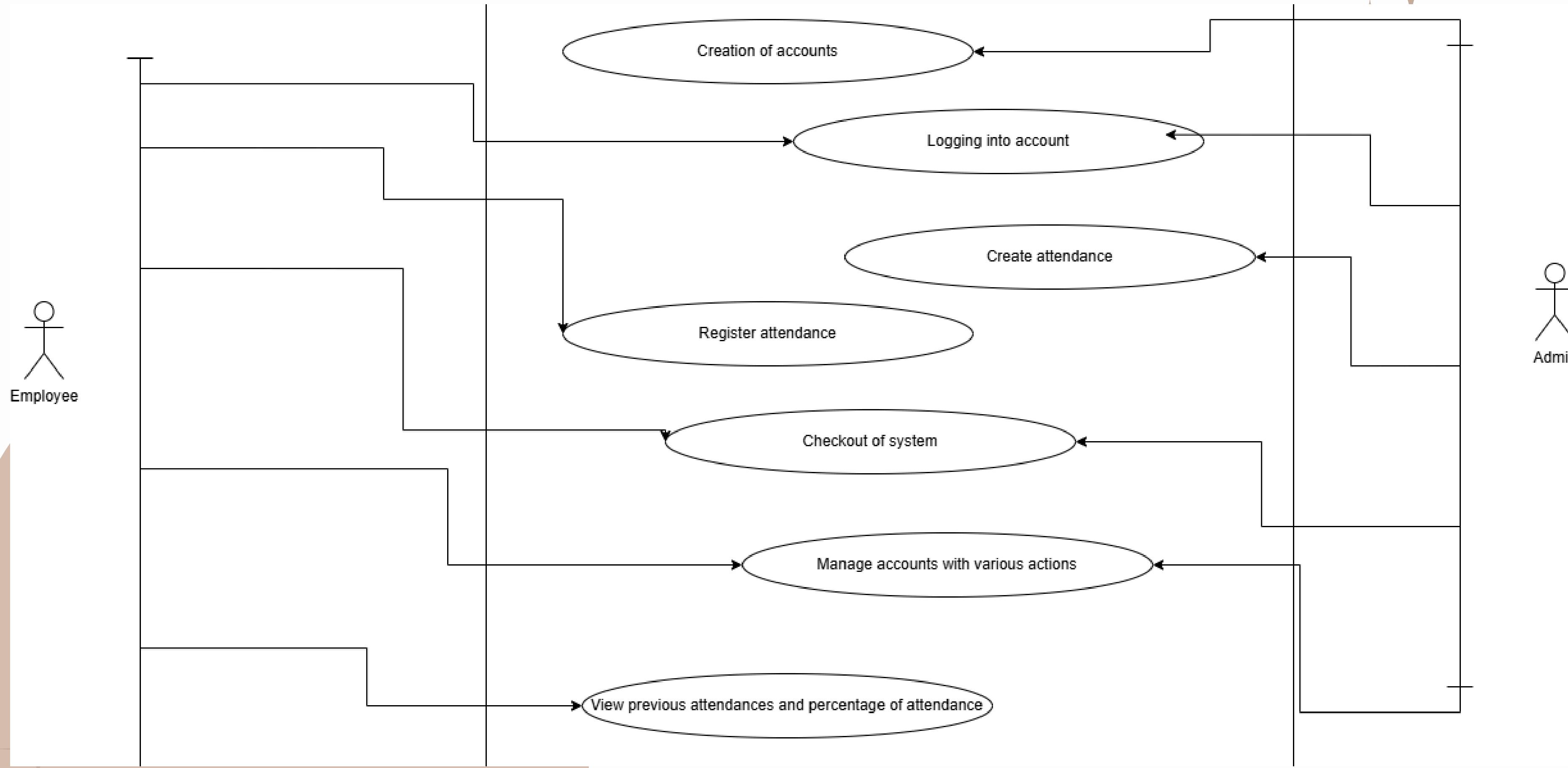
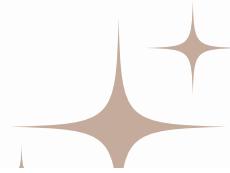
ENTITY RELATIONSHIP DIAGRAM



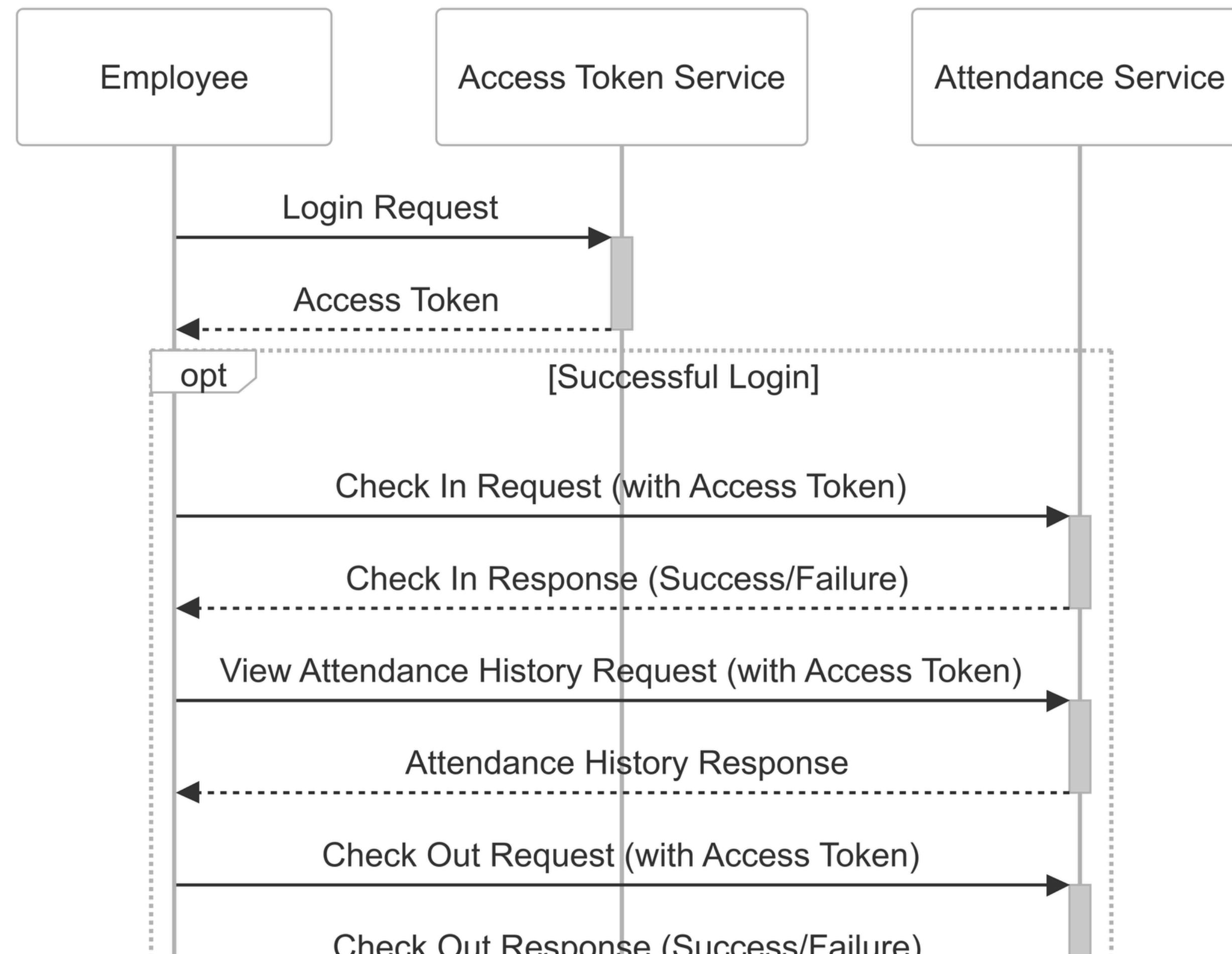
CLASS DIAGRAM



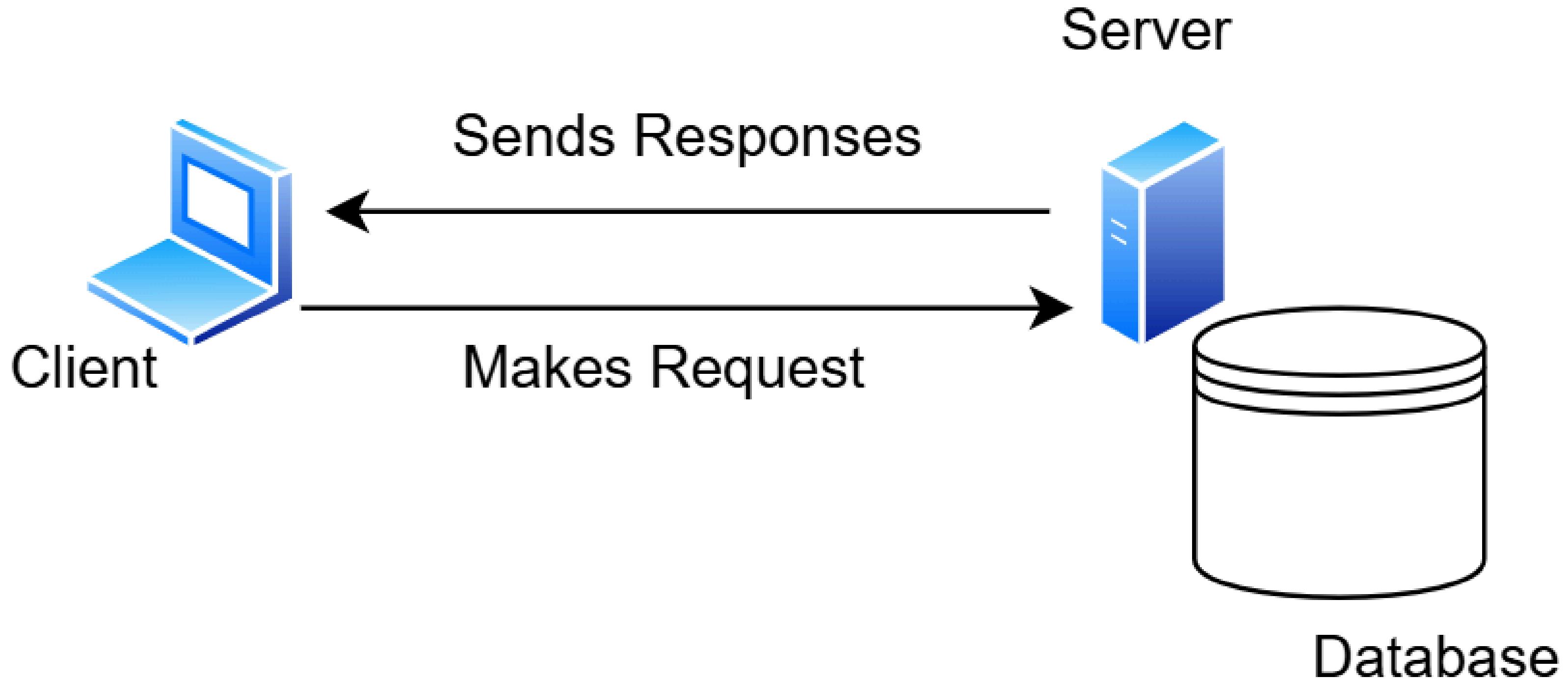
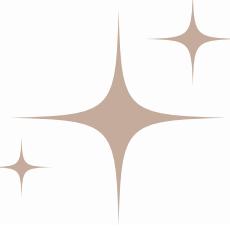
USE CASE DIAGRAM



SEQUENCE DIAGRAM



DEPLOYMENT DIAGRAM



2. INTERNSHIP ACTIVITIES (CONT.)

IMPLEMENTATION: Tools Used During Internship And For The Project

Being an **onsite intern** with an **HP Laptop** using the **Ubuntu OS** under the **software development team** assigned to **full-stack development tasks**, these were the following technologies used within the company and for this project: (CEF344

CLIENT-SERVER AND WEB APPLICATION DEVELOPMENT(PHP,
JAVASCRIPT, XML, J2EE)



Figma

Used for UI
drafting



Angular Framework

HTML, CSS and
TypeScript



Spring Boot

Java Framework



MySQL

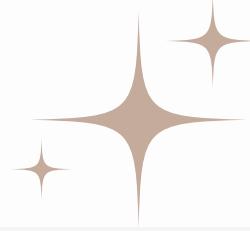
SQL Database



Git, GitHub

Version Control
System

UI DESIGN DRAFT WITH FIGMA



PLANNING OF VIEWS

LOGIN VIEW

Auth

LOGIN

Email

Password

Forgot Password?

Log In

CLIENT VIEW

Dashboard

Hi Maria, Welcome to your space

Your Attendance February **60%**

Record Attendance ✓

Check Out

ID	Name	Date	Time In	Time Out
001001	John Doe	2023-01-01	08:00:00	17:00:00
001002	Jane Smith	2023-01-01	08:00:00	17:00:00
001003	Mike Johnson	2023-01-01	08:00:00	17:00:00
001004	Sarah Davis	2023-01-01	08:00:00	17:00:00
001005	David Wilson	2023-01-01	08:00:00	17:00:00

ADMIN VIEW

Dashboard

Hello Admin

ID	Name	Department	Address	Phone No.	Action
001001	John Doe	Software Dev.	123 Main St	555-1234	Edit
001002	Jane Smith	Software Dev.	123 Main St	555-1234	Edit
001003	Mike Johnson	Software Dev.	123 Main St	555-1234	Edit
001004	Sarah Davis	Software Dev.	123 Main St	555-1234	Edit
001005	David Wilson	Software Dev.	123 Main St	555-1234	Edit

Logout

Employee ID:

First Name:

Last Name:

Department:

Address:

Phone No.:



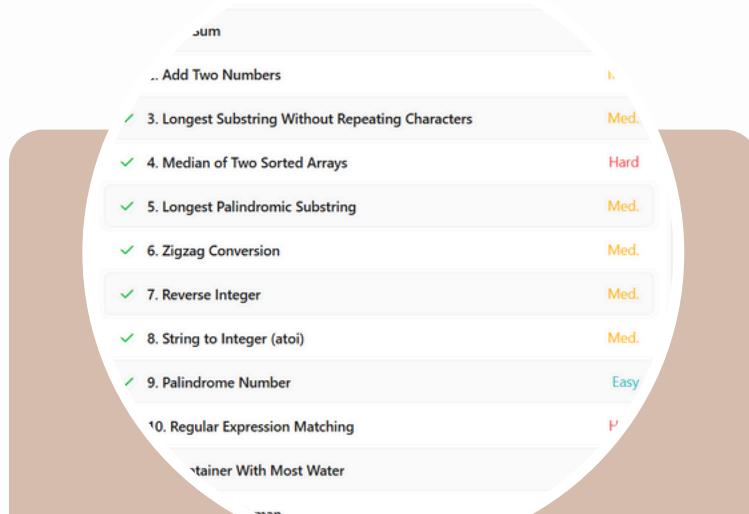
PRESENTATION OF IMPLEMENTATION



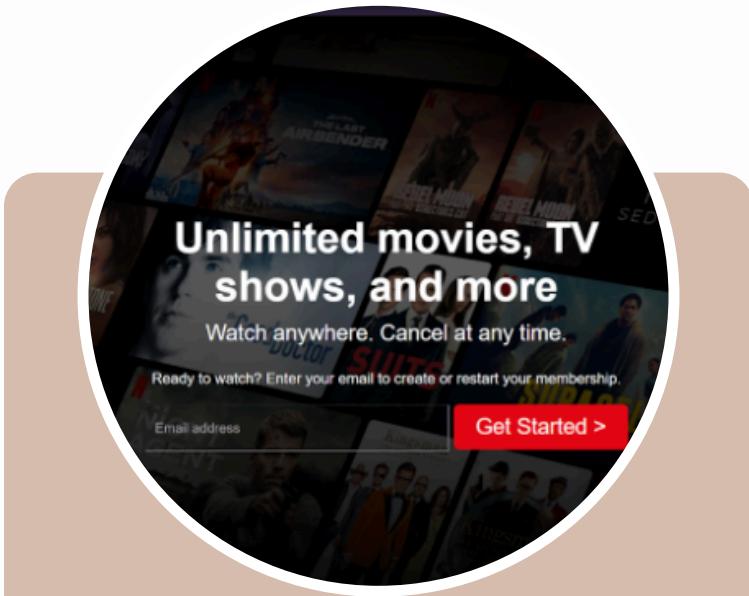
GO
EMS

2. INTERNSHIP ACTIVITIES (CONT.)

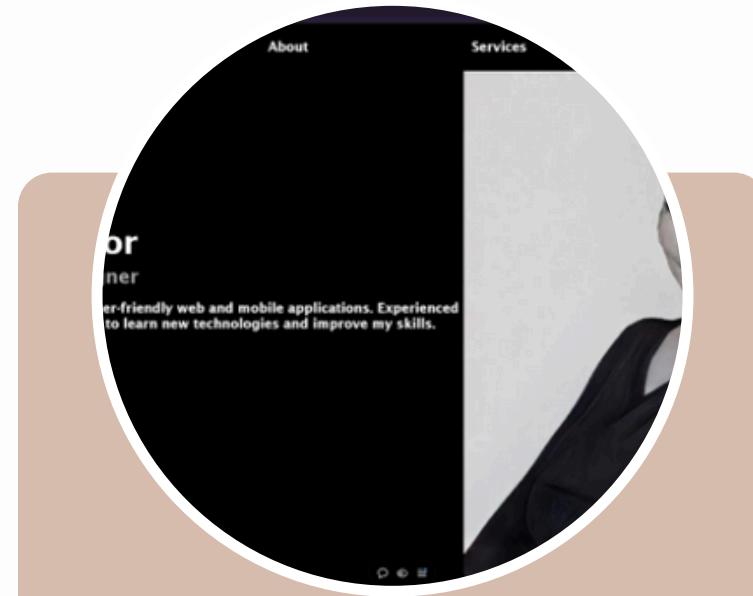
More Learning Projects And Tasks



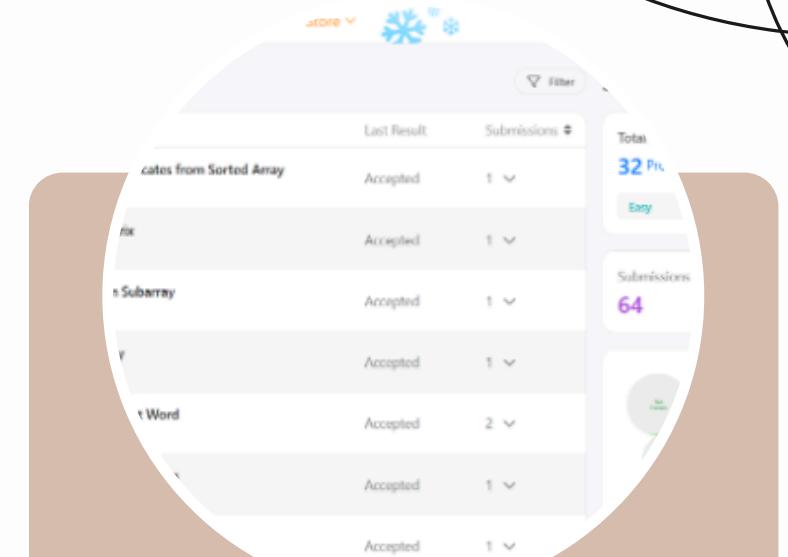
LEETCODE JAVA
CHALLENGES



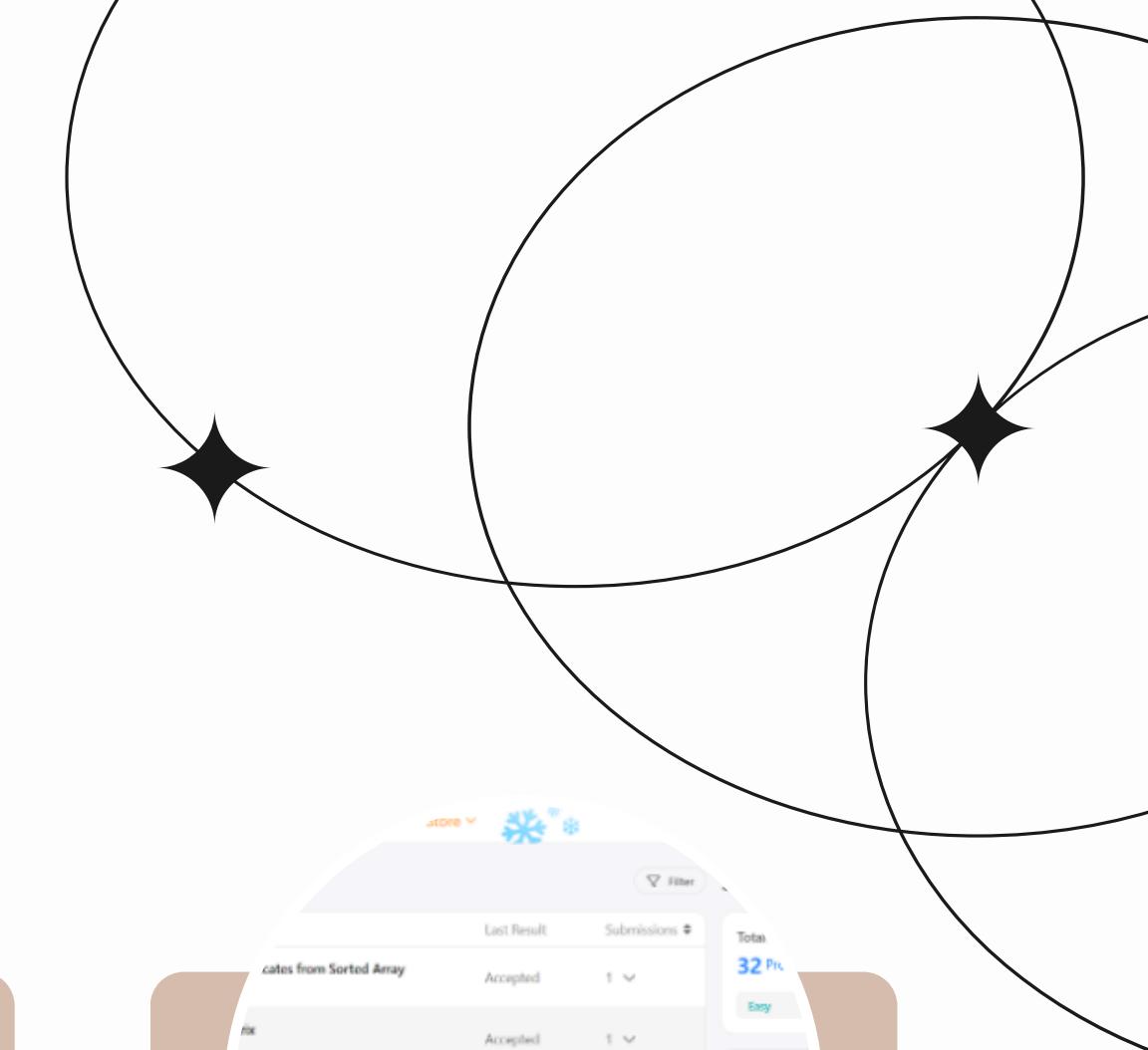
REPLICATION OF
NETFLIX HOME
SCREEN WITH
HTML, CSS AND JS



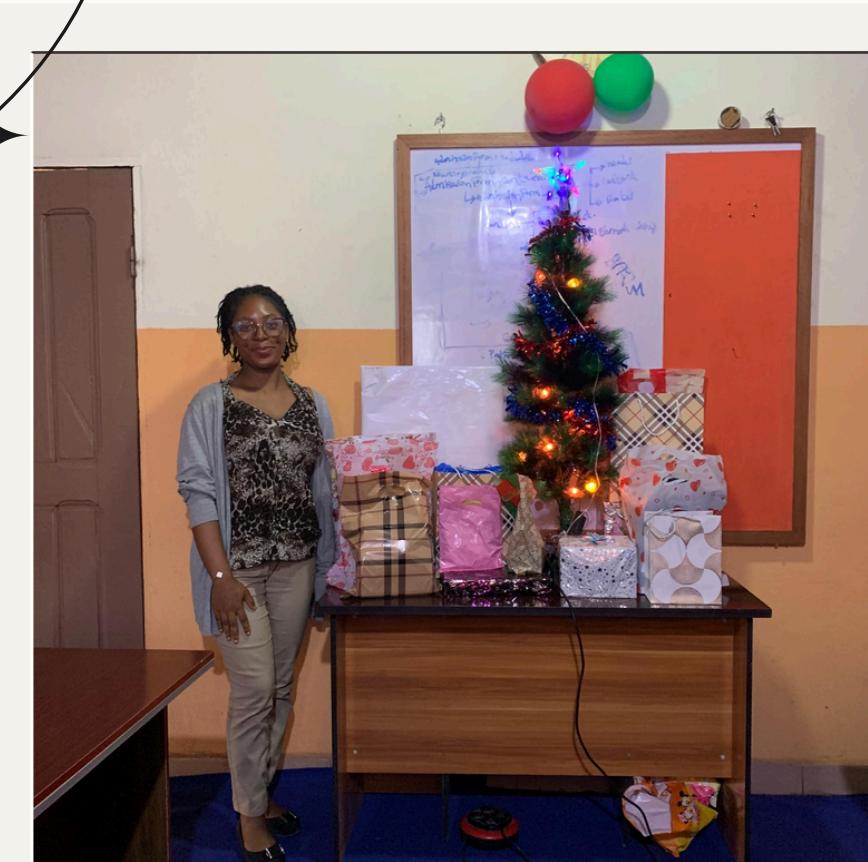
PERSONAL
PORTFOLIO WITH
ANGULAR



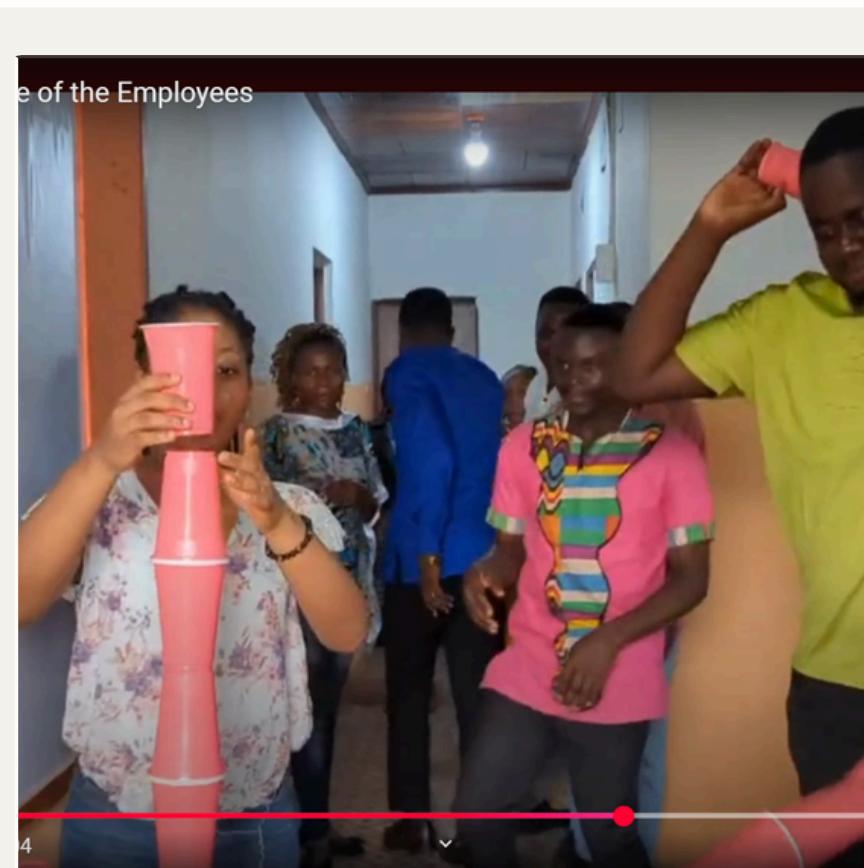
HACKERRANK
TYPESCRIPT
CHALLENGES



3. EXTRACURRICULAR ACTIVITIES



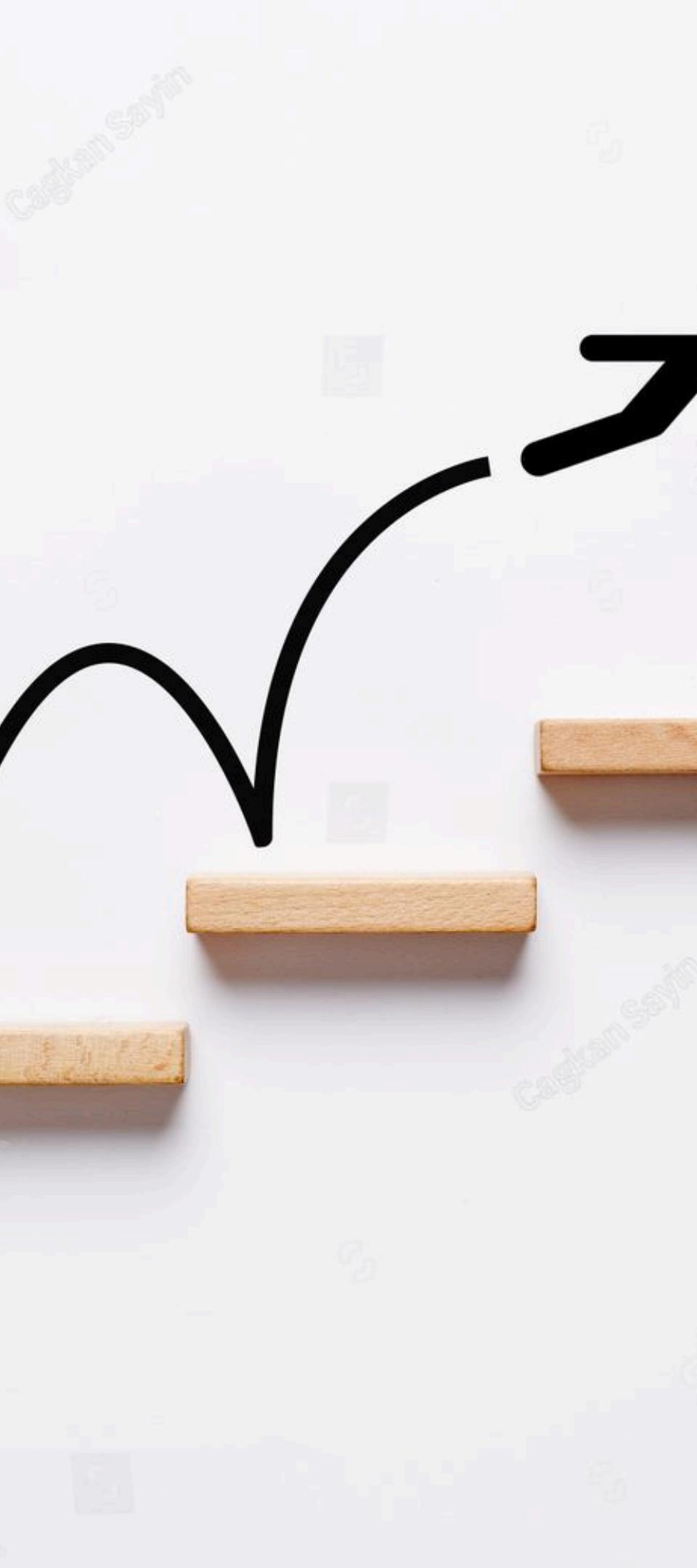
**Christmas Party At
The Office**



**Content Creation with Marketing
Team for the Youtube Channel**



**Women Techsters
Program Completion**



5. CONCLUSION

- Insightful
- Wonderful
- Productive



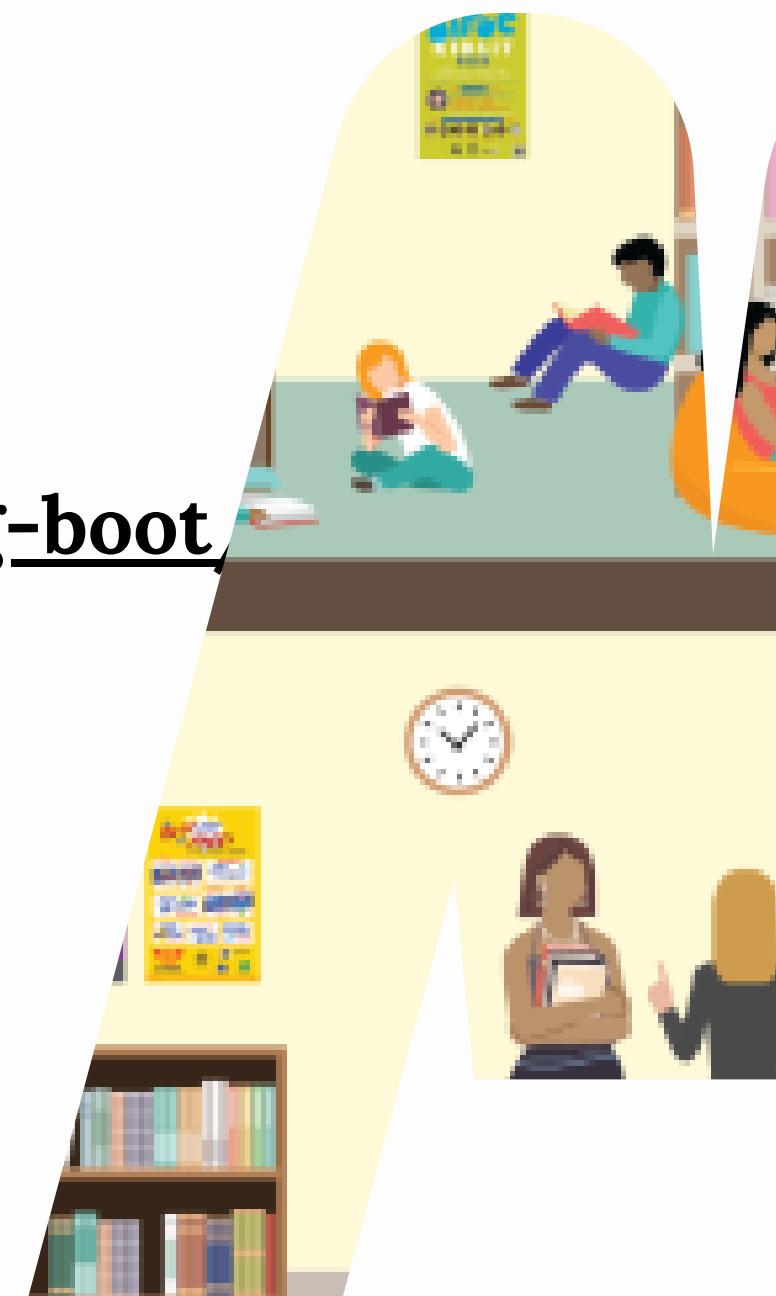
4. DIFFICULTIES AND CHALLENGES

- Adapting to Ubuntu
- Meeting Deadlines
- Debugging Codes



6. REFERENCES

- Stack Overflow URL: <https://stackoverflow.com/>
- W3Schools URL: <https://www.w3schools.com/>
- Gemini URL: <https://gemini.google.com/app>
- FreePik URL : <https://www.freepik.com/>
- Angular Documentation URL: <https://angular.io/>
- Spring Boot Documentation URL: <https://spring.io/projects/spring-boot>
- Oracle Java Documentation URL: <https://docs.oracle.com/en/java/>
- Git Documentation URL: <https://git-scm.com/doc>
- GitHub Docs URL: <https://docs.github.com/>
- Agile Manifesto URL: <https://agilemanifesto.org/>
- Scrum Guide URL: <https://scrumguides.org/>





Thank you for your
attention

THE END