

# Idea/Approach Details

**Technology Bucket:** Software - Web App development

**Category:**Software

**Company Name/Ministry name:** SSEPL Skills Pvt Ltd.

**Problem Code:** RA2

**Team Leader:** Clayton Sohan Pereira

**College Code:**1-3508330114

## Description of the Idea /Solution/ Prototype:

- ❖ **Main Timetable:** Admin provides details of subjects for various classes in the institution along with its practical and theory hours. The faculty provides their subject interest based on which the timetable is generated.
- ❖ **Faculty Schedule:** The faculty is provided with their weekly schedule parallel with the generated main timetable.
- ❖ **Attendance Management:** The concerned faculty needs to enter the weekly attendance of the class, a statistical data will be presented to the admin with suggestions for change in faculty if needed.
- ❖ **Dynamic Nature:** If the faculty is on a leave, an alternate time table will be generated and informed to the CR of the class.
- ❖ **Feedback:** A weekly feedback is provided to the concerned faculty based on the attendance.

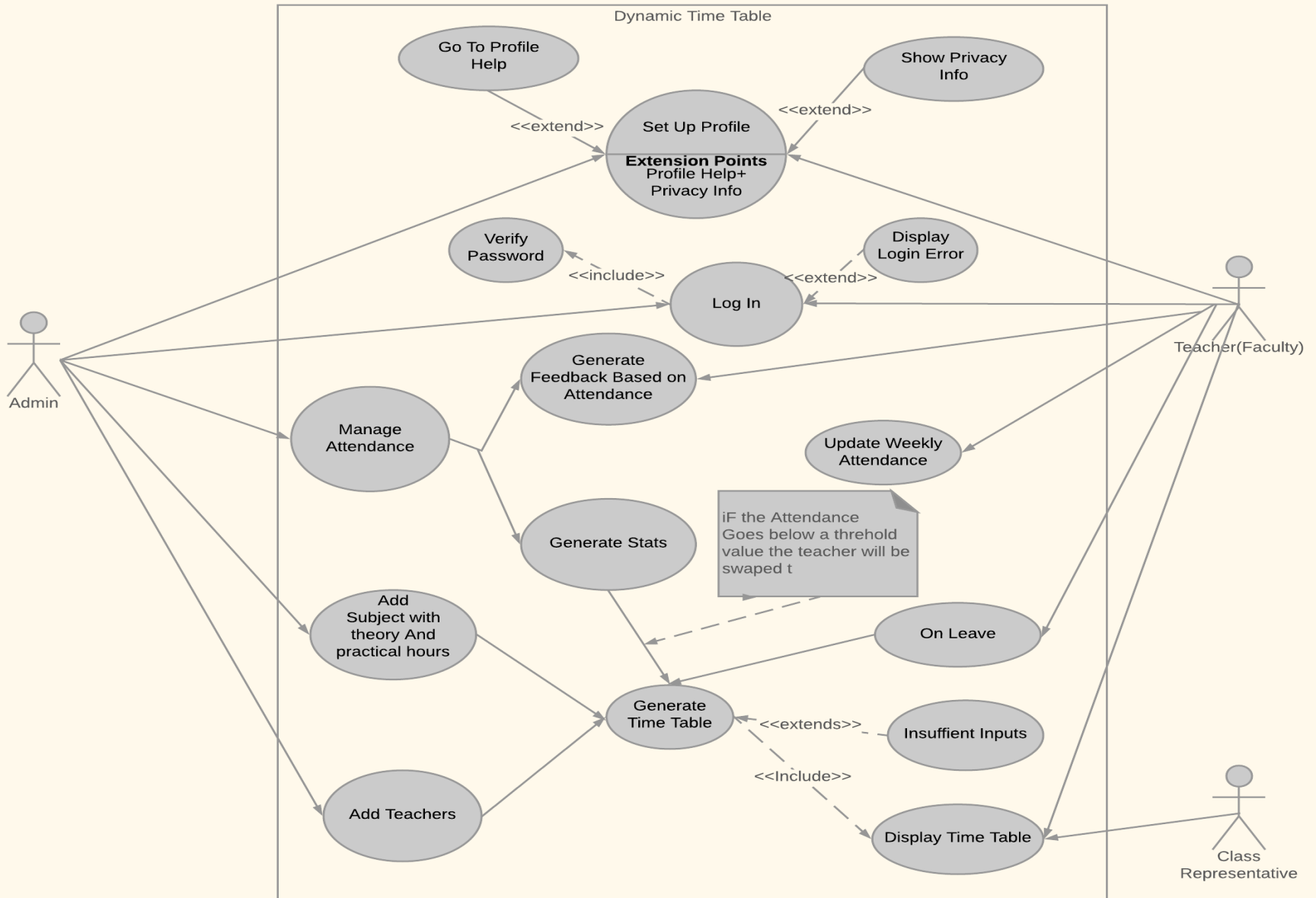
## Technology Stack:

**Client-side:** 1] React Native Framework (Open source library)  
2] Native Base UI Library (Open source framework)

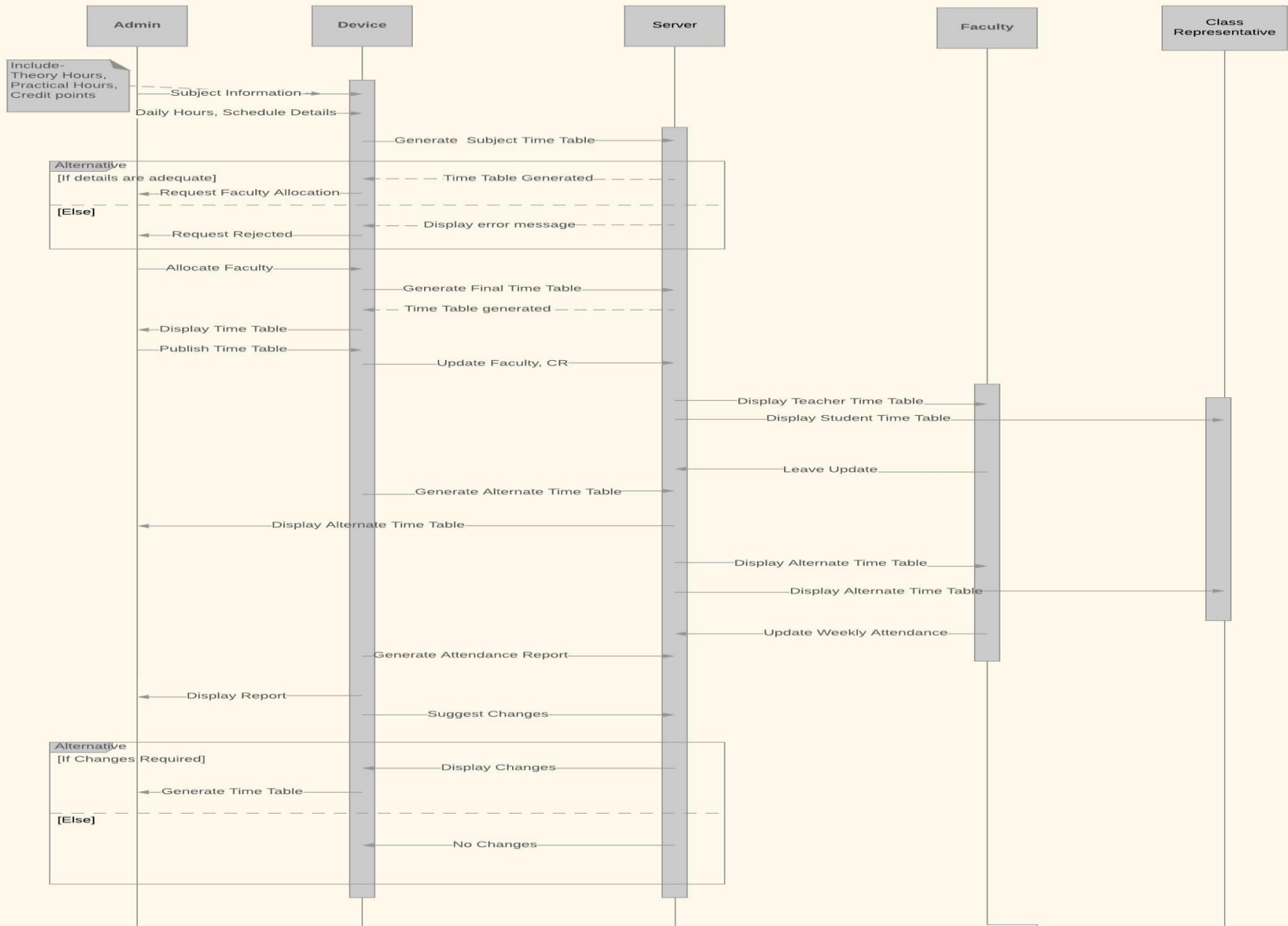
**Server-side:** 1]Node.js (Open Source, cross-platform JavaScript Environment)  
2]Express Framework (For Backend Business logic)  
(Open Source Framework)  
3] Mongo Database(For Storing user details)  
(Open Source Database)

# Description of Use Cases:

## UML USE CASE DIAGRAM:



# UML SEQUENCE DIAGRAM:



**Faculty:** The faculty will register themselves and will be able to login with the help of an ID and a password. They will update their subjects and accordingly get assigned to the timetable when generated by the Admin. Also the faculty is provided with a personal schedule based on the timetable generated by the Admin. If the faculty wants to go on a leave he/she can update to the system on which the system will generate an alternate timetable

**Admin:** The Admin gives subject information about various branches of the institution, lecture and practical timeframe, classroom details and can monitor the working of the entire app that includes filling of the database, teacher feedback, etc.

**Class Representative:** The final time table or any update in the schedule will be mailed to the class representative who will be responsible for sharing it to the class.

### **Dependencies/Show Stopper:**

Attendance manipulation: Attendance may not be the appropriate feedback system to understand the skill of teacher.

Admin reliant: The System is admin reliant, making the admin a very important entity in the system. A passive Admin in the institution will be a hindrance to the system.