Project Title --Developing a Backend Admin for Learner's Academy.

Git link

https://github.com/jyothiarunkr/Phase2-Developing-a-Backend-Admin-for-Learner-s-Academy..git

Project Report By Dr. Jyothi N.M.

1. **Project objective:**

As a Full Stack Developer, design and develop a backend administrative portal for the Learner's Academy.

Use the GitHub repository to manage the project artifacts.

2. **Background of the problem statement:**

Learner's Academy is a school that has an online management system. The system keeps track of its classes, subjects, students, and teachers. It has a back-office application with a single administrator login.

3. **Functional Requirements:**

3.1 The administrator can:

- Set up a master list of all the subjects for all the classes
- Set up a master list of all the teachers
- Set up a master list of all the classes
- Assign classes for subjects from the master list
- Assign teachers to a class for a subject (A teacher can be assigned to different classes for different subjects)
- Get a master list of students (Each student must be assigned to a single class)

There will be an option to view a Class Report which will show all the information about the class, such as the list of students, subjects, and teachers

The goal of the company is to deliver a high-end quality product as early as possible.

4. System Design

4.1 The flow and features of the application:

- Plan more than two sprints to complete the application
- Document the flow of the application and prepare a flow chart
- List the core concepts and algorithms being used to complete this application
- Implement the appropriate concepts, such as exceptions, collections, and sorting techniques for source code optimization and increased performance

5. Technologies used:

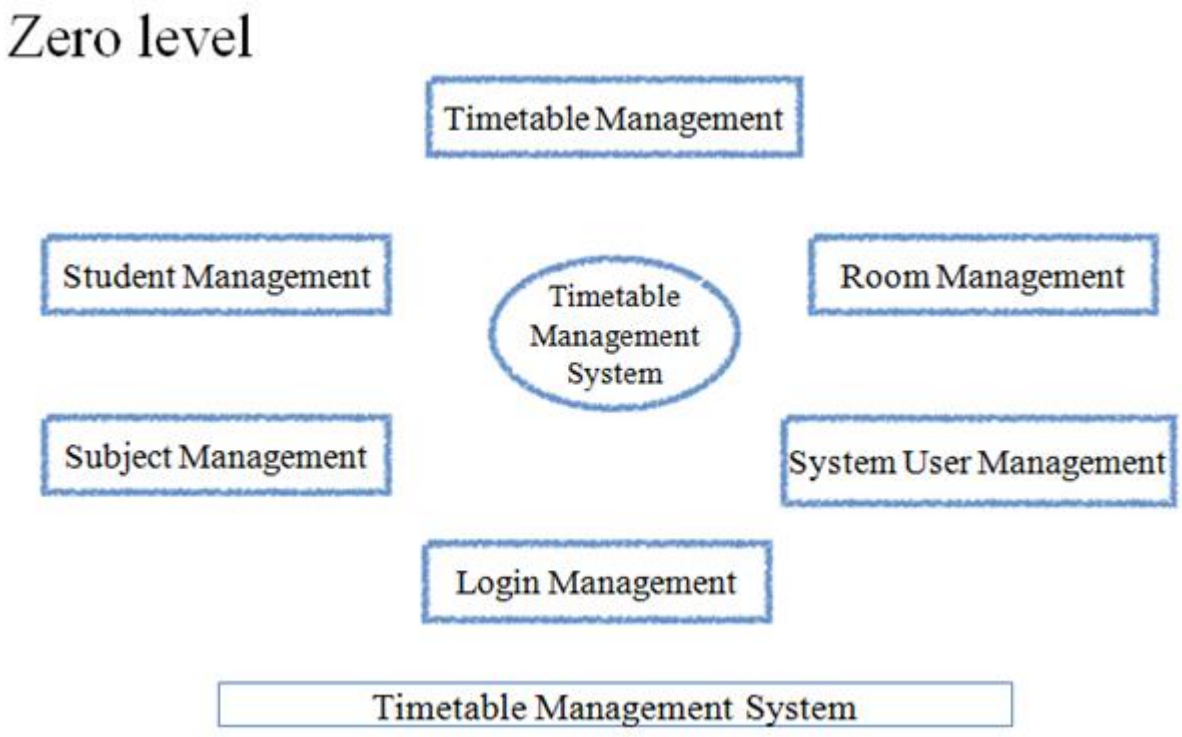
- Eclipse/IntelliJ: An IDE to code for the application
- Java: A programming language to develop the web pages, databases, and others
- SQL: To create tables for admin, classes, students, and other specifics
- Git: To connect and push files from the local system to GitHub
- GitHub: To store the application code and track its versions
- Scrum: An efficient agile framework to deliver the product incrementally
- Search and Sort techniques: Data structures used for the project
- Specification document: Any open-source document or Google Docs

6.Data Base Design

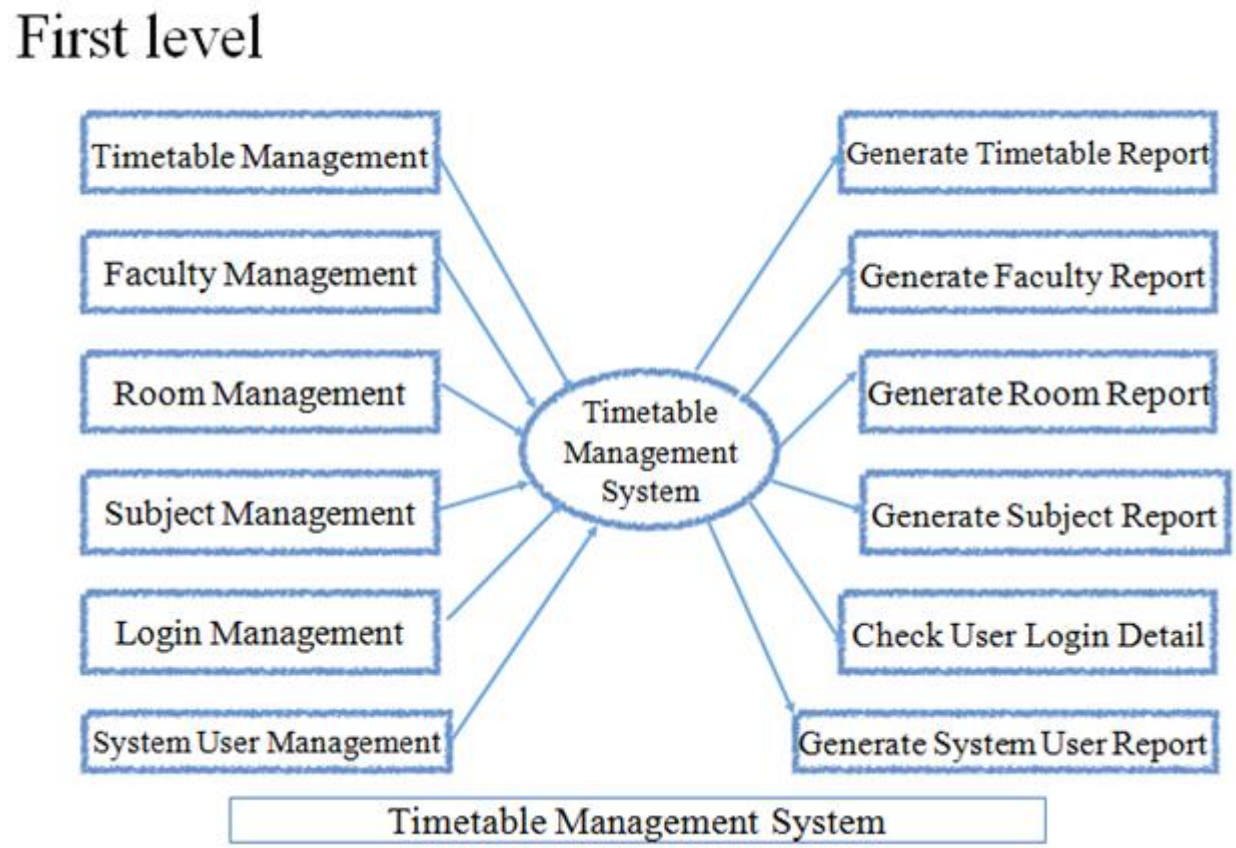
Data Base used My SQL

Data Base Design

Design Diagrams:



Data Flow Diagram Zero Level



Data Flow Diagram First Level

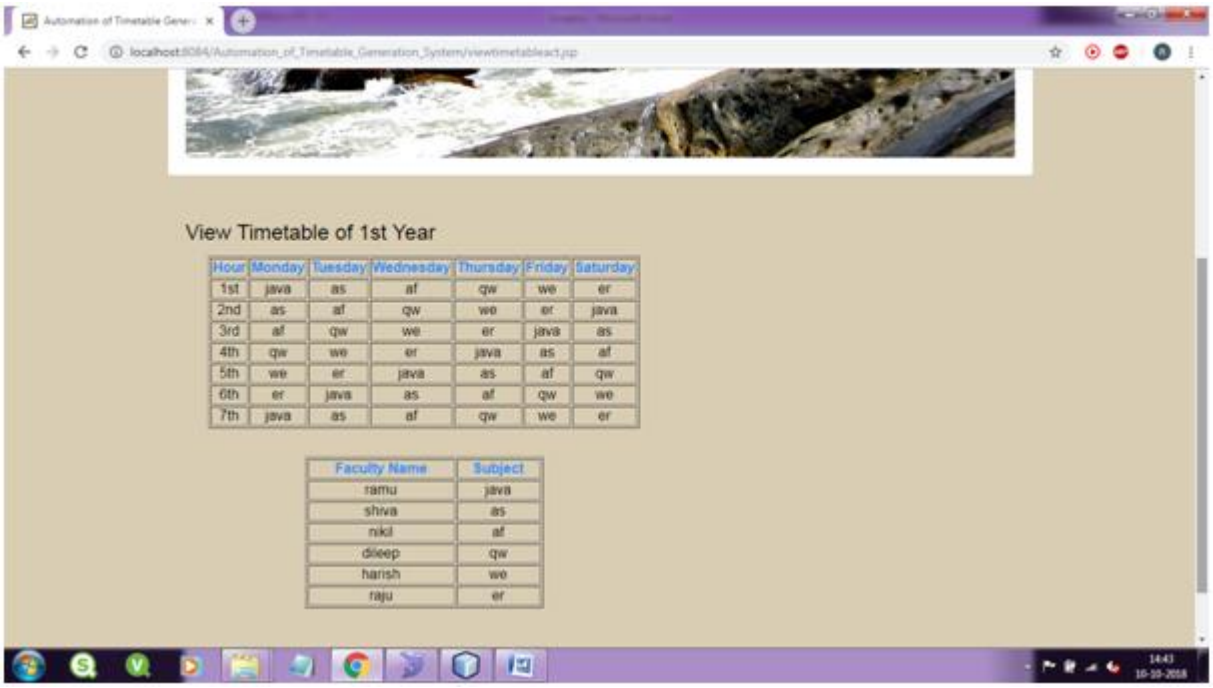
```
CREATE TABLE `1st` (
  `hr` varchar(100) DEFAULT NULL,
  `mon` varchar(100) DEFAULT NULL,
  `tue` varchar(100) DEFAULT NULL,
  `wed` varchar(100) DEFAULT NULL,
  `thu` varchar(100) DEFAULT NULL,
  `fri` varchar(100) DEFAULT NULL,
  `sat` varchar(100) DEFAULT NULL,
  `yr` varchar(100) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

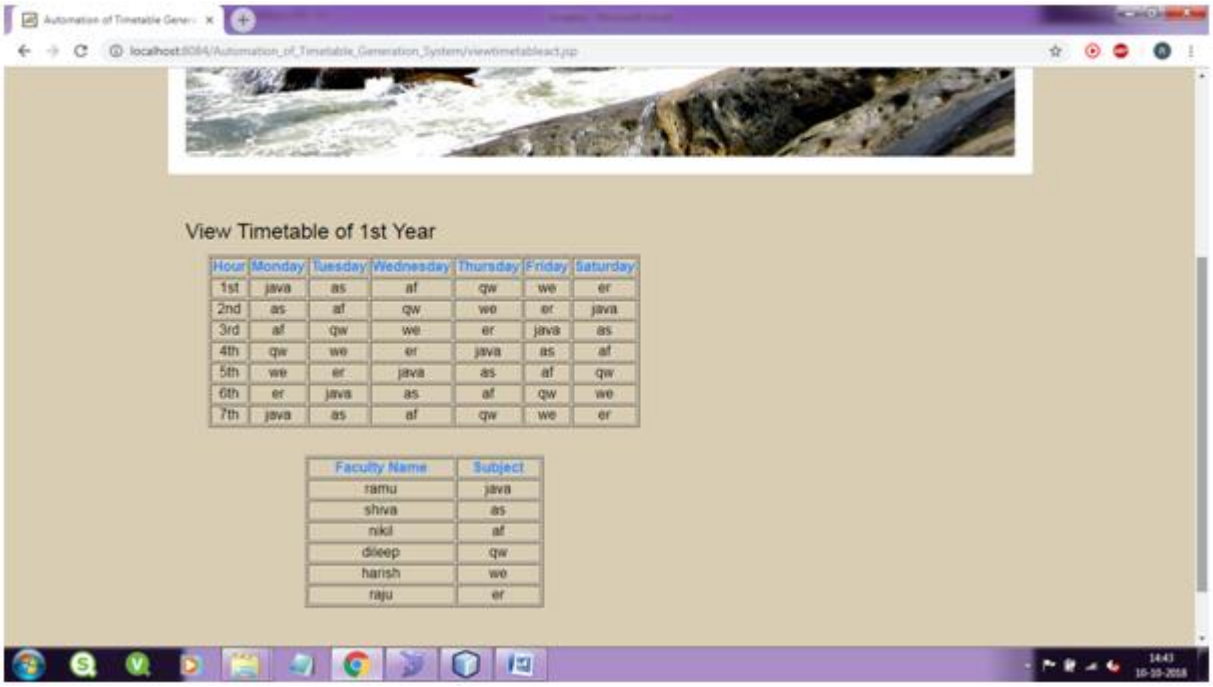
```
CREATE TABLE `faculty` (
  `facname` varchar(100) DEFAULT NULL,
  `email` varchar(100) DEFAULT NULL,
  `address` varchar(100) DEFAULT NULL,
  `mobile` varchar(100) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `first` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `yr` int(11) DEFAULT NULL,
  `fname` varchar(100) DEFAULT NULL,
  `subject` varchar(100) DEFAULT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB AUTO_INCREMENT=7 DEFAULT CHARSET=latin1;
```

Similary table created for second, third and fourth hour

Out put screens





View Timetable of 1st Year

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st	java	as	af	qw	we	er
2nd	as	af	qw	we	er	java
3rd	af	qw	we	er	java	as
4th	qw	we	er	java	as	af
5th	we	er	java	as	af	qw
6th	er	java	as	af	qw	we
7th	java	as	af	qw	we	er

Faculty Name	Subject
ramu	java
shiva	as
nikil	af
dileep	qw
harish	we
raju	er