Smart-timetable

ER Diagram

TimeTable

code	string
courseCode	string
courseName	string
roomName	string
day	string
period	string
yearGroup	string
program	string
scheduled	boolean

Student

id	pk
indexNo	string
email	string
programId	fk
name	string
yearGroupId	fk

StudentCourse

id	
studentId	pk
courseId	pk

Program

id	pk
programName	string

Course

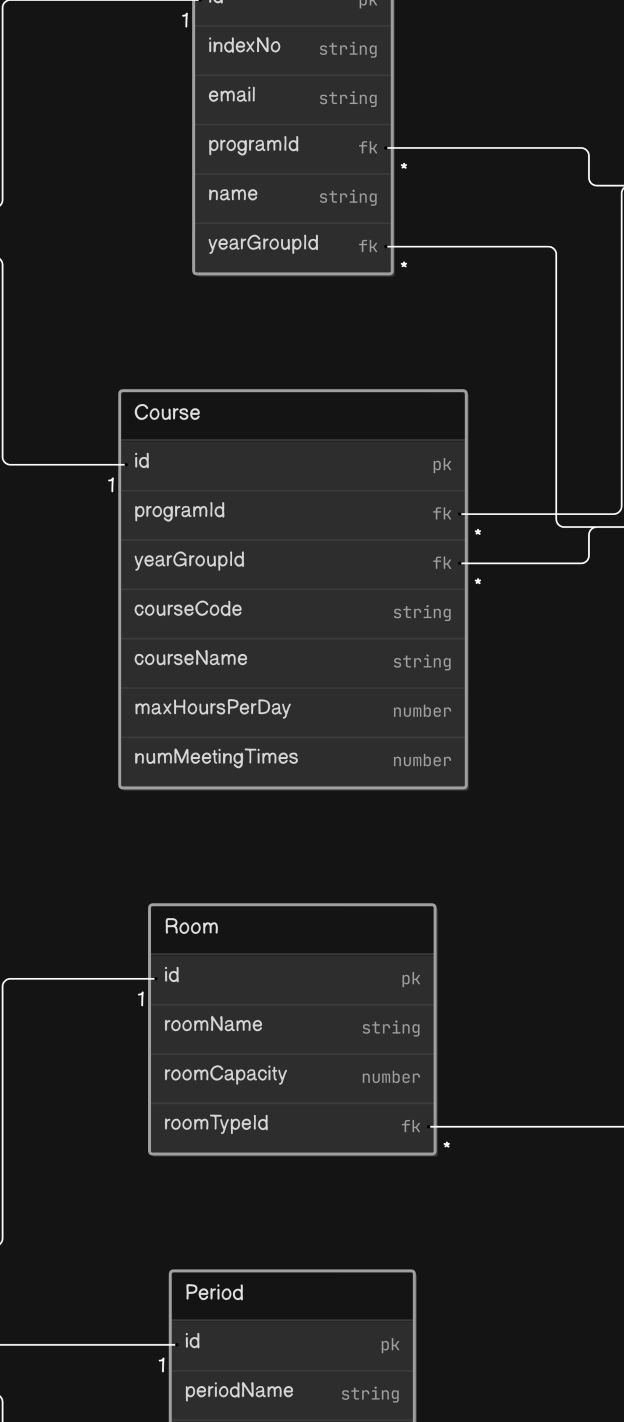| id	pk
programId	fk
yearGroupId	fk
courseCode	string
courseName	string
maxHoursPerDay	number
numMeetingTimes	number

YearGroup

id	pk
name	string

Room

id	pk
roomName	string
roomCapacity	number
roomTypeId	fk

RoomType

id	pk
roomTypeName	string
description	string

roomAvailabiliy

id	pk
roomId	fk
isAvailable	boolean
periodId	fk
dayId	fk

Period

id	pk
periodName	string
periodRange	string

Day

Technologies

- **Nodejs - Run time for javascript for bulding server-side applications**
- **ExpressJs - FrameWork for building apis**
- **MongoDb - Nosql database**
- **Mongoose - object modeling tool for javascript and nodejs**

Api Endpoints

Endpoint	Method	Description
/api/courses	GET	Get all courses with the total students appended
/api/roomAvailability	GET	Get all rooms available for scheduling(ie exluding Offices)
/api/rooms	GET	Get all rooms
/api/populate	GET	Populate the database with test data
/api/students	POST	Add a student to the database
/api/schedule/:code	GET	Get timetable based on the code for uniqueness
/api/schedule/:code	POST	Generate timetable for with code for uniqueness

Setup Maunual

Setting Server

1. Navigate to C:\Users\HP\Desktop\mini-p\smart-timetable\backend
2. Run ""npm install""
3. run npm run start to start the server

Setting up Client Web

- Navigate to C:\Users\HP\Desktop\mini-p\smart-timetable\Web\smart-timetable
- Run ""npm install""
- run npm run dev to start the server