APIs

1. API to List All Teachers:

curl-X GET http://localhost:5288/api/TeacherAPI

2. API to Find Teacher by ID:

curl-X GET http://localhost:5288/api/TeacherAPI/1

3. API to Add a teacher:

curl-X POST http://localhost:5288/api/TeacherAPI -H "Content-Type: application/json" -d "{""name"":""Mark Smith"",""hireDate"":""2024-01-05T00:00:00"",""subject"":""Physics"",""employeeNumber"":""T9199"",""teacherWorkPhone"":""111-222-3333""}"

4. API to Delete a teacher:

curl-X DELETE http://localhost:5288/api/TeacherAPI/3

```
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/TeacherAPI/10
{
  "$id": "1",
  "message": "Teacher successfully deleted.",
  "teacherId": 10
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

5. API for Error while Add a Teacher with Missing Name:

curl-X POST http://localhost:5288/api/TeacherAPI-H "Content-Type: application/json"-d "{""name"":"""",""hireDate"":""2024-01-05T00:00:00"",""subject"":""Physics"",""employeeNumber"":""T9001"",""teacherWorkPhone"":""111-222-3333""}"

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/TeacherAPI -H "Content-Type: application/json" -d "{""name"":"""",""hireDate"":""2024-01-05T00:00:00"",""subject"":""Physics"",""employeeNumber"":""T9001"",""teacherWorkPhone"":""111-222-3333""}"
{
  "$id": "1",
  "type": "https://tools.ietf.org/html/rfc9110#section-15.5.1",
  "title": "One or more validation errors occurred.",
  "status": 400,
  "errors": {
    "$id": "2",
    "Name": [
      "The Name field is required."
    ]
  },
  "traceId": "00-72dba03d5e7f4c91d3982dbc9ded8934-927ea51562bd700d-00"
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

6. API for Error while Add a Teacher with Future Hire Date:

curl-X POST http://localhost:5288/api/TeacherAPI-H "Content-Type: application/json"-d "{""name"":""Future Teacher"",""hireDate"":""2026-05-10T00:00:00"",""subject"":""Biology"",""employeeNumber"":""T12345"",""teacherWorkPhone"":""555-555-5555""}"

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/TeacherAPI -H "Content-Type: application/json" -d "{""name"":""Future Teacher"",""hireDate"":""2026-05-10T00:00:00"",""subject"":""Biology"",""employeeNumber"":""T12345"",""teacherWorkPhone"":""555-555-5555""}"
{
  "$id": "1",
  "message": "Error: Hire date cannot be in the future."
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

7. API for Error while Add a Teacher with Invalid Employee Number:

curl-X POST http://localhost:5288/api/TeacherAPI-H "Content-Type: application/json"-d "{""name"":""Invalid Employee"",""hireDate"":""2023-06-15T00:00:00"",""subject"":""History"",""employeeNumber"":""ABC123"",""teacherWorkPhone"":""555-666-7777""}"

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/TeacherAPI -H "Content-Type: application/json" -d "{""name"":""Invalid Employee"",""hireDate"":""2023-06-15T00:00:00"",""subject"":""History"",""employeeNumber"":""ABC123"",""teacherWorkPhone"":""555-666-7777""}"
{
  "$id": "1",
  "message": "Error: Employee Number must start with 'T' followed by digits."
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```
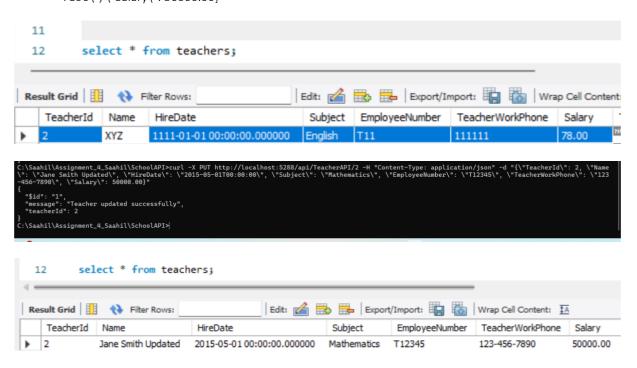
8. API for Delete Teacher that do not exists:

curl-X DELETE http://localhost:5288/api/TeacherAPI/9999

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/TeacherAPI/9999
{
  "$id": "1",
  "message": "Error: Teacher not found.",
  "teacherId": 9999
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

9. API which Updates a Teacher
   curl -X PUT http://localhost:5288/api/TeacherAPI/2 -H "Content-Type: application/json" -d
   "{\"TeacherId\": 2, \"Name\": \"Jane Smith Updated\", \"HireDate\": \"2015-05-01T00:00:00\",
   \"Subject\": \"Mathematics\", \"EmployeeNumber\": \"T12345\", \"TeacherWorkPhone\": \"123-456-
   7890\", \"Salary\": 50000.00}"

10. Update when the Teacher Hire Date is in the future

11. Update when the Salary is less than 0

12. Update when the Teacher Name is empty

<u>Web Page</u>

1. Display All Teachers:

2. Display Single Teacher:

3. Add New Teacher:

4. Delete Teacher:

5. Try to Add Teacher with Missing Fields

6. Update Teacher

Edit Teacher

Name:

XYZ

Hire Date:

01-01-1111

Subject:

English

Employee Number:

T11

Work Phone:

111111

Salary:

78.00

Update Teacher

Teacher updated successfully!

Teachers List

Search by hire date (YYYY-MM-DD)

ID	Name	Hire Date	Subject	Employee Number	Work Phone	Salary	Actions
2	XYZ	1111-01-01	English	T11	111111	$78.00	View Edit Delete
3	Saahil	1111-01-01	Js	T100	788888	$7868.00	View Edit Delete

Add New Teacher

7. Update when the Teacher Name is empty

Edit Teacher

Name:

Hire Date:

01-01-1111

Subject:

English

Employee Number:

T11

Work Phone:

111111

Salary:

78.00

Update Teacher

Please fill all required field : Name.

8. Update when the Teacher Hire Date is in the future

Edit Teacher

Name:

Saahil

Hire Date:

01-01-8887

Subject:

English

Employee Number:

T11

Work Phone:

111111

Salary:

78.00

Update Teacher

Error updating teacher: Error: Hire date cannot be in the future.

9. Update when the Salary is less than 0

Edit Teacher

Name:

Saahil

Hire Date:

01-01-1111

Subject:

English

Employee Number:

T11

Work Phone:

111111

Salary:

-78

Update Teacher

Salary cannot be less than 0

1. API to List All Students:

curl-X GET http://localhost:5288/api/StudentAPI

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/StudentAPI
{
  "$id": "1",
  "$values": [
    {
      "$id": "2",
      "studentId": 1,
      "name": "Emily Johnson",
      "enrollmentDate": "2023-09-01T00:00:00"
    },
    {
      "$id": "3",
      "studentId": 2,
      "name": "Mili",
      "enrollmentDate": "2023-09-01T00:00:00"
    }
  ]
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

2. API to Find Student by ID:

curl-X GET http://localhost:5288/api/StudentAPI/2

```
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/StudentAPI/2
{
  "$id": "1",
  "studentId": 2,
  "name": "Mili",
  "enrollmentDate": "2023-09-01T00:00:00"
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

3. API to Add a Student

curl-X POST http://localhost:5288/api/StudentAPI-H "Content-Type: application/json"-d "{""name"":""Mili"",""enrollmentDate"":""2023-09-01T00:00:00""}"

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/StudentAPI -H "Content-Type: application/json" -d "{""name"":""Mili"",""enrollmentDate"":""2023-09-01T00:00:00""}"
{
  "$id": "1",
  "studentId": 2,
  "name": "Mili",
  "enrollmentDate": "2023-09-01T00:00:00"
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

4. API to Delete a student:

curl-X DELETE http://localhost:5288/api/StudentAPI/1

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/StudentAPI/1
{
  "$id": "1",
  "message": "Student successfully deleted.",
  "studentId": 1
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

5. API Error while Add a Student with Missing Name

curl-X POST http://localhost:5288/api/StudentAPI-H "Content-Type: application/json"-d "{""name"":"""",""enrollmentDate"":""2023-09-01T00:00:00""}"

C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/StudentAPI -H "Content-Type: application/json" -d "{""name"":"""","enrollmentDate"":""2023-09-01T00:00:00""}"
{
  "$id": "1",
  "type": "https://tools.ietf.org/html/rfc9110#section-15.5.1",
  "title": "One or more validation errors occurred.",
  "status": 400,
  "errors": {
    "$id": "2",
    "Name": [
      "The Name field is required."
    ]
  },
  "traceId": "00-e1f6565bb5702ab900e8fcfd57491d5f-e23708edd1ac5025-00"
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>

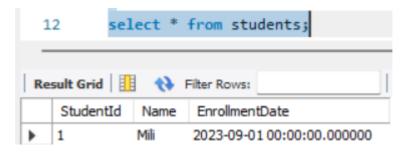6. API-to Delete Student that do not exists:

curl-X DELETE http://localhost:5288/api/StudentAPI/9999

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/StudentAPI/9999
{
  "$id": "1",
  "message": "Error: Student not found.",
  "studentId": 9999
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

7. Update Functionality Students

curl -X PUT http://localhost:5288/api/StudentAPI/1 -H "Content-Type: application/json" -d
"{\"StudentId\": 1, \"Name\": \"Mili Updated\", \"EnrollmentDate\": \"2025-01-01T00:00:00\"}"

```
12        select * from students;
```

StudentId	Name	EnrollmentDate
1	Mili	2023-09-01 00:00:00.000000

C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X PUT http://localhost:5288/api/StudentAPI/1 -H "Content-Type: application/json" -d "{\"StudentId\": 1, \"Name\": \"Mili Updated\", \"EnrollmentDate\": \"2025-01-01T00:00:00\"}"
{
  "$id": "1",
  "message": "Student successfully updated.",
  "studentId": 1
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>

```
12        select * from students;
```

StudentId	Name	EnrollmentDate
1	Mili Updated	2025-01-01 00:00:00.000000

1. API to List All Courses:

curl-X GET http://localhost:5288/api/CourseAPI

```
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/CourseAPI
{
  "$id": "1",
  "$values": [
    {
      "$id": "2",
      "courseId": 5,
      "courseName": "Introduction to AI",
      "teacherId": 7,
      "teacher": null
    }
  ]
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```
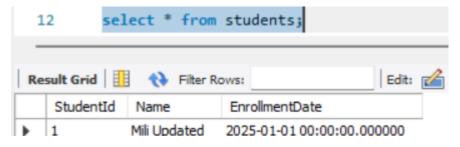
2. API to Find Course by ID:

curl-X GET http://localhost:5288/api/CourseAPI/5

```
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/CourseAPI/5
{
  "$id": "1",
  "courseId": 5,
  "courseName": "Introduction to AI",
  "teacherId": 7,
  "teacher": null
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

3. API to Add a Course

curl-X POST http://localhost:5288/api/CourseAPI-H "Content-Type: application/json"-d
"{""courseName"":""Introduction to AI"",""teacherId"": 7}"

```
Content-Length: 30
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/CourseAPI -H "Content-Type: application/json" -d "{""courseName"":""Introduction to AI"",""
teacherId"": 7}"
{
  "$id": "1",
  "courseId": 5,
  "courseName": "Introduction to AI",
  "teacherId": 7,
  "teacher": null
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

4. API to Delete a Course:

curl-X DELETE http://localhost:5288/api/CourseAPI/5

```
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/CourseAPI/5
{
  "$id": "1",
  "message": "Course successfully deleted.",
  "courseId": 5
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

5. API to add a Course with Missing Name

curl-X POST http://localhost:5288/api/CourseAPI-H "Content-Type: application/json"-d
"{""courseName"":"""",""teacherId"":""1""}"

```
    "courseId": 5
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X POST http://localhost:5288/api/CourseAPI -H "Content-Type: application/json" -d "{""courseName"":"""",""teacherId"":""1""}"
{
  "$id": "1",
  "type": "https://tools.ietf.org/html/rfc9110#section-15.5.1",
  "title": "One or more validation errors occurred.",
  "status": 400,
  "errors": {
    "$id": "2",
    "CourseName": [
      "The CourseName field is required."
    ]
  },
  "traceId": "00-4bf62a382816f9077eff1fb4ad6f5223-0745b112bf15d60a-00"
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```
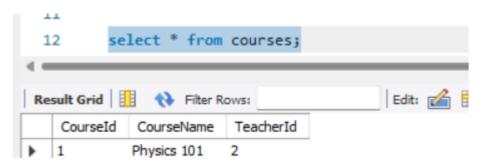
6. API to Delete Non-Existent Course

curl-X DELETE http://localhost:5288/api/CourseAPI/9999

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X DELETE http://localhost:5288/api/CourseAPI/9999
{
  "$id": "1",
  "message": "Error: Course not found.",
  "courseId": 9999
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```

7. Update Functionality Courses

curl -X PUT http://localhost:5288/api/CourseAPI/1 -H "Content-Type: application/json" -d "{\"CourseId\": 1, \"CourseName\": \"Physics 102 - Updated\", \"TeacherId\": 1}"

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X PUT http://localhost:5288/api/CourseAPI/1 -H "Content-Type: application/json" -d "{\"CourseId\": 1, \"CourseName\": \"Physics 102 - Updated\", \"TeacherId\": 2}"
{
  "$id": "1",
  "message": "Course updated successfully",
  "courseId": 1
}
C:\Saahil\Assignment_4_Saahil\SchoolAPI>
```