

Teacher API & Web Tests

APIs

1. API to List All Teachers:

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

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/TeacherAPI
{"$id": "1",
 "$values": [
  {
    "$id": "2",
    "teacherId": 7,
    "name": "Mark Smith",
    "hireDate": "2024-01-05T00:00:00",
    "subject": "Physics",
    "employeeNumber": "T9999",
    "teacherWorkPhone": "111-222-3333",
    "courses": {
      "$id": "3",
      "$values": [
      ]
    }
  },
  {
    "$id": "4",
    "teacherId": 8,
    "name": "Sufiyaan",
    "hireDate": "2025-01-01T00:00:00",
    "subject": "English",
    "employeeNumber": "T99",
    "teacherWorkPhone": "789785",
    "courses": {
      "$id": "5",
      "$values": [
      ]
    }
  },
  {
    "$id": "6",
    "teacherId": 9,
    "name": "Sufiyaan Sayed",
    "hireDate": "2025-01-01T00:00:00",
    "subject": "English",
    "employeeNumber": "T100",
    "teacherWorkPhone": "789785",
    "courses": {
      "$id": "7",
      "$values": [
      ]
    }
  },
  {
    "$id": "8",
    "teacherId": 10,
    "name": "Mark Smith",
    "hireDate": "2024-01-05T00:00:00",
    "subject": "Physics",
    "employeeNumber": "T9199",
    "teacherWorkPhone": "111-222-3333",
    "courses": {
      "$id": "9",
      "$values": [
      ]
    }
  }
 ]
}
```

2. API to Find Teacher by ID:

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

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>curl -X GET http://localhost:5288/api/TeacherAPI/7
{"$id": "1",
 "teacherId": 7,
 "name": "Mark Smith",
 "hireDate": "2024-01-05T00:00:00",
 "subject": "Physics",
 "employeeNumber": "T9999",
 "teacherWorkPhone": "111-222-3333",
 "courses": {
  "$id": "2",
  "$values": [
    {
      "$id": "3",
      "courseId": 5,
      "courseName": "Introduction to AI",
      "teacherId": 7,
      "teacher": {
        "$ref": "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"}'

```
C:\Saahil\Assignment_4_Saahil\SchoolAPI>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"}'
{"$id": "1",
 "teacherId": 10,
 "name": "Mark Smith",
 "hireDate": "2024-01-05T00:00:00",
 "subject": "Physics",
 "employeeNumber": "T9199",
 "teacherWorkPhone": "111-222-3333",
 "courses": {
  "$id": "2",
  "$values": [
  ]
 }
}
```

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": "00-72dbae3d5e7f4c91d3982dbc9ded8934-927ea51562bd780d-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>
```

Web Page

1. Display All Teachers:

Teachers List

Search by hire date (YYYY-MM-DD)

ID	Name	Hire Date	Subject	Employee Number	Work Phone	Actions
7	Mark Smith	2024-01-05	Physics	T9999	111-222-3333	View Delete
8	Sufiyaan	0003-01-01	English	T99	789785	View Delete
9	Sufiyaan Sayed	2025-03-04	English	T100	789785	View Delete

[Add New Teacher](#)

2. Display Single Teacher:

Teacher Details

ID:	9
Name:	Sufiyaan Sayed
Hire Date:	2025-03-04
Subject:	English
Employee Number:	T100
Work Phone:	789785

Courses Taught
No courses assigned.

[Back to List](#) [Delete Teacher](#)

3. Add New Teacher:

Add New Teacher

Name:
Saahil Sayed

Hire Date:
01-01-2013

Subject:
MATHS

Employee Number:
T999999

Work Phone:
789785

[Add Teacher](#)

Teacher added successfully!

[← Back to Teacher List](#)

4. Delete Teacher:

Delete Teacher

Are you sure you want to delete **Sufiyaan**? This action cannot be undone!

[Yes, Delete](#) [Cancel](#)

Teacher successfully deleted.

5. Try to Add Teacher with Missing Fields

Add New Teacher

Name:

Hire Date:

Subject:

Employee Number:

Work Phone:

[Add Teacher](#)

[← Back to Teacher List](#)

Please fill out this field.

Student API

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-e1f6565bb5702ab90e8fcfd57491d5f-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>
```

Course API

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
    }
  ]
}
```

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
}
```

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}

```
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
}
```

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
}
```

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": "00-4bf62a302816f9077eff1fb4ad6f5223-0745b112bf15d60a-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>

```