API Session – Chapter 4

- Play with Own APIs -

# API Endpoints and Operations

## GET /students

* **Description:** Retrieves a list of all students.
* **Request:** No request body required.
* **Response:** **Success (200 OK)**

JSON

[

{

"id": 1,

"name": "John Doe",

"rollNumber": "12345",

"email": "johndoe@example.com"

},

// ... other students

]

* **Error (500 Internal Server Error):** Error message indicating failure to retrieve students.

## POST /students

* **Description:** Creates a new student.
* **Request Payload**

JSON

{

"name": "Jane Smith",

"rollNumber": "67890",

"email": "janesmith@example.com"

}

* **Response: Success (201 Created)**

JSON

{

"id": 6, // Newly assigned ID

"name": "Jane Smith",

"rollNumber": "67890",

"email": "janesmith@example.com"

}

* **Error (400 Bad Request):** Invalid request body or missing required fields.
* **Error (500 Internal Server Error):** Error creating student.

## PUT /students/:id

* **Description:** Updates an existing student.
* **Request:**

JSON

{

"name": "Updated Name",

"email": "updated@example.com"

}

* **Response:** **Success (200 OK)**

JSON

{

"id": 1,

"name": "Updated Name",

"rollNumber": "12345",

"email": "updated@example.com"

}

* **Error (400 Bad Request):** Invalid request body or missing required fields.
* **Error (404 Not Found):** Student not found.
* **Error (500 Internal Server Error):** Error updating student.

## PATCH /students/:id

* **Description:** Partially updates an existing student.
* **Request:**

JSON

{

"name": "Updated Name"

}

* **Response:** **Success (200 OK)**

JSON

{

"id": 1,

"name": "Updated Name",

"rollNumber": "12345",

"email": "johndoe@example.com"

}

* **Error (400 Bad Request):** Invalid request body or missing required fields.
* **Error (404 Not Found):** Student not found.
* **Error (500 Internal Server Error):** Error updating student.

## DELETE /students/:id

* **Description:** Deletes an existing student.
* **Request:** No request body required.
* **Response:** **Success (204 No Content):** No content returned.
* **Error (404 Not Found):** Student not found.
* **Error (500 Internal Server Error):** Error deleting student.

## Note:

* Replace :id with the actual student ID in the URL.
* Consider adding additional fields to the student object as needed.
* Implement proper error handling and validation.
* This outline provides a basic structure for your API. You can customize it further based on your specific requirements and design considerations.