

REST API

Build a REST API using Node, Express and MongoDB. The API deals with user data. The schema of a user is given below:

Name of Field	Type	Additional Requirements
name	String	Required field
age	Number	Not necessarily a required field. Minimum age is 10 years.
hobbies	String	Not necessarily a required field
phno	Number	Not necessarily a required field
email	String	Required field, and length of email should be at least 10 characters

Whenever we request/send data, appropriate actions are performed in the database. We send/receive data through this API by the following paths and type of requests.

Type of HTTP Request	Route	Response (if request is successful)	Action
GET	/users	JSON of all users	Fetches all users data from database
GET	/users/:id	JSON of the user having that id	Fetches a particular user of that id from the database
POST	/users	A message displaying "Creation Successful"	Creates a new user in the database, with the passed data
DELETE	/users	A message displaying "Deletion of all users is successful"	Deletes all users from the database
DELETE	/users/:id	A message displaying "Deletion Successful"	Deletes the particular user of that id from the database
PATCH	/users/:id	A message displaying "Updation Successful"	Updates the data of the particular user of that id in the database, using the passed data

If an error comes in any of the operations, it should be displayed as a message (response from that endpoint)

For example: In the POST request, if sent data doesn't contain a name field, then it should show an error. (Because in the schema it is said to be a required field).

You have to submit a zip file of the screenshots of output, code and README file showing how to run the application.

Note:

1. If you want to test your API, use an application called **Postman** or a vscode extension called **REST Client**. We can only make GET requests through the browser by entering the API endpoint as the URL.
2. If any statement feels ambiguous, you can make your own assumptions, also stating them in the code and README file.

Resources

Basics of **NodeJS** and **ExpressJS** have been taught in IWP course in 5th semester, but if you want to start new, please follow these links:

[Installation of NodeJS -Video](#)

[Getting Started with Node JS -Video](#)

[What is NPM? | Node JS -Video](#)

[Express in Node js -Video](#)

MongoDB is a NoSQL Database. Basically it can have unstructured data unlike tables in SQL.

[Installation and Basics of MongoDB - Video](#)

[Install MongoDB — MongoDB Manual - Website](#)

[Install mongosh — MongoDB Shell - Website](#)

Mongoose is an ODM(Object Document Mapper) for MongoDB. It is used to connect NodeJS and MongoDB with straightforward syntax.

[Mongoose Crash Course - Video](#)

[Mongoose Documentation - Website](#)

REST API is a systematic way of communication between server and client.

[Basics of REST - Video](#)

[A CRUD REST Application - Video](#)

Postman is an API testing application

[Postman API tutorial for beginners - Video](#)

REST Client is a VSCode extension to make API calls right from the editor.

[REST Client - Visual Studio Marketplace - Website](#)