#Module\_8\_Published

**text-instructions-module-8:**

GitHub Link: <https://github.com/Apollo-Level2-Web-Dev/Level2-Batch4-PH-University-Server/tree/mastering-mongoose>

Installation: <https://blog.logrocket.com/linting-typescript-eslint-prettier>

In this module, you will gain an overview of the Mongoose library and its role in working with MongoDB databases. You will learn how to install and set up Express, Mongoose, TypeScript, dotenv, and CORS for your project. By installing prettier-ts-node-dev, you'll be able to automatically fix any formatting issues in your code, while Installing ESLint will help you identify and address errors in your codebase.

The module will also cover software design patterns, specifically comparing the MVC (Model-View-Controller) pattern with the modular pattern, enabling you to choose the most suitable approach for organizing and structuring your application. Additionally, you will explore creating interfaces to define object structures and behaviors in your code.

To apply the concepts learned, you will create a schema for a student, defining the necessary properties and relationships. Following that, you will learn how to create routes, services, and controllers to handle student-related requests. Finally, you will be encouraged to refactor your existing schema, leveraging the knowledge gained throughout the module, to enhance its design and implementation.

**8-1 Introduction to mongoose:**

Mongoose is a powerful object data modeling (ODM) library for MongoDB.

MongoDB accept any types of Data.so don’t accept any types of data we use mongoose.

Kono senabahinir camp e jodi ami dokte chai tahloe amake securityman check korbe.If I valid then amake entry dibe.here securityman is mongoose & senabahini camp is MongoDB.

j types er data ami mongoose e set kore dibo se types er data jodi client na patai tahole sei data t MongoDB te mongoose jete dibena.

Mongooses is like a layer of MongoDB.so here we use same type of method we use in MongoDB.

MongoDB🡪find(), findOne(),count(),…

Mongoose-🡪 Model.find(),Model.findOne(),Model.create(),…

Why we use mongoose ?

Mongoose use for:

Schema definition,data validation,model creation,…

**8-2 Installing express , mongoose, typescript, dotenv ,cors:**

1st e akti folder create kore code block e open kore then npm init -y like package.json file create korbo.

Abar npm install express die express install korbo.

tarpor mongoose er quick start teke npm install mongoose –save ata die mongoose install korbo

Typescript install korbo dev dependency akare coz sheshmesh typescript javascript e convert hobe npm install typescript --save-dev

Cors install korbo using npm i cors

Environment variable er jonno install dibo npm i dotenv

Typescript er akti json file create korar jonno install dibo tsc -init jeti tscconfig.json create korbe

Tsconfig.json file er rootDir hobe “./src” & outDir hobe “./dist”.then akti src floder create kore app.ts file create korbo.

Express teke hello world copy kore app.ts file e bosie dibo.abar node die run korbo but node typescript run korte parena.so ts file k amara js file e convert korbo.abar package.json er script e akti build property add korbo--🡪”build”:”tsc”-🡪then amara app k run korbo writing npm run build.so akti dist folder & 1t app.js file create hjobe.

Abar server run hobe by writing node ./dist/app.js

Server.ts file src te create kore sekane app.ts teke listen part cut kore bosie dibo.abar mongoose teke getting started part t copy kore server.ts e bosie dibo