EXPERIMENT NO. 7 - MongoDB

Name of Student	**Sneha Patra**
Class Roll No	**D15A_40**
D.O.P.	**13/03/2025**
D.O.S.	**20/03/2025**
Sign and Grade	

Aim: To study CRUD operations in MongoDB

OVERVIEW OF TASKS PERFORMED :

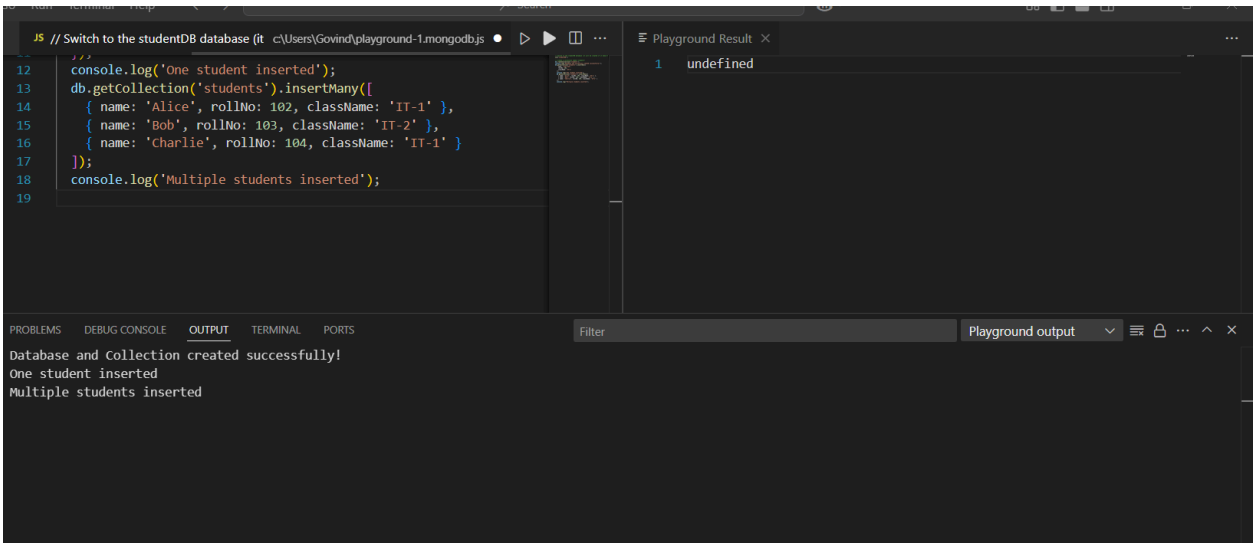
The experiment involves creating a student database for the IT department with fields Name, Roll No, and Class Name. A single student record was inserted, followed by multiple student entries at once. Queries were performed to filter students by class, retrieve students with a specific roll number, update a student's roll number, and delete a specific student's entry.

Additionally, RESTful APIs were implemented using Node.js, Express, and Mongoose to manage student data. The server was connected to MongoDB, and endpoints were created to retrieve all students, get details of a student by ID, add a new student, update student details, and delete a student by ID. The student schema included attributes name, age, and grade for data storage.

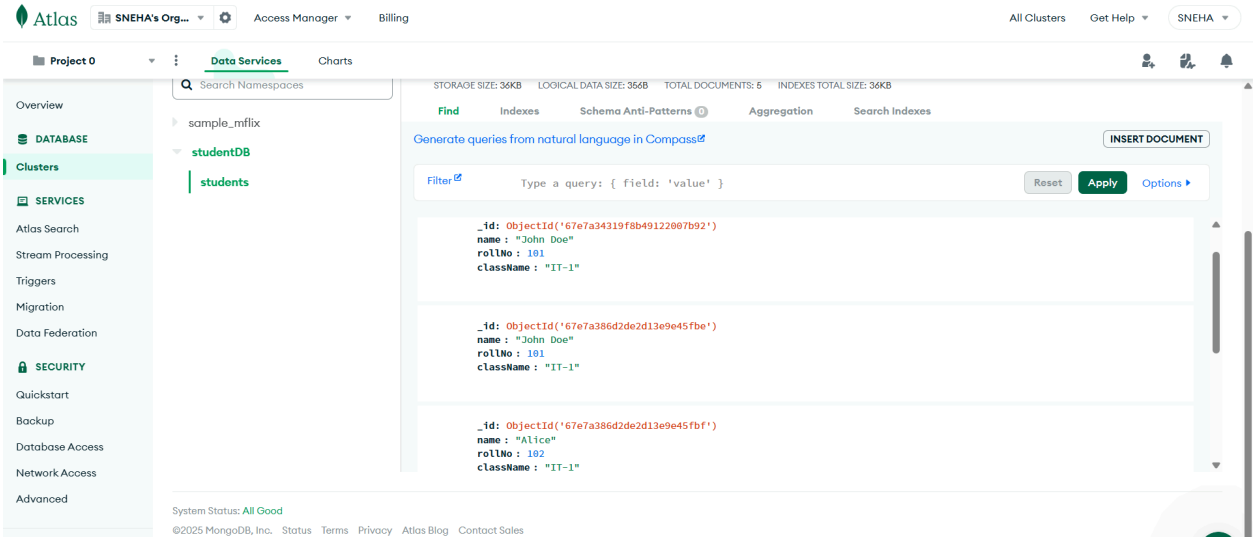
GitHub Link: https://github.com/Sneha0321/WebX_Exp_7

Output:

1. Create a new database to storage student details of IT dept(Name, Roll no, class name) and perform the following on the database

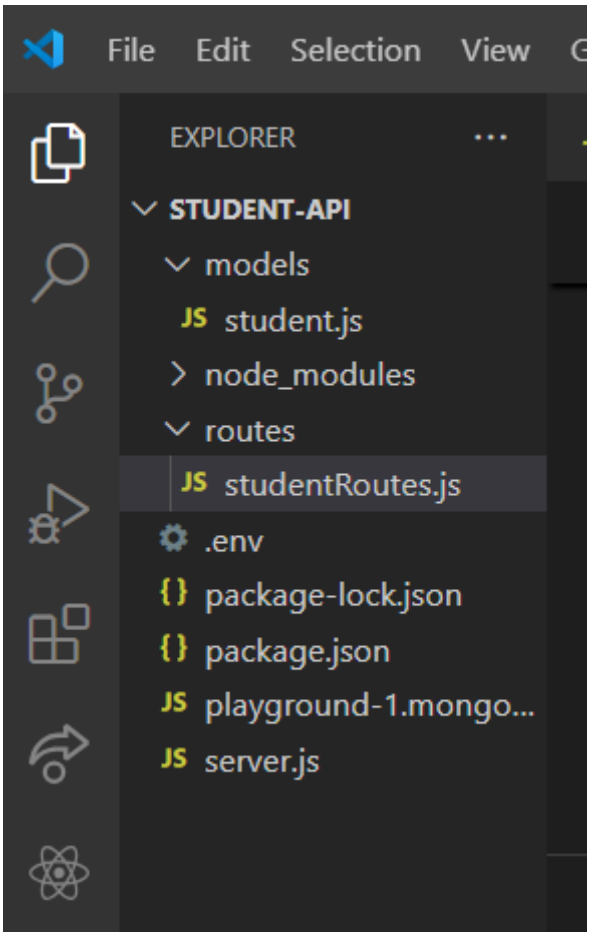


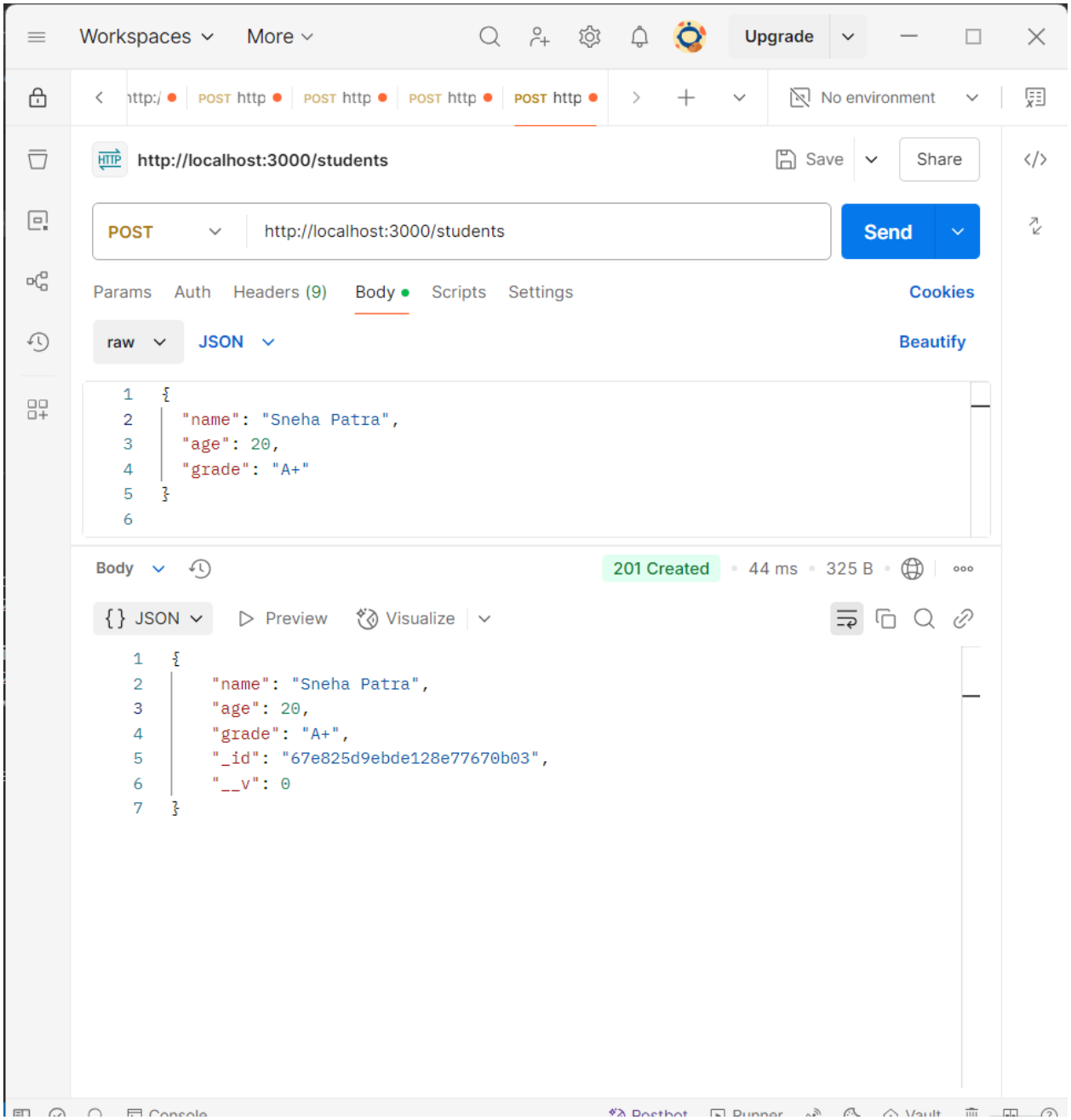
- **Insert One Student**



2. Create a set of RESTful endpoints using Node.js, Express, and Mongoose for handling student data operations.

Folder Structure:





Conclusion:

In this experiment, we successfully implemented CRUD operations in MongoDB to manage student data. We also developed RESTful APIs using Node.js, Express, and Mongoose to perform these operations efficiently. This experiment demonstrated the practical application of MongoDB in managing databases and how RESTful APIs interact with the database for seamless data retrieval and modification.