ITIS 5166
Network-Based Application Development

Integrate a MongoDB Database

Integrate Database with Express App

o **Use a native driver for the database**
  - use the database's native language
  - better performance

o **Use an ORM (object relational model) or ODM (object data model)**
  - adds an abstract layer
  - represents the website's data as JavaScript objects
  - write database queries using object oriented semantics

o **To integrate a MongoDB database, we can use**
  - MongoDB Node driver
  - Mongoose ODM

MongoDB Node Driver

- Provides an API to allow Node applications to access MongoDB
  - connect to MongoDB
  - perform CRUD operations

- Uses asynchronous API for communication between the application and the database
  - Supports both callback and promises
  - If a callback function is not passed, a promised will be returned

[Node Driver reference document](#)

Use MongoDB Node Driver

o Install mongodb package

o Connect to a MongoDB server
  ◦ MongoClient.connect(url, option)
  ◦ url: mongodb://localhost:27017

o CRUD operations
  ◦ find()
  ◦ findOne()
  ◦ insertOne()
  ◦ findOneAndUpdate()
  ◦ deleteOne()

Demo: Integrate MongoDB using Node Driver