

Name: Muhammad Abdul Qadir

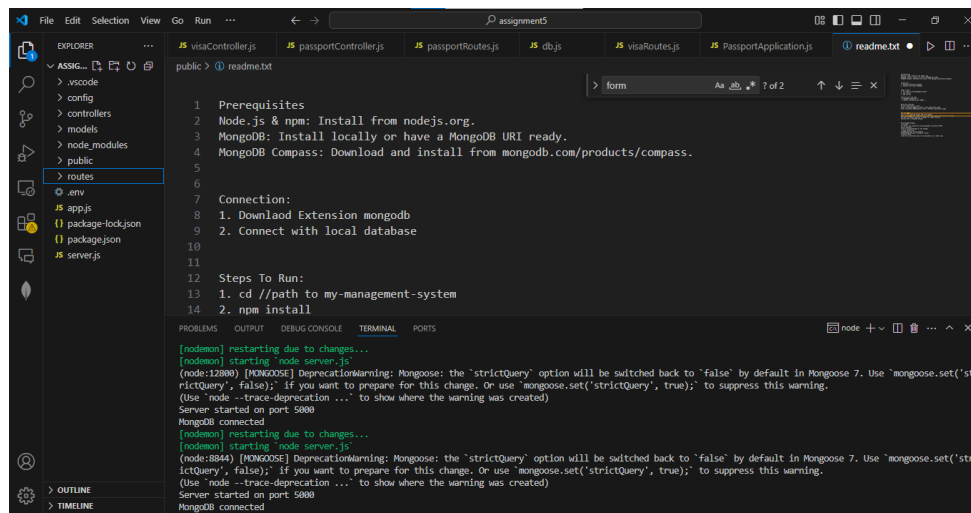
Project:

Digital Visa and Passport Processing System using Node.js, Express.js, and MongoDB

Setup And Connection

All Steps For Connection and Prerequisites are defined in the readme file in the zip file and

This Report will Be consist of all the Screenshots of Working functionalities



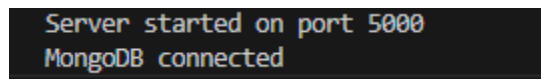
The screenshot shows a VS Code editor with a project named 'assignment5'. The Explorer sidebar on the left shows the file structure: public (containing readme.txt), routes, .env, app.js, package-lock.json, package.json, and server.js. The main editor area displays the 'readme.txt' file with the following content:

```
1 Prerequisites
2 Node.js & npm: Install from nodejs.org.
3 MongoDB: Install locally or have a MongoDB URI ready.
4 MongoDB Compass: Download and install from mongodb.com/products/compass.
5
6
7 Connection:
8 1. Download Extension mongodb
9 2. Connect with local database
10
11
12 Steps To Run:
13 1. cd //path to my-management-system
14 2. npm install
```

Below the editor, the TERMINAL panel shows the following output:

```
[nodeemon] restarting due to changes...
[nodeemon] starting "node server.js"
(node:12800) [MONGODB] DeprecationWarning: Mongoose: the 'strictQuery' option will be switched back to 'false' by default in Mongoose 7. Use 'mongoose.set('strictQuery', false);' if you want to prepare for this change. Or use 'mongoose.set('strictQuery', true);' to suppress this warning.
(Use 'node --trace-deprecation ...' to show where the warning was created)
Server started on port 5000
MongoDB connected
[nodeemon] restarting due to changes...
[nodeemon] starting "node server.js"
(node:8844) [MONGODB] DeprecationWarning: Mongoose: the 'strictQuery' option will be switched back to 'false' by default in Mongoose 7. Use 'mongoose.set('strictQuery', false);' if you want to prepare for this change. Or use 'mongoose.set('strictQuery', true);' to suppress this warning.
(Use 'node --trace-deprecation ...' to show where the warning was created)
Server started on port 5000
MongoDB connected
```

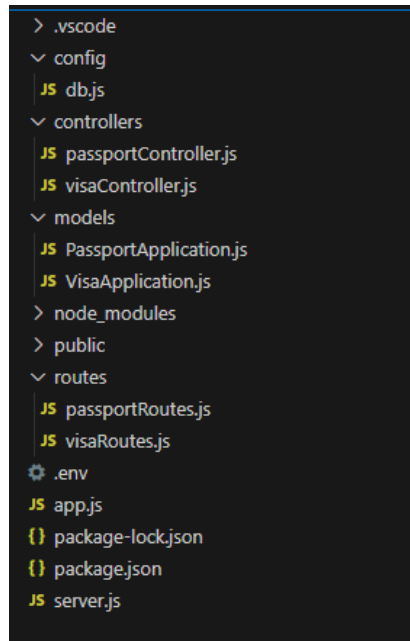
1)Connection



```
Server started on port 5000
MongoDB connected
```

2)Structure

Key Components:



1. .vscode/
 - VSCode workspace/config files (editor-specific settings).
2. config/
 - Contains db.js which sets up database connections (e.g., MongoDB).
3. controllers/
 - passportController.js & visaController.js: Handle business logic for passport/visa routes (e.g., CRUD operations).
4. models/
 - PassportApplication.js & VisaApplication.js: Define Mongoose schemas for database collections.
5. routes/
 - passportRoutes.js & visaRoutes.js: Define API endpoints (e.g., /api/passport) and map them to controllers.
6. public/
 - My Actual Front End Website (Html, CSS and Javascript)

Root Files:

- `.env`: A secret note file that stores important settings (like where the database is, or which port to use).
- `app.js`: The "brain" of the app—sets up rules, connects parts, and tells the app how to work.
- `server.js`: Starts the app—like pressing the "ON" button for the app to run.
- `package.json` & `package-lock.json`: A list of all the tools and libraries the app needs to work.

Key Features

1. Modular Design:

- The app is split into **small, focused parts**:
 - *Controllers*: Handle tasks (like adding or deleting data).
 - *Models*: Define how data is stored (like a blueprint for a database).
 - *Routes*: Decide which URLs trigger which actions (like `/login` or `/signup`).

2. Database Integration:

- Uses **Mongoose** (in the `models/` folder) to talk to a database (MongoDB). Think of it as a translator that helps the app save and fetch data neatly.

To Run:

Prerequisites

1) Node.js and npm installed

2) A MongoDB URI (from MongoDB Atlas or a local instance)

3) MongoDB Compass installed

Steps To Run:

- 1) cd /path/to/your/project in cmd
- 2) run-->npm install
- 3) Install Mongoddb Extension and connect to the local Database
- 4) Also open Mongoddb Compass with the same connection details
- 5) run-->npm run dev

Terminal:

Server started on port 5000

MongoDB connected

Next Step:

then run these forms and check the output in the Website as the visa and passport applications are shown there as well and in MongoDB Compass Database

Links:

Passport Form--> <http://localhost:5000/passport.html>

Visa Form--> <http://localhost:5000/visa.html>

Output Screenshots:

Passport Form

localhost:5000/passport.html

Passport Application

First Name

Last Name

Date of Birth

mm/dd/yyyy

Gender

Select Gender

Passport Type

Select Type

Email

Phone

Address

Submit Passport Application

Passport Applications

Search by name...

Name A--Z

Name	Passport Type	Date of Birth	Status	Actions
ahmed kkkk	regular	5/13/2025	Pending	<div>EditDelete</div>

MongoDB Database

Compass

localhost:27017

visaapplications

admin

startup_log

passportapplicatic

My Queries

CONNECTIONS (1)

Search connections

localhost:27017

- admin
- config
- local
- passportVisaDb
 - passportapplications
 - visaapplications

localhost:27017 > passportVisaDb > passportapplications

Documents 0 Aggregations Schema Indexes 2 Validation

Type a query: { field: 'value' } or [Generate query](#)

ADD DATA EXPORT DATA UPDATE DELETE

```
{
  "_id": ObjectId('682a1721484cf978a62480ba'),
  "firstName": "ahmed",
  "lastName": "kkkk",
  "dateOfBirth": "2025-05-13T00:00:00.000+00:00",
  "gender": "M",
  "passportType": "regular",
  "email": "sheikhhoof78@gmail.com",
  "phone": "999",
  "address": "Shadab Colony Temple Road Lahore 7/E Block",
  "status": "Pending",
  "createdAt": "2025-05-18T17:21:37.443+00:00",
  "updatedAt": "2025-05-18T17:27:26.855+00:00",
  "__v": 0
}
```

Visa Form

localhost:5000/visa.html

Visa Application

First Name

Last Name

Nationality

Passport Number

Visa Type

Duration (days)

Purpose of Visit

Submit Visa Application

Visa Applications

Search by name...

Name A→Z

Name	Nationality	Visa Type	Duration	Status	Actions
Aslam Quraishi	Indian	student	200 days	Pending	Edit Delete
Beast44 Aslam	Pakistani	business	110 days	Pending	Edit Delete

Mongo DB Database

Compass

localhost:27017

visaapplications

admin

startup_log

passportapplications

passport

localhost:27017 > passportVisaDb > visaapplications

Documents 1 Aggregations Schema Indexes 2 Validation

Type a query: { field: 'value' } or [Generate query](#) +

ADD DATA EXPORT DATA UPDATE DELETE 25 1-

```
{
  "_id": ObjectId("682a111a106585a764207945"),
  "firstName": "Beast44",
  "lastName": "Aslam",
  "nationality": "Pakistani",
  "passportNumber": "2222",
  "visaType": "business",
  "duration": 110,
  "purpose": "nothing",
  "status": "Pending",
  "createdAt": 2025-05-18T16:55:54.800+00:00,
  "updatedAt": 2025-05-18T16:55:54.800+00:00,
  "__v": 0
}
```

```
{
  "_id": ObjectId("682a117a106585a76420794a"),
  "firstName": "Aslam",
  "lastName": "Quraishi",
  "nationality": "Indian",
  "passportNumber": "333",
  "visaType": "student",
  "duration": 200,
  "purpose": "wow",
  "status": "Pending"
}
```