**Full Stack Development with MERN**

**API Development and Integration Report**

| Date | 20-07-2024 |
| --- | --- |
| Team ID | SWTID1720026558 |
| Project Name | Book A Doctor App |
| Maximum Marks |  |

**Project Title:** Book a Doctor App  
**Date:**20-07-2024  
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**Objective**  
The objective of this report is to document the API development progress and key aspects of the backend services implementation for the “Book a Doctor” project.

**Technologies Used**

* **Backend Framework:** Node.js with Express.js
* **Database:** MongoDB

**Project Structure**  
Provide a screenshot of the backend project structure with explanations for key directories and files.

**Key Directories and Files**

1. **/models**
   * Includes Mongoose schemas and models for MongoDB collections.
2. **/routes**
   * Defines the API endpoints and links them to controller functions.
3. **/server.js**
   * Configuration files for database connections, environment variables, etc.

**API Endpoints**  
A summary of the main API endpoints and their purposes:

**Doctor Database query**

* **GET**  - Retrieves all workout plans.
* **POST**  - Creates a new workout plan.

**Equipment**

* **GET** - Retrieves all equipment.
* **POST** - Adds new equipment.

**Integration with Frontend**  
The backend communicates with the frontend via RESTful APIs. Key points of integration include:

* **Data Fetching:** Frontend components make API calls to fetch necessary data for display and interaction.

**Error Handling and Validation**  
Describe the error handling strategy and validation mechanisms:

* **Error Handling:** Centralised error handling using middleware.

**Security Considerations**  
Outline the security measures implemented:

* **Data Encryption:** Encrypt sensitive data at rest and in transit using “.env”.