

Candidate's Name: Shivam Malvade

Deadline: 11th Dec by 2PM

Task Title: Build a Merchant Product Management API with Authentication using nodejs.

Task Description:

Create a backend API that allows merchants to register, log in, and manage their products. The API should include authentication (JWT-based) and provide CRUD operations for managing products.

Functional Requirements:

1. Merchant Registration

- Endpoint: POST /auth/register
- Input: Name, Email, Password
- Output: Confirmation of registration.

2. Merchant Login

- Endpoint: POST /auth/login
- Input: Email, Password
- Output: JWT Token on successful login.

Product Management:

1. Create a Product

- Endpoint: POST /products
- Input: Product Name, Price, Quantity (MerchantID should come from the token).
- Output: Confirmation with created product details.

2. Retrieve All Products

- Endpoint: GET /products
- Input: JWT token in the header.
- Output: List of all products belonging to the authenticated merchant.

3. Update a Product

- Endpoint: PUT /products/:productid
- Input: ProductID (in URL), Updated Product Name, Price, or Quantity.
- Output: Confirmation with updated product details

4. Delete a Product

- **Endpoint:** DELETE /products/:productId
- **Input:** ProductID (in URL).
- **Output:** Confirmation that the product was deleted



Technical Requirements:

- **Authentication:** Implement JWT-based authentication.
 - Use middleware to verify the JWT token and extract the MerchantID for protected routes.
- **Database:** Use **MongoDB** for storing merchants and products.
Collections:
 - merchants: Store merchant details (Name, Email, Password (hashed)).
 - products: Store product details (MerchantID, ProductName, Price, Quantity).
- **Validation:** Validate all inputs:
 - Password strength during registration.
 - Positive numbers for price and quantity.
- **Error Handling:** Gracefully handle:
 - Unauthorized access (invalid/expired token).
 - Product not found.
 - Email already in use during registration.
- **Documentation:**
 - Provide clear documentation for all API endpoints in a simple Markdown file (github/Readme.md).
 - Upload all code to github and share the repo

***Note: The deadline is 48 hours although if you need more extension of time you need to notify 5-6 hours prior the deadline.**



PayME Fintech Solutions

Email: kazi-hr@paymefin.tech

