

Inventory Control System API Documentation

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Authentication

Login

Authenticate user and generate JWT token. Requires no authentication.

Endpoint: `POST /api/auth/login`

Request Body:

```
{
  "identifier": "user@example.com",
  "password": "userPassword123"
}
```

Success Response (200 OK):

```
{
  "status": 200,
  "message": "Login successful",
  "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9..."
}
```

Error Response (401 Unauthorized):

```
{
  "status": 401,
  "message": "Invalid credentials"
}
```

Users

Register User

Creates a new user account in the system. Requires JWT Bearer token with ADMIN role.

Endpoint: `POST /api/users/register`

Request Body:

```
{
  "username": "john_doe",
  "email": "john.doe@example.com",
  "password": "securePassword123",
  "firstName": "John",
  "lastName": "Doe",
  "role": "ADMIN"
}
```

Successful Response (201 Created):

```
{
  "status": 201,
  "message": "User registered successfully",
  "user": {
    "id": 1,
    "username": "john_doe",
    "email": "john.doe@example.com",
    "firstName": "John",
    "lastName": "Doe",
    "role": "ADMIN"
  }
}
```

Failed Response (400 Bad Request):

```
{
  "status": 400,
  "errors": [
    "username: must not be blank",
    "email: must be a valid email address",
    "password: must be at least 8 characters long"
  ]
}
```

Update User

Updates existing user information. Requires JWT Bearer token with OWNER role.

Endpoint: **PUT** `/api/users/update/{userId}`

Request Body:

```
{
  "email": "john.updated@example.com",
  "firstName": "Johnny",
  "lastName": "Doe",
  "role": "USER"
}
```

Successful Response (200 OK):

```
{
  "status": 200,
  "message": "User updated successfully",
  "user": {
    "id": 1,
    "username": "john_doe",
    "email": "john.updated@example.com",
    "firstName": "Johnny",
    "lastName": "Doe",
    "role": "USER"
  }
}
```

Failed Response (404 Not Found):

```
{
  "status": 404,
  "message": "User not found with ID: 1"
}
```

Get User by ID

Retrieves user information by their ID. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/users/{userId}`

Successful Response (200 OK):

```
{
  "status": 200,
  "user": {
    "id": 1,
    "username": "john_doe",
    "email": "john.doe@example.com",
    "firstName": "John",
    "lastName": "Doe",
    "role": "ADMIN"
  }
}
```

Failed Response (404 Not Found):

```
{
  "status": 404,
  "message": "User not found with ID: 1"
}
```

Get All Users

Retrieves a list of all users in the system. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/users/all`

Successful Response (200 OK):

```
{
  "status": 200,
  "users": [
    {
      "id": 1,
      "username": "john_doe",
      "email": "john.doe@example.com",
      "firstName": "John",
      "lastName": "Doe",
      "role": "ADMIN"
    },
    {
      "id": 2,
      "username": "jane_smith",
      "email": "jane.smith@example.com",
      "firstName": "Jane",
      "lastName": "Smith",
      "role": "USER"
    }
  ]
}
```

Delete User

Removes a user from the system. Requires JWT Bearer token with OWNER role.

Endpoint: `DELETE /api/users/delete/{userId}`

Successful Response (200 OK):

```
{
  "status": 200,
  "message": "User with ID: 1 deleted successfully."
}
```

Failed Response (404 Not Found):

```
{
  "status": 404,
  "message": "User not found with ID: 1. Unable to delete non-existent user."
}
```

CSV Operations

Import Products

Imports product data from a CSV file. Requires JWT Bearer token with OWNER role.

Endpoint: `POST /api/csv/import/products`

Request:

- Content-Type: multipart/form-data
- Parameter: file (CSV file)

CSV Format:

```
ID,Name,SKU,Price,Quantity,MinStockLevel,Category,Status,SupplierId,CreatedAt,UpdatedAt
1,Lego City Set,LCS,49.99,50,10,TOYS,ACTIVE,2,2023-09-01T10:00:00,2023-11-01T12:00:00
2,BMW Toy Car,BMWTC,24.99,40,10,TOYS,ACTIVE,1,2023-04-01T10:00:00,2023-11-01T12:00:00
```

Successful Response (200 OK):

```
{
  "status": "success",
  "message": "Products imported successfully.",
  "data": [
    {
      "id": 1,
      "name": "Product A",
      "description": "Description A",
      "price": 29.99,
      "quantity": 100,
      "category": "Electronics"
    },
    {
      "id": 2,
      "name": "Product B",
      "description": "Description B",
      "price": 19.99,
      "quantity": 50,
      "category": "Books"
    }
  ]
}
```

Failed Response (400 Bad Request):

```
{
  "status": "error",
  "message": "The uploaded file is empty."
}
```

Failed Response (500 Internal Server Error):

```
{
  "status": "error",
  "message": "Failed to import products."
}
```

Export Products

Exports product data to a CSV file. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/csv/export/products`

Request Body (optional):

```
"D:\exports\products.csv"
```

Successful Response (200 OK):

```
{
  "status": "success",
  "message": "Products exported successfully.",
  "filePath": "D:\JAVA\inventory-control-system-exports\products-1637012345678.csv"
}
```

Failed Response (500 Internal Server Error):

```
{
  "status": "error",
  "message": "Failed to export products."
}
```

Import Orders

Imports order data from a CSV file. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/csv/import/orders`

Request:

- Content-Type: multipart/form-data
- Parameter: file (CSV file)

CSV Format:

```
OrderID,ProductId,SupplierId,Quantity,TotalPrice,CreatedAt,Status
1,1,1,10,2499.99,2024-11-07T10:30:00,PENDING
2,2,2,5,1699.98,2024-11-08T14:15:00,COMPLETED
```

Successful Response (200 OK):

```
{
  "status": "success",
  "message": "Orders imported successfully.",
  "data": [
    {
      "id": 1,
      "orderDate": "2024-03-21",
      "customerId": 100,
      "status": "PENDING",
      "totalAmount": 149.99
    },
    {
      "id": 2,
      "orderDate": "2024-03-22",
      "customerId": 101,
      "status": "COMPLETED",
      "totalAmount": 299.99
    }
  ]
}
```

Failed Response (400 Bad Request):

```
{
  "status": "error",
  "message": "The uploaded file is empty."
}
```

Failed Response (500 Internal Server Error):

```
{
  "status": "error",
  "message": "Failed to import orders."
}
```

Export Orders

Exports order data to a CSV file. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/csv/export/orders`

Request Body (optional):

```
"D:\exports\orders.csv"
```

Successful Response (200 OK):

```
{
  "status": "success",
  "message": "Orders exported successfully.",
  "filePath": "D:\JAVA\inventory-control-system-exports\orders-1637012345678.csv"
}
```

Failed Response (500 Internal Server Error):

```
{
  "status": "error",
  "message": "Failed to export orders."
}
```

Suppliers

Create Supplier

Create a new supplier. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/suppliers/create`

Request Body:

```
{
  "name": "Supplier Name",
  "email": "supplier@example.com",
  "phone": "+1234567890",
  "address": "Supplier Address",
  "contactPerson": "John Doe"
}
```

Success Response (201 Created):

```
{
  "status": 201,
  "message": "Supplier created successfully",
  "supplier": {
    "id": 1,
    "name": "Supplier Name",
    "email": "supplier@example.com",
    "phone": "+1234567890",
    "address": "Supplier Address",
    "contactPerson": "John Doe"
  }
}
```

Error Response (400 Bad Request):

```
{
  "status": 400,
  "errors": [
    "name: must not be blank",
    "email: must be a valid email"
  ]
}
```

Update Supplier

Update an existing supplier's details. Requires JWT Bearer token with OWNER role.

Endpoint: **PUT** `/api/suppliers/update/{id}`

Request Body:

```
{
  "name": "Updated Supplier Name",
  "email": "updated@example.com",
  "phone": "+1987654321",
  "address": "Updated Address",
  "contactPerson": "Jane Doe"
}
```

Success Response (200 OK):

```
{
  "status": 200,
  "message": "Supplier updated successfully",
  "supplier": {
    "id": 1,
    "name": "Updated Supplier Name",
    "email": "updated@example.com",
    "phone": "+1987654321",
    "address": "Updated Address",
    "contactPerson": "Jane Doe"
  }
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Supplier not found"
}
```

Get Supplier by ID

Retrieve supplier details by ID. Requires JWT Bearer token with OWNER role.

Endpoint: **GET** `/api/suppliers/{id}`

Success Response (200 OK):

```
{
  "status": 200,
  "supplier": {
    "id": 1,
    "name": "Supplier Name",
    "email": "supplier@example.com",
    "phone": "+1234567890",
    "address": "Supplier Address",
    "contactPerson": "John Doe"
  }
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Supplier not found"
}
```

Get All Suppliers

Retrieve all suppliers. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/suppliers/all`

Success Response (200 OK):

```
{
  "status": 200,
  "suppliers": [
    {
      "id": 1,
      "name": "Supplier 1",
      "email": "supplier1@example.com",
      "phone": "+1234567890",
      "address": "Address 1",
      "contactPerson": "John Doe"
    },
    {
      "id": 2,
      "name": "Supplier 2",
      "email": "supplier2@example.com",
      "phone": "+1987654321",
      "address": "Address 2",
      "contactPerson": "Jane Doe"
    }
  ]
}
```

Delete Supplier

Delete a supplier. Requires JWT Bearer token with OWNER role.

Endpoint: `DELETE /api/suppliers/delete/{id}`

Success Response (200 OK):

```
{
  "status": 200,
  "message": "Supplier deleted successfully with ID: 1"
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Supplier not found with ID: 1"
}
```

Products

Create Product

Create a new product in the inventory. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/products/create`

Request Body:

```
{
  "name": "Product Name",
  "description": "Product Description",
  "price": 99.99,
  "quantity": 100,
  "category": "Electronics",
  "supplierId": 1
}
```

Success Response (201 Created):

```
{
  "status": 201,
  "message": "Product created successfully",
  "product": {
    "id": 1,
    "name": "Product Name",
    "description": "Product Description",
    "price": 99.99,
    "quantity": 100,
    "category": "Electronics",
    "supplierId": 1
  }
}
```

Error Response (400 Bad Request):

```
{
  "status": 400,
  "errors": [
    "name: must not be blank",
    "price: must be greater than 0"
  ]
}
```

Update Product

Update an existing product's details. Requires JWT Bearer token with OWNER role.

Endpoint: **PUT** `/api/products/update/{id}`

Request Body:

```
{
  "name": "Updated Product Name",
  "description": "Updated Description",
  "price": 149.99,
  "quantity": 150,
  "category": "Electronics",
  "supplierId": 1
}
```

Success Response (200 OK):

```
{
  "status": 200,
  "message": "Product updated successfully",
  "product": {
    "id": 1,
    "name": "Updated Product Name",
    "description": "Updated Description",
    "price": 149.99,
    "quantity": 150,
    "category": "Electronics",
    "supplierId": 1
  }
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Product not found with ID: 1"
}
```

Get Product by ID

Retrieve product details by ID. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/products/{id}`

Success Response (200 OK):

```
{
  "status": 200,
  "product": {
    "id": 1,
    "name": "Product Name",
    "description": "Product Description",
    "price": 99.99,
    "quantity": 100,
    "category": "Electronics",
    "supplierId": 1
  }
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Product not found with ID: 1"
}
```

Get All Products

Retrieve all products in the inventory. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/products/all`

Success Response (200 OK):

```
{
  "status": 200,
  "products": [
    {
      "id": 1,
      "name": "Product 1",
      "description": "Description 1",
      "price": 99.99,
      "quantity": 100,
      "category": "Electronics",
      "supplierId": 1
    },
    {
      "id": 2,
      "name": "Product 2",
      "description": "Description 2",
      "price": 149.99,
      "quantity": 150,
      "category": "Electronics",
      "supplierId": 1
    }
  ]
}
```

Delete Product

Delete a product from the inventory. Requires JWT Bearer token with OWNER role.

Endpoint: **DELETE** `/api/products/delete/{id}`

Success Response (200 OK):

```
{
  "status": 200,
  "message": "Product deleted successfully with ID: 1"
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Product not found with ID: 1"
}
```


Orders

Create Order

Create a new order. Requires JWT Bearer token with OWNER role.

Endpoint: **POST** `/api/orders/create`

Request Body:

```
{
  "customerId": 1,
  "products": [
    {
      "productId": 1,
      "quantity": 2
    },
    {
      "productId": 2,
      "quantity": 1
    }
  ],
  "shippingAddress": "123 Main St, City, Country",
  "orderStatus": "PENDING"
}
```

Success Response (201 Created):

```
{
  "status": 201,
  "message": "Order created successfully",
  "order": {
    "id": 1,
    "customerId": 1,
    "products": [
      {
        "productId": 1,
        "quantity": 2
      },
      {
        "productId": 2,
        "quantity": 1
      }
    ],
    "totalAmount": 349.97,
    "orderDate": "2024-11-22T10:30:00",
    "shippingAddress": "123 Main St, City, Country",
    "orderStatus": "PENDING"
  }
}
```

Error Response (400 Bad Request):

```
{
  "status": 400,
  "errors": [
    "customerId: must not be null",
    "products: must not be empty"
  ]
}
```

Update Order

Update an existing order's details. Requires JWT Bearer token with OWNER role.

Endpoint: **PUT** `/api/orders/update/{id}`

Request Body:

```
{
  "productId": 6,
  "supplierId": 1,
  "quantity": 40,
  "status": "COMPLETED"
}
```

Success Response (200 OK):

```
{
  "message": "Order updated successfully",
  "status": 200,
  "order": {
    "id": 2,
    "product": {
      "id": 6,
      "name": "Product 2",
      "sku": "SKU123472",
      "price": 100.5,
      "quantity": 50,
      "minStockLevel": 10,
      "category": "ELECTRONICS",
      "status": "ACTIVE",
      "supplier": {
        "id": 2,
        "name": "Supplier Name 2",
        "email": "supplier2@yopmail.com",
        "phoneNumber": "1234567892",
        "address": "123 Street, City",
        "companyName": "Supplier2 Company"
      }
    },
    "createdAt": "2024-11-21T20:58:06.667868"
  },
  "quantity": 40,
  "totalPrice": 4020,
  "createdAt": "2024-11-21T20:55:21.582291",
  "status": "COMPLETED"
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Order not found with ID: 1"
}
```

Get Order by ID

Retrieve order details by ID. Requires JWT Bearer token with OWNER role.

Endpoint: `GET /api/orders/{id}`

Success Response (200 OK):

```
{
  "status": 200,
  "order": {
    "id": 1,
    "product": {
      "id": 1,
      "name": "Product 1",
      "sku": "SKU00001",
      "price": 100.5,
      "quantity": 50,
      "minStockLevel": 20,
      "category": "BOOKS",
      "status": "ACTIVE",
      "supplier": {
        "id": 1,
        "name": "Supplier Name 1",
        "email": "supplier1@yopmail.com",
        "phoneNumber": "1234567891",
        "address": "123 Street, City",
        "companyName": "Supplier1 Company"
      }
    },
    "createdAt": "2024-11-21T20:27:20.970307"
  },
  "quantity": 500,
  "totalPrice": 50250,
  "createdAt": "2024-11-21T20:53:34.241111",
  "status": "PENDING"
}
```

Error Response (404 Not Found):

```
{
  "status": 404,
  "message": "Order not found with ID: 1"
}
```

Get All Orders

Retrieve all orders. Requires JWT Bearer token with OWNER role.

Endpoint: **GET** `/api/orders/all`

Success Response (200 OK):

```
{
  "orders": [
    {
      "id": 1,
      "product": {
        "id": 1,
        "name": "Product 1",
        "sku": "SKU00001",
        "price": 100.5,
        "quantity": 50,
        "minStockLevel": 20,
        "category": "BOOKS",
        "status": "ACTIVE",
        "supplier": {
          "id": 1,
          "name": "Supplier Name 1",
          "email": "supplier1@yopmail.com",
          "phoneNumber": "1234567891",
          "address": "123 Street, City",
          "companyName": "Supplier1 Company"
        },
        "createdAt": "2024-11-21T20:27:20.970307"
      },
      "quantity": 500,
      "totalPrice": 50250,
      "createdAt": "2024-11-21T20:53:34.241111",
      "status": "PENDING"
    },
  ],
}
```

```

{
  "id": 2,
  "product": {
    "id": 6,
    "name": "Product 2",
    "sku": "SKU123472",
    "price": 100.5,
    "quantity": 50,
    "minStockLevel": 10,
    "category": "ELECTRONICS",
    "status": "ACTIVE",
    "supplier": {
      "id": 2,
      "name": "Supplier Name 2",
      "email": "supplier2@yopmail.com",
      "phoneNumber": "1234567892",
      "address": "123 Street, City",
      "companyName": "Supplier2 Company"
    },
    "createdAt": "2024-11-21T20:58:06.667868"
  },
  "quantity": 40,
  "totalPrice": 4020,
  "createdAt": "2024-11-21T20:55:21.582291",
  "status": "COMPLETED"
},
"status": 200
}

```

Delete Order

Delete an order. Requires JWT Bearer token with OWNER role.

Endpoint: **DELETE** `/api/orders/delete/{id}`

Success Response (200 OK):

```

{
  "status": 200,
  "message": "Order deleted successfully"
}

```

Error Response (404 Not Found):

```

{
  "status": 404,
  "message": "Order not found with ID: 1"
}

```