

# Trident Biometric System

## User Stories

### 1. Entities:

#### 1. User Entity:

- As a system, I want to create a User entity to store user data including name, username, password, contact, status, and role.
- As a system, I want to establish a relation with Centre entity so that I can access all centres registered under a given username.

#### 2. Centre Entity:

- As a system, I want to create a Centre entity to store centre data including center code.
- As a system, I want to establish a relation with Batch entity so that I can access all batches registered under a given centre code.

#### 3. Batch Entity:

- As a system, I want to create a Batch entity to store batch data including batch code.
- As a system, I want to establish a relation with Student entity so that I can access all students registered under a given batch code.

#### 4. Student Entity:

- As a system, I want to create a Student entity to store student data including name, Aadhar number, fingerprints, iris, and batch code for reference.

### 2. Login:

- As a user, I want to be able to log in with my username and password to access the system securely.
- As a system, I want to generate a JWT token upon successful login for authentication purposes.

### 3. Admin Panel:

#### 1. Title: Register New User

**Story:** As an admin of the ePharmacy backend system, I want to be able to create and register a new user with their details, So that they can access the system and perform necessary actions.

### **Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Register User" section, Then I should see a form where I can enter the details of the new user.
2. Given that I am registering a new user, When I enter the user's full name, username, email address, and password, Then I should be able to submit the form.
3. Given that I have submitted the user registration form, When the information is successfully validated and saved to the database, Then I should receive a confirmation message indicating that the user has been registered successfully.
4. Given that I have registered a new user, When the user tries to log in using the provided username and password, Then they should be granted access to the backend system.
5. Given that I am registering a new user, When I try to submit the form without providing mandatory information, Then I should receive an error message prompting me to fill in the required fields.
6. Given that I am registering a new user, When I enter an email address for the user, Then it should be in the correct format and unique in the system.
7. Given that I am registering a new user, When I enter a password for the user, Then it should meet the password complexity requirements set by the system.
8. Given that I am registering a new user, When I enter a username for the user, Then it should be unique and not already registered in the system.
9. Given that I have successfully registered a new user, When I view the list of users in the system, Then I should see the newly registered user listed among the active users.

### **2. Title: Fetch Users List**

**Story:** As an admin of the ePharmacy backend system, I want to be able to fetch a list of all users registered in the database, So that I can view and manage user accounts as needed.

### **Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Fetch Users" section, Then I should see an option to retrieve the list of users.
2. Given that I have selected the option to fetch users, When I submit the request, Then the system should retrieve and display a list of all users registered in the database.
3. Given that the list of users is displayed, When I view each user entry, Then I should see their full name, username, email address, contact information, and role.

4. Given that I am viewing the list of users, When I want to filter the users based on specific criteria, Then I should be able to apply filters such as role or active/inactive status.
5. Given that I have fetched the list of users, When I want to view more details or perform actions on a specific user, Then I should be able to click on their username to access their user profile or perform administrative tasks.
6. Given that I am fetching the list of users, When the database contains a large number of users, Then the system should implement pagination to display the users in manageable chunks.
7. Given that I am fetching the list of users, When I click on the pagination controls, Then the system should load and display the next page of users without reloading the entire page.
8. Given that I am fetching the list of users, When I encounter an error while retrieving the user data, Then I should receive an error message indicating the issue and suggesting possible solutions.

### 3. Title: Disable User Account

**Story:** As an admin of the ePharmacy backend system, I want to be able to disable a user's account, So that their access to the system can be revoked if necessary.

#### Acceptance Criteria:

1. Given that I am logged into the backend system as an admin, When I navigate to the "Disable User" section, Then I should see an option to disable a user's account.
2. Given that I have selected the option to disable a user, When I enter the username or search for the user's account, Then the system should retrieve and display the user's details.
3. Given that I am viewing the user's details, When I confirm that I want to disable the user's account, Then the system should prompt me to confirm the action.
4. Given that I have confirmed the action to disable the user's account, When I submit the request, Then the user's account status should be updated to "disabled" in the database.
5. Given that the user's account has been disabled, When the user tries to log in, Then they should receive an error message indicating that their account has been disabled.
6. Given that I have disabled the user's account, When I view the list of users, Then the disabled user's account should be clearly marked as "disabled" in the user list.

7. Given that I am disabling a user's account, When I encounter an error while processing the request, Then I should receive an error message indicating the issue and suggesting possible solutions.
8. Given that I have successfully disabled a user's account, When I want to re-enable the user's account, Then there should be an option available to reverse the action and restore the user's access.

#### **4. Title: Register New Centre**

**Story:** As an admin of the ePharmacy backend system, I want to be able to register a new centre under a username, So that the ePharmacy store can expand its reach to new locations.

##### **Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Register New Centre" section, Then I should see an option to register a new centre.
2. Given that I have selected the option to register a new centre, When I enter the username of the user associated with the centre, Then the system should retrieve and display the user's details.
3. Given that I have entered the username and other required details for the new centre, When I submit the registration form, Then the system should validate the information and create a new centre entry in the database.
4. Given that the registration is successful, When I view the list of centres, Then the newly registered centre should be listed among the active centres.
5. Given that I am registering a new centre, When I encounter an error while processing the request, Then I should receive an error message indicating the issue and suggesting possible solutions.
6. Given that I have successfully registered a new centre, When I want to view more details or perform actions on the centre, Then there should be options available to manage the centre's information and settings.
7. Given that the system allows for multiple centres to be registered under the same username, When I register a new centre for an existing user, Then the user's account should remain associated with all the registered centres under their username.
8. Given that I have registered a new centre, When the user associated with the centre logs into the system, Then they should be able to view and manage the centre's details and settings.

#### **5. Title: Register New Batch**

**Story:** As an admin of the ePharmacy backend system, I want to be able to register a new batch under a username, So that the ePharmacy store can manage inventory effectively and track products by batch.

**Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Register New Batch" section, Then I should see an option to register a new batch.
2. Given that I have selected the option to register a new batch, When I enter the username of the user associated with the batch, Then the system should retrieve and display the user's details.
3. Given that I have entered the username and other required details for the new batch, When I submit the registration form, Then the system should validate the information and create a new batch entry in the database.
4. Given that the registration is successful, When I view the list of batches, Then the newly registered batch should be listed among the active batches.
5. Given that I am registering a new batch, When I encounter an error while processing the request, Then I should receive an error message indicating the issue and suggesting possible solutions.
6. Given that I have successfully registered a new batch, When I want to view more details or perform actions on the batch, Then there should be options available to manage the batch's information and settings.
7. Given that the system allows for multiple batches to be registered under the same username, When I register a new batch for an existing user, Then the user's account should remain associated with all the registered batches under their username.
8. Given that I have registered a new batch, When the user associated with the batch logs into the system, Then they should be able to view and manage the batch's details and settings.

**6. Title:** Fetch All Students

**Story:** As an admin of the ePharmacy backend system, I want to be able to fetch a list of all students registered in the database, So that I can manage student records and ensure accurate data management.

**Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Fetch All Students" section, Then I should see an option to retrieve a list of all students.

2. Given that I have selected the option to fetch all students, When I submit the request, Then the system should retrieve and display a list of all students registered in the database.
3. Given that the list of students is displayed, When I view each student entry, Then I should see their full name, student ID, contact information, and other relevant details.
4. Given that I am viewing the list of students, When I want to filter the students based on specific criteria, Then I should be able to apply filters such as batch code or student status to refine the search results.
5. Given that I have fetched the list of students, When I want to view more details or perform actions on a specific student, Then I should be able to click on their student ID to access their profile or perform administrative tasks.
6. Given that I am fetching the list of students, When the database contains a large number of students, Then the system should implement pagination to display the students in manageable chunks.
7. Given that I am fetching the list of students, When I click on the pagination controls, Then the system should load and display the next page of students without reloading the entire page.
8. Given that I am fetching the list of students, When I encounter an error while retrieving the student data, Then I should receive an error message indicating the issue and suggesting possible solutions.

#### **7. Title:** Fetch Users' Students

**Story:** As an admin of the ePharmacy backend system, I want to be able to fetch a list of students registered under a specific batch code, So that I can monitor and manage the students' progress and records efficiently.

#### **Acceptance Criteria:**

1. Given that I am logged into the backend system as an admin, When I navigate to the "Fetch Users' Students" section, Then I should see an option to retrieve a list of students under a specific batch code.
2. Given that I have selected the option to fetch users' students, When I enter the batch code or search for the batch, Then the system should retrieve and display the details of the batch, including its associated students.
3. Given that the list of students under the specified batch is displayed, When I view each student entry, Then I should see their full name, student ID, contact information, and other relevant details.
4. Given that I am viewing the list of students under the specified batch, When I want to view more details or perform actions on a specific student, Then I should be able to click on their student ID to access their profile or perform administrative tasks.

5. Given that I am fetching the list of students, When the batch code provided does not exist or has no associated students, Then the system should display a message indicating that no students were found under the specified batch code.
6. Given that I am fetching the list of students, When I want to filter the students based on specific criteria, Then I should be able to apply filters such as student status or enrollment date to refine the search results.
7. Given that I am fetching the list of students, When the database contains a large number of students, Then the system should implement pagination to display the students in manageable chunks.
8. Given that I am fetching the list of students, When I encounter an error while retrieving the student data, Then I should receive an error message indicating the issue and suggesting possible solutions.

#### **4. User Panel:**

##### **1. Title: Fetch Centres**

**Story:** As a user of the ePharmacy backend system, I want to be able to fetch all centres registered under my username, So that I can manage and monitor the operations of the centres effectively.

##### **Acceptance Criteria:**

1. Given that I am logged into the backend system as a user, When I navigate to the "Fetch Centres" section, Then I should see an option to retrieve a list of centres associated with my username.
2. Given that I have selected the option to fetch centres, When I submit the request, Then the system should retrieve and display a list of all centres registered under my username.
3. Given that the list of centres is displayed, When I view each centre entry, Then I should see the centre code, name, location, and other relevant details.
4. Given that I am viewing the list of centres, When I want to view more details or perform actions on a specific centre, Then I should be able to click on its centre code to access its profile or perform administrative tasks.
5. Given that I have fetched the list of centres, When the username provided does not exist or has no associated centres, Then the system should display a message indicating that no centres were found under the specified username.
6. Given that I am fetching the list of centres, When I encounter an error while retrieving the centre data, Then I should receive an error message indicating the issue and suggesting possible solutions.

7. Given that I am fetching the list of centres, When the database contains a large number of centres, Then the system should implement pagination to display the centres in manageable chunks.
8. Given that I am fetching the list of centres, When I want to filter the centres based on specific criteria, Then I should be able to apply filters such as location or status to refine the search results.

## 2. Title: Fetch Batches by Centre Code

**Story:** As a user of the ePharmacy backend system, I want to be able to fetch all batches registered under a specific centre code, So that I can manage and monitor the operations of the batches effectively.

### Acceptance Criteria:

1. Given that I am logged into the backend system as a user, When I navigate to the "Fetch Batch" section, Then I should see an option to retrieve a list of batches associated with a specific centre code.
2. Given that I have entered a specific centre code, When I submit the request to fetch batches, Then the system should retrieve and display a list of all batches registered under the specified centre code.
3. Given that the list of batches is displayed, When I view each batch entry, Then I should see the batch code, name, start date, end date, and other relevant details.
4. Given that I am viewing the list of batches, When I want to view more details or perform actions on a specific batch, Then I should be able to click on its batch code to access its profile or perform administrative tasks.
5. Given that there are no batches registered under the specified centre code, When I submit the request, Then the system should display a message indicating that no batches were found under the specified centre code.
6. Given that I encounter an error while fetching batches, When I submit the request, Then the system should display an error message indicating the issue and suggesting possible solutions.
7. Given that the database contains a large number of batches, When I fetch batches, Then the system should implement pagination to display the batches in manageable chunks.
8. Given that I want to filter the batches based on specific criteria, When I fetch batches, Then the system should provide options to apply filters such as status or enrollment capacity to refine the search results.



### 3. Title: Fetch Students by Batch

**Story:** As a user of the ePharmacy backend system, I want to be able to fetch all students registered in a given batch, So that I can manage and monitor their progress effectively.

#### Acceptance Criteria:

1. Given that I am logged into the backend system as a user, When I navigate to the "Fetch Student" section, Then I should see an option to retrieve a list of students registered in a specific batch.
2. Given that I have selected a specific batch, When I submit the request to fetch students, Then the system should retrieve and display a list of all students registered in the specified batch.
3. Given that the list of students is displayed, When I view each student entry, Then I should see their full name, student ID, contact information, and other relevant details.
4. Given that I am viewing the list of students, When I want to view more details or perform actions on a specific student, Then I should be able to click on their student ID to access their profile or perform administrative tasks.
5. Given that there are no students registered in the specified batch, When I submit the request, Then the system should display a message indicating that no students were found in the specified batch.
6. Given that I encounter an error while fetching students, When I submit the request, Then the system should display an error message indicating the issue and suggesting possible solutions.
7. Given that the database contains a large number of students in the specified batch, When I fetch students, Then the system should implement pagination to display the students in manageable chunks.
8. Given that I want to filter the students based on specific criteria, When I fetch students, Then the system should provide options to apply filters such as enrollment status or academic performance to refine the search results.
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### 4. Title: Request New Batch Registration

**Story:** As a user of the ePharmacy backend system, I want to be able to request the registration of a new batch, So that additional batches can be created to accommodate new students or expand operations.

#### Acceptance Criteria:

1. Given that I am logged into the backend system as a user, When I navigate to the "Request New Batch" section, Then I should see an option to submit a request for a new batch registration.
2. Given that I have selected the option to request a new batch, When I enter the necessary details such as the batch code and centre code, Then the system should validate the information provided.
3. Given that the request form is validated successfully, When I submit the request, Then the system should record the request in the database for further processing.
4. Given that I have submitted the request, When the request is successfully recorded, Then I should receive a confirmation message indicating that the request has been submitted successfully.
5. Given that I have submitted the request, When the request fails to record due to an error, Then I should receive an error message indicating the issue and suggesting possible solutions.
6. Given that I have submitted the request, When I want to view the status of my request or make changes, Then there should be options available to track the status of the request or edit the request details.
7. Given that the system administrator reviews and approves the batch registration request, When the request is approved, Then the system should create a new batch entry in the database based on the provided details.
8. Given that the system administrator reviews and approves the batch registration request, When the request is approved, Then I should receive a notification indicating that the batch registration request has been approved.

#### 5. **Title:** Request New Centre Registration

**Story:** As a user of the ePharmacy backend system, I want to be able to request the registration of a new centre, So that additional centres can be established to expand our services or operations.

#### **Acceptance Criteria:**

1. Given that I am logged into the backend system as a user, When I navigate to the "Request New Centre" section, Then I should see an option to submit a request for a new centre registration.
2. Given that I have selected the option to request a new centre, When I enter the necessary details such as the centre code and other relevant information, Then the system should validate the information provided.
3. Given that the request form is validated successfully, When I submit the request, Then the system should record the request in the database for further processing.

4. Given that I have submitted the request, When the request is successfully recorded, Then I should receive a confirmation message indicating that the request has been submitted successfully.
5. Given that I have submitted the request, When the request fails to record due to an error, Then I should receive an error message indicating the issue and suggesting possible solutions.
6. Given that I have submitted the request, When I want to view the status of my request or make changes, Then there should be options available to track the status of the request or edit the request details.
7. Given that the system administrator reviews and approves the centre registration request, When the request is approved, Then the system should create a new centre entry in the database based on the provided details.
8. Given that the system administrator reviews and approves the centre registration request, When the request is approved, Then I should receive a notification indicating that the centre registration request has been approved.