

US-001: User Registration via API

As a new user,

I want to register my account by providing personal details via the API,
so that I can access the platform and manage my information securely.

Acceptance Criteria – User Creation (POST /users)

Successful user creation

- When the user provides valid username, email, password, and age,
Then the API must return HTTP **201 Created** with a success message and the user ID
(excluding the password).

Required fields validation

- If any of the following fields are missing: username, email, password, age,
Then return HTTP **400 Bad Request** with a message specifying the missing field.

Username validation

- The username must:
 - Be unique in the system
 - Have 5–30 characters
 - Contain only letters, numbers, and underscores
- If these conditions are not met, return **400** or **409 Conflict** depending on the case.

Email validation

- The email must:
 - Be in a valid format (e.g., user@example.com)
 - Be unique in the system
- If format is invalid, return **400**.
- If already in use, return **409 Conflict**.

Age validation

- The age must:
 - Be a number between 18 and 60
- If the value is outside this range or not a number, return **400 Bad Request**.

Password validation and encryption

- The password must:

- Be at least 6 characters
- Include one uppercase letter and one number
- Password must be encrypted in the database using a secure hash (e.g., bcrypt).
- Plain text passwords must **never** be stored or returned.

Optional phone field

If phone is provided:

- Must be in international format (e.g., +59171234567)
- If invalid, return **400 Bad Request**

Security

- No sensitive data (like password) is returned in the API response.
- Inputs are sanitized to prevent SQL injection or XSS.

Database verification

- The new user is inserted into the database with all validated fields.
- Password is stored encrypted.
- A timestamp for creation is recorded.