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Phase 2 - USER REGISTRATION WITH VALIDATION

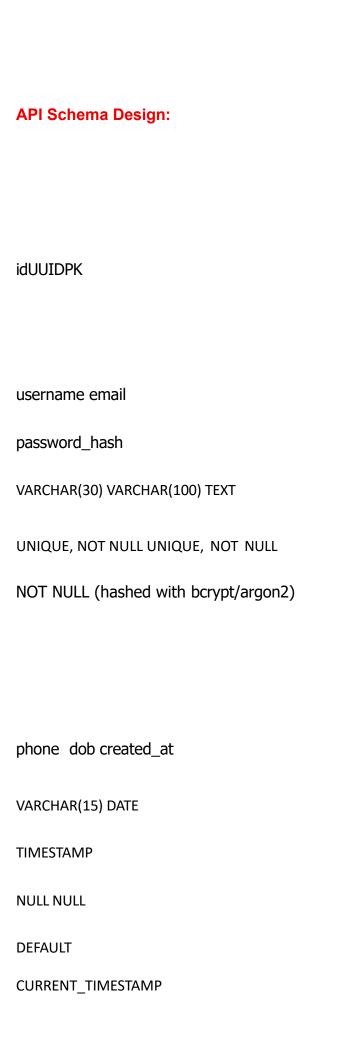
Tech stack selection:

- 1. User submits form on frontend \rightarrow frontend validation runs.
- 1. Data sent to backend → backend validation runs.
- 2. Backend checks database for duplicate emails.
- 3. User saved in database → success response sent.
- 1. Errors handled and shown to user.

UI Structure & API Schema Design:

UI Structure:

- 1. Form Header \rightarrow Title ("Create Account") + subtitle ("Register to get started").
- 2. Input Fields → Full Name, Email, Phone, Password, Confirm Password (with inline validation).
- 3. Validation Rules → Required fields, format checks (email/phone), password strength, confirm password match.
- 1. Extras → Terms & Conditions checkbox + link to Login page.
- 2. Submit Button \rightarrow Disabled until all validations pass + error/success feedback shown.



Data Handling Approach: User Registration with Validation – Data Handling Approach in a tabular format: Step

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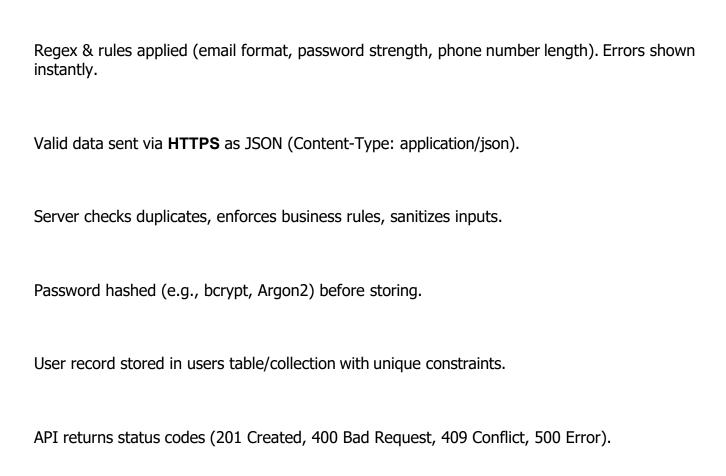
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Process Input Capture

Client-side Validation

API Request

Backend Validation
Password Security
Database Storage
Response Handling
Post-Registration Actions Details
User enters details (username, email, password, phone, etc.) in frontend form.



Send email/SMS verification, generate JWT/session token if auto-login is enabled.

Component / Module Diagram:

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| User Interface |
| (Registration UI) |
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| Input Validator |
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| (Frontend checks)|

| • Empty fields |

• Email format
• Password rules
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l v
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Registration API
(POST /register)
• Receives data
• Triggers
backend logic
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l v
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Backend Module
(Business Logic)
• Server-side
validation
• Duplicate user
check

• Hash password
++
l v
++
Database Module
(User Repository)
• Store user
• Enforce unique
constraints
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Key Points in Flow:
 UI (Frontend) → Collects user details. Validation (Frontend) → Prevents invalid input before sending to backend.
API Gateway → Routes registration requests.
2. Backend Validation → Ensures security, checks duplicates, hashes passwords.
 Database → Stores only valid & secured user
II Database / Stores only raile a secured user

Basic Flow Diagram:

