BRAC UNIVERSITY

Inspiring Excellence

CSE471 : System Analysis and Design
Lab Assignment on API Development and Postman

Project Title : Nirapod
Group Number : 08
Backend Framework : Spring Boot

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Section: 09

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APIs of Feature - 01 (Login)

1. **Manual Login** - The user will provide their username and password to log in to the website. After Providing the password it will redirect to the OTP page
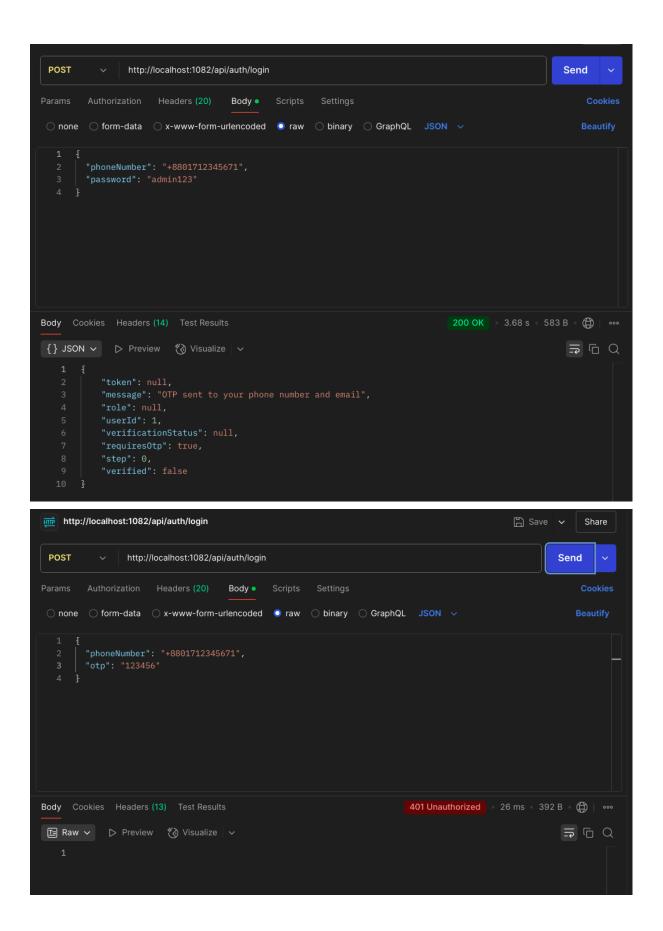
```java
@PostMapping("/login")
public ResponseEntity<?> login(@RequestBody Map<String, String> loginRequest) {
    String phoneNumber = loginRequest.get("phoneNumber");
    String password = loginRequest.get("password");

    Optional<User> userOpt = userService.findByPhoneNumber(phoneNumber);

    if (userOpt.isEmpty()) {
        return ResponseEntity.status(HttpStatus.UNAUTHORIZED).body(body:"Invalid credentials");
    }

    User user = userOpt.get();

    // Check password - handle both BCrypt and plain text
    boolean passwordMatches = false;
    try {
        // First try BCrypt matching
        passwordMatches = password.equals(user.getPassword());
```

```java
        return ResponseEntity.ok(AuthResponse.builder()
                .message(message:"OTP sent to your phone number and email")
                .userId(user.getId())
                .requiresOtp(requiresOtp:true)
                .build());
}

@PostMapping("/verify-otp")
public ResponseEntity<?> verifyOtp(@RequestBody Map<String, String> otpRequest) {
    String phoneNumber = otpRequest.get("phoneNumber");
    String code = otpRequest.get("otp");

    Optional<User> userOpt = userService.findByPhoneNumber(phoneNumber);

    if (userOpt.isEmpty()) {
        return ResponseEntity.status(HttpStatus.NOT_FOUND).body(body:"User not found");
    }

    User user = userOpt.get();

    boolean verified = otpService.validateOtp(user, code);
    if (!verified) {
        return ResponseEntity.badRequest().body(body:"Invalid or expired OTP");
    }
```

POST ⌄ | http://localhost:1082/api/auth/login | **Send** ⌄

Params Authorization Headers (20) **Body ●** Scripts Settings   **Cookies**

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON ⌄   **Beautify**

```
1  {
2    "phoneNumber": "+8801712345671",
3    "password": "admin123"
4  }
```

Body Cookies Headers (14) Test Results   200 OK • 3.68 s • 583 B • 🌐 • ⚫⚫⚫

{} JSON ⌄   ▷ Preview   ⚫ Visualize ⌄

```
1  {
2      "token": null,
3      "message": "OTP sent to your phone number and email",
4      "role": null,
5      "userId": 1,
6      "verificationStatus": null,
7      "requiresOtp": true,
8      "step": 0,
9      "verified": false
10 }
```

🖫 **http://localhost:1082/api/auth/login**   🖫 Save ⌄ | Share

POST ⌄ | http://localhost:1082/api/auth/login | **Send** ⌄

Params Authorization Headers (20) **Body ●** Scripts Settings   **Cookies**

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON ⌄   **Beautify**

```
1  {
2    "phoneNumber": "+8801712345671",
3    "otp": "123456"
4  }
```

Body Cookies Headers (13) Test Results   401 Unauthorized • 26 ms • 392 B • 🌐 • ⚫⚫⚫

🖾 Raw ⌄   ▷ Preview   ⚫ Visualize ⌄

```
1
```

3

APIs of Feature - 02 (HomePage)

Here only the blank frontpage is showing

```java
public class HomeController {

    @GetMapping
    public ResponseEntity<Map<String, Object>> home() {
        Map<String, Object> response = new HashMap<>();
        response.put("status", "success");
        response.put("message", "Nirapod API is running");
        response.put("api_version", "1.0");
        response.put("documentation", "/swagger-ui.html (if configured)");

        return ResponseEntity.ok(response);
    }

    @GetMapping("/health")
    public ResponseEntity<Map<String, String>> healthCheck() {
        Map<String, String> status = new HashMap<>();
        status.put("status", "UP");
        return ResponseEntity.ok(status);
    }
}
```

GET | http://localhost:1082/ | Send

Params Authorization Headers (20) Body • Scripts Settings Cookies

none form-data x-www-form-urlencoded ● raw binary GraphQL JSON ∨ Beautify

```json
1  {
2    "phoneNumber": "+8801712345671",
3    "otp": 123456
4  }
```

Body Cookies Headers (14) Test Results   200 OK · 35 ms · 549 B

{} JSON ∨   ▷ Preview   Visualize ∨

```json
1  {
2    "documentation": "/swagger-ui.html (if configured)",
3    "message": "Nirapod API is running",
4    "api_version": "1.0",
5    "status": "success"
6  }
```