# API Testing Report

## API Endpoint: User Login

### Endpoint Details

* + **URL:** http://localhost:5000/api/user/login
  + **Method:** POST
  + **Description:** This endpoint is used for user authentication. It takes email and

password as form data and returns a bearer token upon successful login.

### Request Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Paramete r** | **Type** | **Require d** | **Description** |
| email | strin g | Yes | User's email address |
| password | strin g | Yes | User's password |
| **Test Cases** |  |  |  |

1. **Successful Login**
   * **Description:** Verify that a user can log in with valid credentials.

#### Input:

* + - email: [valid@example.com](mailto:valid@example.com)
    - password: validpassword

#### Expected Response:

* + - **Status Code:** 200 OK
    - **Body:** JSON object containing token

1. **Missing Email**
   * **Description:** Verify that the API returns an error when the email is missing.

#### Input:

* + - password: validpassword

#### Expected Response:

* + - **Status Code:** 400 Bad Request
    - **Body:** JSON object containing an error message about the missing email

1. **Missing Password**
   * **Description:** Verify that the API returns an error when the password is missing.

#### Input:

* + - email: [valid@example.com](mailto:valid@example.com)

#### Expected Response:

* + - **Status Code:** 400 Bad Request
    - **Body:** JSON object containing an error message about the missing password

1. **Invalid Email Format**
   * **Description:** Verify that the API returns an error when the email format is invalid.

#### Input:

* + - email: invalidemail
    - password: validpassword

#### Expected Response:

* + - **Status Code:** 400 Bad Request
    - **Body:** JSON object containing an error message about the invalid email format

1. **Invalid Credentials**
   * **Description:** Verify that the API returns an error when the credentials are invalid.

#### Input:

* + - email: [invalid@example.com](mailto:invalid@example.com)
    - password: invalidpassword

#### Expected Response:

* + - **Status Code:** 401 Unauthorized
    - **Body:** JSON object containing an error message about the invalid credentials

### Test Results

#### Test Case Statu s

**Response Code**

#### Response Body Remarks

Successful Login

Pass 200 { "token": "..." } User successfully

logged in

Missing Email Pass 400 { "error": "Email

required" }

Appropriate error message shown

Missing

Password

Invalid Email Format

Invalid

Credentials

Pass 400 { "error": "Password required" }

Pass 400 { "error": "Invalid email format" }

Pass 401 { "error": "Invalid credentials" }

Appropriate error message shown

Appropriate error message shown

Appropriate error message shown