**API Documentation: Verify User API**

This documentation provides a detailed explanation of the verify\_user API for verifying user credentials in a database. The API is implemented in PHP and uses a MySQL database to validate user credentials.

**Overview**

The verify\_user API accepts user\_id and user\_password as input and verifies whether the provided credentials match a user in the database.

**Base URL**

The API is hosted at your server endpoint (e.g., http://localhost/verify\_user.php).

**HTTP Methods**

**POST**

* **Purpose**: Verifies if a user exists in the database and checks the validity of the provided password.

**Input Parameters**

The API expects a JSON payload with the following fields:

| **Field** | **Type** | **Description** | **Required** |
| --- | --- | --- | --- |
| user\_id | string | The unique identifier of the user. | Yes |
| user\_password | string | The password associated with the user\_id. | Yes |

**Sample Request**

json

Copy code

{

"user\_id": "3333",

"user\_password": "tanimvai"

}

**Responses**

The API returns a JSON response based on the verification result.

**Success Response**

If the credentials are valid, the API returns:

json

Copy code

{

"user\_id": "3333",

"user\_name": "Tanim Vai"

}

**Error Responses**

1. **Invalid Credentials**:

json

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{

"error": true,

"message": "Invalid user\_id or password"

}

1. **Missing Parameters**:

json

Copy code

{

"error": true,

"message": "Missing user\_id or user\_password"

}

1. **Unsupported HTTP Method**:

json

Copy code

{

"error": true,

"message": "Method not allowed"

}

**Code Explanation**

**Database Connection**

php

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$host = "localhost";

$username = "root";

$password = "";

$db\_name = "attendance\_system";

$conn = new mysqli($host, $username, $password, $db\_name);

if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}

* Establishes a connection to the MySQL database.
* Terminates with an error if the connection fails.

**Input Handling**

php

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$data = json\_decode(file\_get\_contents("php://input"), true);

* Reads and decodes the JSON payload sent in the POST request.

**Credential Verification**

1. **SQL Query**:

php

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$sql = "SELECT user\_id, user\_name, user\_password FROM users WHERE user\_id = '$user\_Id'";

$result = $conn->query($sql);

* + Fetches the user\_id, user\_name, and user\_password from the database where user\_id matches the input.

1. **Check Query Result**:

php

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if ($result && $result->num\_rows > 0) {

$row = $result->fetch\_assoc();

}

* + Ensures a user exists with the given user\_id.

1. **Password Validation**:

php

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if ($user\_password === $row['user\_password']) {

echo json\_encode([

"user\_id" => $row['user\_id'],

"user\_name" => $row['user\_name']

]);

}

* + Compares the provided password with the password stored in the database. **(For security, replace this with password\_verify if passwords are hashed)**.

1. **Error Handling**:
   * If the user is not found or the password does not match, appropriate error messages are returned.

**Default Case**

php

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default:

http\_response\_code(405);

echo json\_encode(["error" => "Method not allowed"]);

break;

* Handles unsupported HTTP methods by returning a 405 Method Not Allowed status.

**Database Schema**

**Table Name**: users

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| user\_id | VARCHAR | Unique identifier for users. |
| user\_name | VARCHAR | Name of the user. |
| user\_email | VARCHAR | Email of the user. |
| user\_password | VARCHAR | User password (plain or hashed). |

**Security Considerations**

1. **Use Prepared Statements**:
   * Replace "$user\_Id" in SQL queries with prepared statements to prevent SQL injection.

php

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$stmt = $conn->prepare("SELECT user\_id, user\_name, user\_password FROM users WHERE user\_id = ?");

$stmt->bind\_param("s", $user\_Id);

1. **Hash Passwords**:
   * Store passwords using hashing (password\_hash) for better security.

php

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$hashedPassword = password\_hash($user\_password, PASSWORD\_BCRYPT);

1. **Validate Input**:
   * Ensure all required fields are present and sanitized.

**Usage Example**

**Request**

bash

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curl -X POST http://localhost/verify\_user.php \

-H "Content-Type: application/json" \

-d '{

"user\_id": "3333",

"user\_password": "tanimvai"

}'

**Response**

json

Copy code

{

"user\_id": "3333",

"user\_name": "Tanim Vai"

}