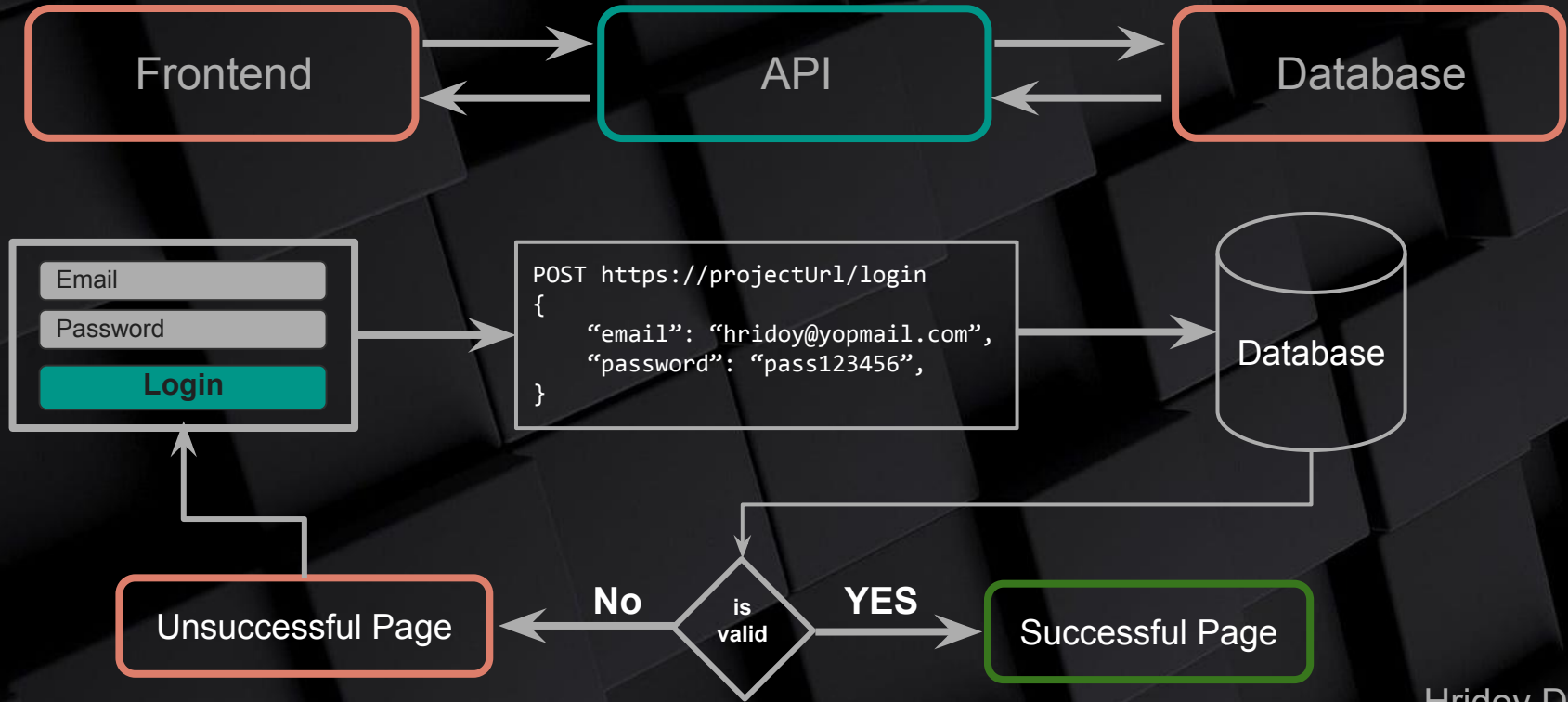


API Testing - Manual

Application Programming Interface



Methods of Rest API

- **GET:** Retrieve data from a server (**GET** <https://project.com/users> ⇒ get a list of users).
- **POST:** Submit data to a server to create a new resource (**POST** <https://project.com/users/add> ⇒ create a new user).
- **PUT:** Update an existing resource on the server (**PUT** <https://project.com/users/1> ⇒ update user details where user ID is 1).
- **DELETE:** Remove a resource from the server (**Delete** <https://project.com/users/1> ⇒ delete a user where user ID is 1).
- **PATCH:** Partially update an existing resource. (**PATCH** <https://project.com/users?ID=1> ⇒ update specific parameter for ID is 1)

Status Code: (URL)

Practice: (URL)

GET Method

GET https://project.com/users

Response Status Code 200

Response

```
[  
  {  
    "id": 1,  
    "username": "user01",  
    "email": "user01@myproject.com",  
    "mobileNumber": "8801234567801",  
    "createdAt": "2024-08-26T12:34:56Z",  
    "updatedAt": "2024-08-26T12:34:56Z"  
  },  
  {  
    "id": 2,  
    "username": "user02",  
    "email": "user02@myproject.com",  
    "mobileNumber": "8801234567802",  
    "createdAt": "2024-08-26T12:34:56Z",  
    "updatedAt": "2024-08-26T12:34:56Z"  
  }  
]
```

Object1

Object2

JSON

POST Method

POST https://project.com/users/add

```
Body    {  
        "username": "user03",  
        "email": "user03@myproject.com",  
        "mobileNumber": "8801234567803"  
    }
```

```
Response                                     Response Status Code 201  
{  
    "message": "user added successfully",  
}
```

PUT Method

PUT <https://project.com/users?ID=1> → Parameter

Body

```
{  
  "id": 1,  
  "username": "updated-user01",  
  "email": "user01@myproject.com",  
  "mobileNumber": "8801234567801"  
}
```

Response

```
{  
  "message": "user updated successfully",  
  "updatedUser": {  
    "id": 1,  
    "username": "updated-user01",  
    "email": "user01@myproject.com",  
    "mobileNumber": "8801234567801"  
    "createdAt": "2024-08-26T12:34:56Z",  
    "updatedAt": "2024-08-26T20:10:22Z"  
  }  
}
```

Response Status Code 200

PATCH Method

PATCH <https://project.com/users?ID=1>

Body

```
{  
  "username": "updated-user01",  
}
```

Response

```
{  
  "message": "user updated successfully",  
  "updatedUser": {  
    "id": 1,  
    "username": "updated-user01",  
    "email": "user01@myproject.com",  
    "mobileNumber": "8801234567801"  
    "createdAt": "2024-08-26T12:34:56Z",  
    "updatedAt": "2024-08-26T20:10:22Z"  
  }  
}
```

Response Status Code 200

DELETE Method

DELETE <https://project.com/users?ID=1>

Response

```
{  
  "message": "user with ID 1 deleted successfully",  
}
```

Response Status Code 200

HTTP VS HTTPS

HTTP

- Not Secure
- Data transmitter in plain text
- Default port 80
- Faster as no overhead
- Altered without service knowing
- Transfer non-sensitive data

HTTPS

- Secure
- Data transmitter with encrypted format
- Default port 443
- Slower as need to encrypt and decrypt
- Ensure data integrity
- Transfer with secure communication

Postman Variables

- Collection Variables
- Environment Variables
- Global Variables