**25. What is REST API?**

**REST API** (Representational State Transfer API) is an architectural style for designing web services that interact using HTTP methods. It focuses on resources, which are represented by URLs, and uses standardized operations like **GET**, **POST**, **PUT**, and **DELETE**.

**Key Features:**

1. **Stateless**: Each request contains all required information.
2. **Resource-Based**: Resources (e.g., users, orders) are accessed via URLs.
3. **Representation**: Data is returned in formats like JSON or XML.
4. **HTTP Methods**:
   * **GET**: Retrieve data.
   * **POST**: Create data.
   * **PUT**: Update/replace data.
   * **DELETE**: Remove data.

**Example:**

* **GET**: Retrieve all users  
  GET https://api.example.com/users  
  Response: [{"id": 1, "name": "Alice"}]
* **POST**: Add a user  
  POST https://api.example.com/users  
  Body: {"name": "Bob"}  
  Response: {"id": 2, "name": "Bob"}

**Benefits:**

* **Scalable** and lightweight.
* **Flexible** with support for multiple formats.
* Easy to understand and widely used.