**What is REST?**

**REST** (Representational State Transfer) is a **design architecture** used for building **web services**. A **REST API** allows different systems (often web-based) to **communicate over HTTP** using **stateless operations** like GET, POST, PUT, and DELETE.

**Key Features of REST API:**

* Communicates over **HTTP**
* Uses **URL paths** to represent resources
* Supports standard HTTP methods:
  + GET – Read data
  + POST – Create data
  + PUT – Update data
  + DELETE – Delete data
* **Stateless** – Server does not remember client state between requests
* **JSON** is the most common data format

**Where is REST API used in Today's World?**

REST APIs are **used everywhere**. Any time different applications or systems need to talk to each other over the web, **REST APIs** are involved.

**Real-life Use Cases of REST APIs:**

**1. Online Food Delivery Apps (Swiggy, Zomato, Uber Eats)**

* GET /restaurants → Show list of restaurants
* POST /orders → Place an order
* PUT /order/123/status → Update delivery status

**2. E-Commerce (Amazon, Flipkart)**

* GET /products → Fetch product list
* POST /cart → Add items to cart
* DELETE /cart/item/5 → Remove item from cart

**3. Online Ticket Booking (IRCTC, MakeMyTrip, BookMyShow)**

* GET /flights → Show available flights
* POST /bookings → Book ticket
* GET /booking/{id} → Check status

**4. Banking & Payments (PayTM, Google Pay)**

* GET /transactions → View past transactions
* POST /transfer → Send money
* GET /balance → View account balance

**5. Weather Apps**

* GET /weather?city=Mumbai → Get weather info for Mumbai

**6. Social Media (Instagram, Twitter, Facebook)**

* POST /posts → Create a post
* GET /user/posts → View posts by user
* POST /like → Like a post

**7. Education Apps (Udemy, BYJU’S, Coursera)**

* GET /courses → Browse available courses
* POST /enroll → Enroll in course