**Q. What is REST API**

A **REST API** (Representational State Transfer API) ek aisi technique hai jo client aur server ke beech communication ke liye use hoti hai, jaise ek mobile app ya website server se data maangta hai aur server response deta hai. Yeh mainly **HTTP methods** (GET, POST, PUT, DELETE, etc.) ka use karke kaam karta hai.

### **REST API ki Important Features:**

1. **Statelessness (No Memory):**
   * Server ko client ki purani request ya data yaad nahi rehta. Har request me client ko apna pura data bhejna padta hai.
2. **Client-Server Architecture:**
   * Client aur server alag-alag kaam karte hain. Client request bhejta hai aur server uska kaam karke response deta hai.
3. **Uniform Interface:**
   * REST API ek standard follow karta hai, jisme resources (data) ko URLs ke through access kiya jaata hai. Response JSON ya XML format me hota hai.
4. **Resource-Based:**
   * REST APIs har cheez ko ek **resource** (object) ke tarah treat karta hai, jaise "users", "posts", "movies". Har resource ka apna ek unique URL hota hai.
5. **HTTP Methods:**
   * REST APIs HTTP methods use karti hain operations ke liye:
     + **GET:** Data ko fetch karna.
     + **POST:** Naya data create karna.
     + **PUT:** Existing data ko update karna.
     + **DELETE:** Data ko delete karna.
6. **Cacheable:**
   * API responses ko cache kiya ja sakta hai, taaki speed improve ho aur server pe load kam ho.

### **REST API kaise kaam karta hai?**

1. **Client Request:** Client (e.g., browser, mobile app) ek HTTP request bhejta hai specific **endpoint** (URL) par, jaise https://api.example.com/movies.
2. **Server Response:** Server request ko process karke response deta hai, jo **status code** aur data ke saath hota hai.

### **REST API ka Use?**

* **Simplicity:** Easy to samajhne aur use karne ke liye.
* **Scalability:** Badi applications me bhi efficiently kaam karta hai.
* **Compatibility:** Har language aur platform ke saath kaam kar leta hai.

Agar tum apne **Movie React Project** ke liye REST API use karna chahte ho, toh TMDb API jaise APIs ke through movie data fetch kar sakte ho, jaise posters, ratings, aur reviews.