# Rest Assured - Complex JSON and Data Extraction (JsonPath & POJO)

## Complex JSON Response (sample.json)

{  
 "status": "success",  
 "user": {  
 "id": 501,  
 "name": "Alice Smith",  
 "email": "alice.smith@example.com",  
 "isActive": true,  
 "address": {  
 "street": "123 Elm Street",  
 "city": "Los Angeles",  
 "zipcode": "90001"  
 },  
 "orders": [  
 {  
 "orderId": 1001,  
 "orderDate": "2024-01-10",  
 "items": [  
 {"productId": "A100", "productName": "Laptop", "price": 999.99},  
 {"productId": "A101", "productName": "Mouse", "price": 25.49}  
 ]  
 },  
 {  
 "orderId": 1002,  
 "orderDate": "2024-03-15",  
 "items": [  
 {"productId": "B200", "productName": "Keyboard", "price": 45.00}  
 ]  
 }  
 ]  
 }  
}

## Extracting Data using JsonPath

JsonPath jsonPath = new JsonPath(new File("src/test/resources/sample.json"));  
  
String name = jsonPath.getString("user.name");  
String city = jsonPath.getString("user.address.city");  
List<Float> itemPrices = jsonPath.getList("user.orders.items.price");  
  
String firstOrderProduct = jsonPath.getString("user.orders[0].items[0].productName");  
int secondOrderId = jsonPath.getInt("user.orders[1].orderId");  
  
System.out.println("Name: " + name);  
System.out.println("City: " + city);  
System.out.println("Prices: " + itemPrices);  
System.out.println("First Product: " + firstOrderProduct);  
System.out.println("Second Order ID: " + secondOrderId);

## Extracting Data using POJO Classes

Define the POJO classes as shown below:

class User {  
 public int id;  
 public String name;  
 public String email;  
 public boolean isActive;  
 public Address address;  
 public List<Order> orders;  
}  
  
class Address {  
 public String street;  
 public String city;  
 public String zipcode;  
}  
  
class Order {  
 public int orderId;  
 public String orderDate;  
 public List<Item> items;  
}  
  
class Item {  
 public String productId;  
 public String productName;  
 public float price;  
}

## Using Jackson ObjectMapper to Deserialize JSON

ObjectMapper mapper = new ObjectMapper();  
User user = mapper.readValue(new File("src/test/resources/sample.json"), UserWrapper.class).user;  
  
System.out.println("User Name: " + user.name);  
System.out.println("User City: " + user.address.city);  
System.out.println("First Item Price: " + user.orders.get(0).items.get(0).price);