

1. Office Supplies (Pens & Pencils)

Class: Pen

Properties: brand, color, ink_type

Methods: write()

Objects: pen1 (BrandA, Black, Gel), pen2 (BrandB, Blue, Ballpoint)

Class: Pencil

Properties: brand, hardness_level, has_eraser

Methods: write(), erase()

Objects: pencil1 (BrandC, 2B, Yes), pencil2 (BrandD, HB, No)

2. Library System

Class: Book

Properties: title, author, genre

Methods: borrow(), return_book()

Objects: book1 (TitleA, AuthorA, Fiction), book2 (TitleB, AuthorB, Sci-Fi)

3. Car Showroom

Class: Car

Properties: model, color, fuel_type, price

Methods: buy(), start(), stop()

Objects: car1 (ModelA, Red, Petrol, 50000), car2 (ModelB, Blue, Diesel, 60000)

4. Online Food Ordering System

Class: FoodItem

Properties: name, price, category

Methods: order()

Objects: food1 (Pizza, 10, Non-Veg), food2 (Salad, 5, Veg)

5. Mobile Phone Shop

Class: Smartphone

Properties: brand, model, RAM, price

Methods: buy(), check_details()

Objects: phone1 (BrandA, ModelX, 8GB, 800), phone2 (BrandB, ModelY, 12GB, 1000)

6. Movie Ticket Booking System

Class: Movie

Properties: name, duration, language

Methods: book_ticket(), cancel_ticket(), check_seats()

Objects: movie1 (MovieA, 120min, English), movie2 (MovieB, 150min, Hindi)

7. Hospital Management System

Class: Doctor

Properties: name, specialization, experience

Methods: treat_patient()

Objects: doctor1 (Dr.A, Cardiologist, 10yrs)

Class: Patient

Properties: name, age, disease

Methods: get_treatment()

Objects: patient1 (PatientX, 45, Flu)

8. E-Commerce Website

Class: Product

Properties: name, price, brand, category

Methods: add_to_cart(), buy()

Objects: product1 (Shoes, 50, Nike, Fashion), product2 (Laptop, 1000, Dell, Electronics)

9. Banking System

Class: BankAccount

Properties: account_number, balance, account_type

Methods: deposit(), withdraw(), check_balance()

Objects: account1 (12345, 5000, Savings), account2 (67890, 10000, Current)

10. Student Management System

Class: Student

Properties: name, roll_number, grade, subjects

Methods: enroll(), check_marks()

Objects: student1 (John, 101, A, [Math, Science])

11. Taxi Booking App

Class: Taxi

Properties: driver_name, car_model, available

Methods: book(), cancel()

Objects: taxi1 (DriverA, ModelX, Yes)

12. Gaming System

Class: Player

Properties: name, level, score

Methods: earn_points(), level_up()

Objects: player1 (User1, 5, 2000)

13. Hotel Management System

Class: Room

Properties: room_number, type, price

Methods: book(), check_in(), check_out()

Objects: room1 (101, Single, 100), room2 (202, Deluxe, 200)

14. Weather Forecast System

Class: Weather

Properties: location, temperature, humidity, forecast

Methods: check_weather()

Objects: weather1 (CityA, 25°C, 60%, Sunny)

15. Smart Home Automation

Class: Device

Properties: name, status

Methods: turn_on(), turn_off()

Objects: device1 (Light, Off), device2 (Fan, On)

16. Social Media Platform

Class: User

Properties: name, email, friends

Methods: send_message(), post(), like()

Objects: user1 (John, john@email.com, [Mike, Sarah])

17. Flight Booking System

Class: Flight

Properties: flight_number, destination, seats

Methods: book(), cancel()

Objects: flight1 (F123, New York, 50 seats)

18. Music Player App

Class: Song

Properties: title, artist, duration

Methods: play(), pause(), skip()

Objects: song1 (SongA, SingerX, 3min)

19. Supermarket Billing System

Class: Product

Properties: name, price, stock_quantity

Methods: buy(), generate_bill()

Objects: product1 (Milk, 2, 50 units)

20. Online Learning Platform

Class: Course

Properties: title, instructor, duration

Methods: enroll(), complete_course()

Objects: course1 (Python Basics, InstructorX, 30 hours)