1) Build a class Student which contains details about the Student and compile and run its instance.

```
public class Student{

private String name;
private int age;
private String grade;

public Student(String name, int age, String grade){
this.name = name;
this.age = age;
this.grade = grade;
}
public void displayDetails(){
System.out.println("name:  " + name);
System.out.println("age:   " + age);
System.out.println("grade:  " + grade);
}
public static void main (String[] args){
Student student1 =new Student("Sakshi Thele", 22,"A");
student1.displayDetails();
}
}
```

O/P:

```
name:  Sakshi Thele
age:   22
grade:  A
```

2). Write a Vehicle class with overloaded methods that have a different number of parameters. Demonstrate calling these overloaded methods with various numbers of arguments.

```
public class Vehicle {

    public void display() {
        System.out.println("This is a vehicle.");
    }


    public void display(String type) {
        System.out.println("This is a " + type + " vehicle.");
    }


    public void display(String type, String brand) {
        System.out.println("This is a " + type + " vehicle made by " + brand + ".");
    }


    public void display(String type, String brand, int year) {
        System.out.println("This is a " + type + " vehicle made by " + brand + " in " + year + ".");
    }


    public static void main(String[] args) {
```

```
        Vehicle vehicle = new Vehicle();



        vehicle.display();
        vehicle.display("car");
        vehicle.display("car", "Honda");
        vehicle.display("car", "Honda", 2024);
    }
}
```

O/P:

This is a vehicle.

This is a car vehicle.

This is a car vehicle made by Honda.

This is a car vehicle made by Honda in 2024.

3)Create a class Employee with multiple overloaded methods that have different parameter types (e.g., int, double, String). Demonstrate calling each overloaded method with appropriate arguments

```
public class Employee{

public void printDetails(int employeeId){
System.out.println("EmployeeId:  "  + employeeId);
}



public void printDetails(double salary){
System.out.println("Salary:  "  + salary);
}
```

```
public void printDetails(String department){
System.out.println("Department:  "  + department);

}

public static void main(String[] args){

Employee employee = new Employee ();
employee.printDetails(123);
employee.printDetails(1234.3);
employee.printDetails("Engginering");

}
}
```

O/p:

EmployeeId: 123

Salary: 1234.3

Department: Engginering