METHOD OVERLOADING LO1,LO2

AIM:

Write a program to Demonstrate Method overloading

CODE:

```
//Method overloading
public class Person {
    private String name;
    private int age;
    private int graduationYear;

    // Constructor with name and age
    public Person(String name, int age) {
        this.name = name;
        this.age = age;
        this.graduationYear = calculateGraduationYear(age);
    }

    // Constructor with name, age, and graduation year
    public Person(String name, int age, int graduationYear) {
        this.name = name;
        this.age = age;
        this.graduationYear = graduationYear;
    }

    // Overloaded method to calculate graduation year based on age
    public int calculateGraduationYear(int age) {
        int currentYear = 2024; // Assuming current year is 2024
        int yearsToGraduate = 22 - age; // Assuming graduation age is 22
        return currentYear + yearsToGraduate;
    }

    // Overloaded method to calculate graduation year based on name and age
    public int calculateGraduationYear(String name, int age) {
        int currentYear = 2024; // Assuming current year is 2024
        int yearsToGraduate = 22 - age; // Assuming graduation age is 22
```

```
        System.out.println("Calculating graduation year for " + name);
        return currentYear + yearsToGraduate;
    }

    // Method to display person details
    public void displayDetails() {
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        System.out.println("Graduation Year: " + graduationYear);
    }

    public static void main(String[] args) {
        // Create a person using name and age
        Person person1 = new Person("Charmy Dhawan", 19);
        person1.displayDetails();

        // Create a person using name, age, and graduation year
        Person person2 = new Person("Bob", 21, 2025);
        person2.displayDetails();

        // Calculate graduation year for a given age
        int graduationYear = person1.calculateGraduationYear(18);
        System.out.println("Graduation Year for age 18: " + graduationYear);

        // Calculate graduation year for a given name and age
        int graduationYearForCharlie = person1.calculateGraduationYear("Charlie", 19);
        System.out.println("Graduation Year for Charlie at age 19: " +
graduationYearForCharlie);
    }
}
```

OUTPUT:

```
Name: Charmy Dhawan
Age: 19
Graduation Year: 2027
Name: Bob
```

Age: 21
Graduation Year: 2025
Graduation Year for age 18: 2028
Calculating graduation year for Charlie
Graduation Year for Charlie at age 19: 2027

```
C:\Users\charm\OneDrive\Desktop\java>java Person
Name: Charmy Dhawan
Age: 19
Graduation Year: 2027
Name: Bob
Age: 21
Graduation Year: 2025
Graduation Year for age 18: 2028
Calculating graduation year for Charlie
Graduation Year for Charlie at age 19: 2027
```

CONCLUSION:

We learnt how use method overloading with constructor.