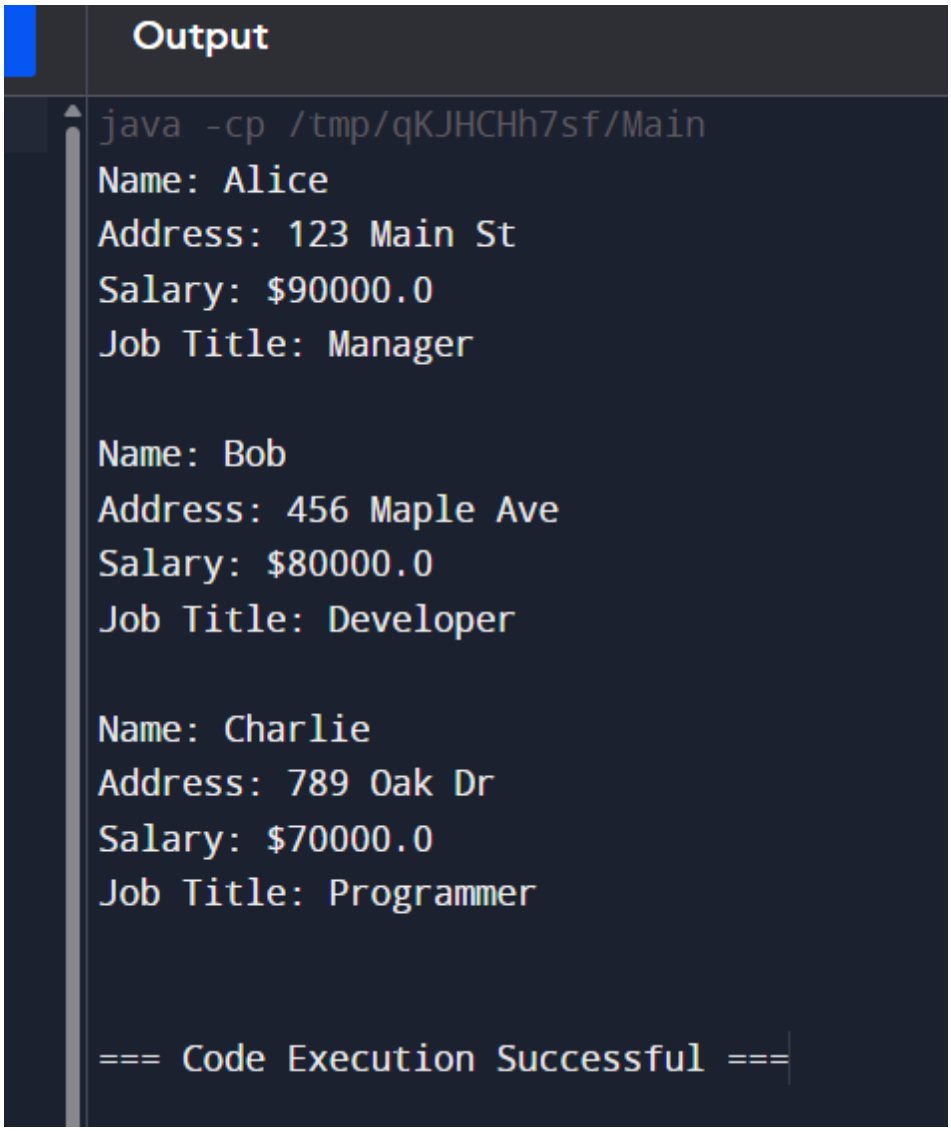
1. write a java program that create class hierarchy for emp of a company the base class should be employee with subclasses manager developer and programmer each subclass should have properties such as name address salary and job title with implement method for calculating code and generating performance of a report

```
class Employee {
    String name;
    String address;
    double salary;
    String jobTitle;
    Employee(String name, String address, double salary, String jobTitle) {
        this.name = name;
        this.address = address;
        this.salary = salary;
        this.jobTitle = jobTitle;
    }

    void displayDetails() {
        System.out.println("Name: " + name);
        System.out.println("Address: " + address);
        System.out.println("Salary: $" + salary);
        System.out.println("Job Title: " + jobTitle);
        System.out.println();
    }
}
class Manager extends Employee {
    Manager(String name, String address, double salary) {
        super(name, address, salary, "Manager");
    }
}

class Developer extends Employee {
    Developer(String name, String address, double salary) {
        super(name, address, salary, "Developer");
    }
}

// Subclass Programmer
class Programmer extends Employee {
    Programmer(String name, String address, double salary) {
        super(name, address, salary, "Programmer");
    }
}

public class Main {
    public static void main(String[] args) {
        Employee manager = new Manager("Alice", "123 Main St", 90000);
        Employee developer = new Developer("Bob", "456 Maple Ave", 80000);
        Employee programmer = new Programmer("Charlie", "789 Oak Dr", 70000);
```

```
        manager.displayDetails();
        developer.displayDetails();
        programmer.displayDetails();
    }
}
```

OUTPUT:



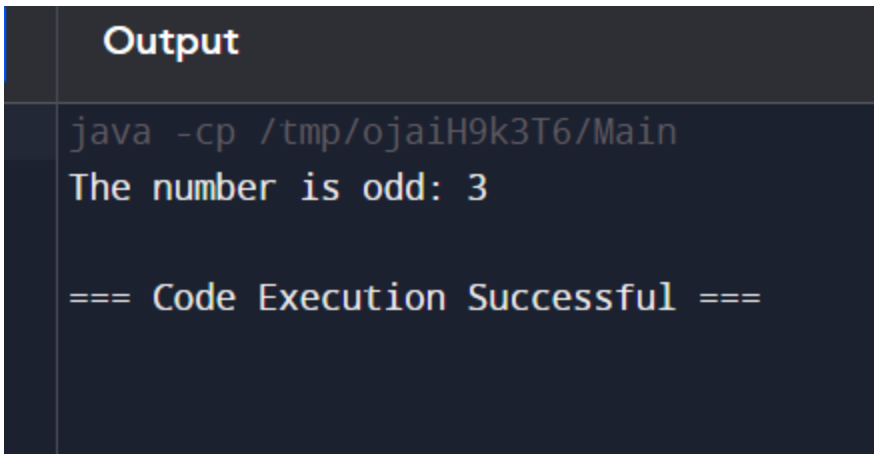
EXCEPTION HANDLING

2. written a java program to create method that take on intergers as parameter throws exception if the number is odd.

```
public class Main {
    public static void checkEven(int number) throws Exception {
        if (number % 2 != 0) {
            throw new Exception("The number is odd: " + number);
```

```
        } else {
            System.out.println("The number is even: " + number);
        }
    }

    public static void main(String[] args) {
        try {
            checkEven(3);  // Change this number to test with different values
        } catch (Exception e) {
            System.err.println(e.getMessage());
        }
    }
}
```

OUTPUT:



3. write a java create method that string as input throws an exception does not contain vowel.

```
public class Main {
    public static void checkVowel(String input) throws Exception {
        if (!input.matches(".[AEIOUaeiou].")) {
            throw new Exception("The string does not contain a vowel: " + input);
        } else {
            System.out.println("The string contains a vowel: " + input);
        }
    }
    public static void main(String[] args) {
        try {
            checkVowel("hello");
            checkVowel("teju");
        } catch (Exception e) {
            System.err.println(e.getMessage());
        }
    }
}
```

OUTPUT:

Output

```
java -cp /tmp/3YED3Ml586/Main
The string contains a vowel: hello
The string contains a vowel: teju

=== Code Execution Successful ===
```