Date : 20-01-2024

Experiment - 4.1

Aim:

Write a Java program to demonstrate the use of Java Beans.

Code:

```
public class Person {
    private String name;
    private int age;

    public Person() {}

    public String getName() { return name; }
    public void setName(String name) { this.name = name; }

    public int getAge() { return age; }
    public void setAge(int age) { this.age = age; }

    public static void main(String[] args) {
        Person person = new Person();
        person.setName("Raj");
        person.setAge(24);
        String name = person.getName();
        int age = person.getAge();
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
    }
}
```

Output:

```
[Running] cd "c:\Users\ankus\OneDrive\Desktop\java test\" && javac Person.
java && java Person
Name: Raj
Age: 24
```

Date : 20-01-2024

Experiment - 4.2

Aim:

Write a Java program to demonstrate encapsulation in Java Beans.

Code:

```
public class BankAccount {
    private String accountNumber;
    private double balance;

    public BankAccount() {
    }

    public BankAccount(String accountNumber, double balance) {
        this.accountNumber = accountNumber;
        this.balance = balance;
    }

    public String getAccountNumber() {
        return accountNumber;
    }

    public void setAccountNumber(String accountNumber) {
        this.accountNumber = accountNumber;
    }

    public double getBalance() {
        return balance;
    }

    public void deposit(double amount) {
        if (amount > 0) {
            balance += amount;
            System.out.println(amount + " deposited successfully.");
        } else {
            System.out.println("Invalid amount for deposit.");
        }
    }

    public void withdraw(double amount) {
        if (amount > 0 && balance >= amount) {
            balance -= amount;
            System.out.println(amount + " withdrawn successfully.");
        } else {
```

```
            System.out.println("Insufficient balance or invalid amount for withdrawal.");
        }
    }
    public static void main(String[] args) {
        BankAccount account = new BankAccount();
        account.setAccountNumber("1234567890");
        System.out.println("Welcome, Account Number: " + account.getAccountNumber());
        account.deposit(1000);
        account.withdraw(500);
        System.out.println("Current Balance: $" + account.getBalance());
    }
}
```

Output:

```
[Running] cd "c:\Users\ankus\OneDrive\Desktop\java test\" && javac
BankAccount.java && java BankAccount
Welcome, Account Number: 1234567890
1000.0 deposited successfully.
500.0 withdrawn successfully.
Current Balance: $500.0
```