

Java Project : Bank Functions by Using Interface Concept

Introduction : In this Project, We get the Information of Bank's Functions w.r.t. Continent Level & Private Banks.

To achieve this, we are Using Interface, Class Implementations, Object Creation, Method Calling and Static & Dynamic Polymorphism topics.

We Implement the methods of US Bank & UK Bank (Interfaces) into HSBC Bank & ICICI Bank (Classes).

USBank & UKBank are Interfaces at Parent Level. HSBCBank & ICICIBank are Classes at Child Level. HSBCBank Class implements the methods of USBank & UKBank Interfaces and execute its own methods also.

ICICIBank Class also do the same respectively. For the implementation we have used Interface, Class Implementations, Object Creation, Method Calling and Static & Dynamic Polymorphism concepts.

Code :

```
public interface USBank {
```

```
    int minBal = 100;
```

```
    public void credit();
```

```
    public void debit();
```

```
    public void transferMoney();
```

```
}
```

```
public interface UKBank {
```

```
    int minBal=200;
```

```
    public void shareMarket();
```

```
    public void mutualFund();
```

```
}
```

```
public class HSBCBank implements USBank, UKBank{

    public void credit() {
        System.out.println("HSBC---Credit");
    }
    public void debit() {
        System.out.println("HSBC---Debit");
    }
    public void transferMoney() {
        System.out.println("HSBC---Transfer Money");
    }

    public void shareMarket() {
        System.out.println("HSBC---Share Market");
    }
    public void mutualFund() {
        System.out.println("HSBC---Mutual Fund");
    }

    public void educationLoan() {
        System.out.println("HSBC---Education Loan");
    }
    public void carLoan() {
        System.out.println("HSBC---Car Loan");
    }
}
```

```
public class ICICIBank implements USBank, UKBank{

    public void credit() {
        System.out.println("ICICI---Credit");
    }
    public void debit() {
        System.out.println("ICICI---Debit");
    }
    public void transferMoney() {
        System.out.println("ICICI---Transfer Money");
    }
}
```

```

    }

    public void shareMarket() {
        System.out.println("ICICI---Share Market");
    }

    public void mutualFund() {
        System.out.println("ICICI---Mutual Fund");
    }

    public void personalLoan() {
        System.out.println("ICICI---Personal Loan");
    }
}

```

```

public class TestBank {

    public static void main(String[] args) {

        System.out.println("US Bank Min. Balance Limit :
"+USBank.minBal);
        System.out.println("UK Bank Min. Balance Limit :
"+UKBank.minBal);
        System.out.println("=====");

        HSBCBank hs = new HSBCBank(); // Static Polymorphism
        hs.credit();
        System.out.println("-----");
        hs.shareMarket();
        System.out.println("-----");
        hs.carLoan();
        System.out.println("-----");

        USBank ush = new HSBCBank(); // Dynamic Polymorphism :
Supports only Top-Casting.
        ush.credit();
        System.out.println("-----");
        UKBank ukh = new HSBCBank();
        ukh.shareMarket();
    }
}

```

```
System.out.println("=====");
ICICIBank ic = new ICICIBank();
ic.credit();
System.out.println("-----");
ic.shareMarket();
System.out.println("-----");
ic.personalLoan();
System.out.println("-----");
```

```
        USBank usi = new ICICIBank(); // Dynamic Polymorphism :
Supports only Top-Casting.
        usi.credit();
        System.out.println("-----");
        UKBank uki = new ICICIBank();
        uki.shareMarket();
    }
}
```