

Experiment No. 8 (b)

Aim

Demonstrate the Concept of Hierarchical Inheritance in java.

Source code

```
package java_file;

class Mobile_Phone {

    int model_no;

    String brand;

    String colour;

    float price;

    int battery;

    String type;


    void call() {

        System.out.println(brand+" "+type+" Making a Call !!!");

    }


    void message() {

        System.out.println(brand+" "+type+" Sending Message !!!");

    }


    void camera() {

        System.out.println(brand+" "+type+" Clicked Photo !!!");

    }

}
```

```
void speaker() {  
    System.out.println(brand+" "+type+" Playing Sound !!!");  
}
```

```
void radio() {  
    System.out.println(brand+" "+type+" Playing FM Radio !!!");  
}
```

```
}
```

```
class KeypadPhone extends Mobile_Phone {
```

```
    float keypad_size;
```

```
    KeypadPhone(){
```

```
        type="Keypad Phone";
```

```
        brand="Nokia";
```

```
    }
```

```
}
```

```
class SmartPhone extends Mobile_Phone {
```

```
    float display_size;
```

```
    String Stylus;
```

```
    SmartPhone() {
```

```
        type="Smart Phone";
```

```
        brand="Apple";
```

```
    }
```

```
void finger_print_scanner() {
```

```
    System.out.println(brand+" "+type+" Scanning Finger !!!");
```

```
}
```

```
void face_recognition() {  
    System.out.println(brand+" "+type+" Scanning Face !!!");  
}
```

```
void games () {  
    System.out.println(brand+" "+type+" Playing Video Game !!!");  
}  
}
```

```
class FoldingPhone extends SmartPhone {
```

```
    FoldingPhone() {  
        type="Folding Phone";  
        brand="Samsung";  
    }
```

```
void desktop_mode() {  
    System.out.println(brand+" "+type+" in Desktop Mode !!!");  
}
```

```
void Multiwindow() {  
    System.out.println(brand+" "+type+" using Multi-Window Function !!!");  
}  
}
```

```
public class _8b_Hierarchical_Inheritance {
```

```
    public static void main(String[] args) {  
        FoldingPhone samsung=new FoldingPhone();
```

```
SmartPhone apple=new SmartPhone();

KeypadPhone nokia=new KeypadPhone();


samsung.call();

samsung.desktop_mode();

System.out.println();

apple.call();

apple.games();

System.out.println();

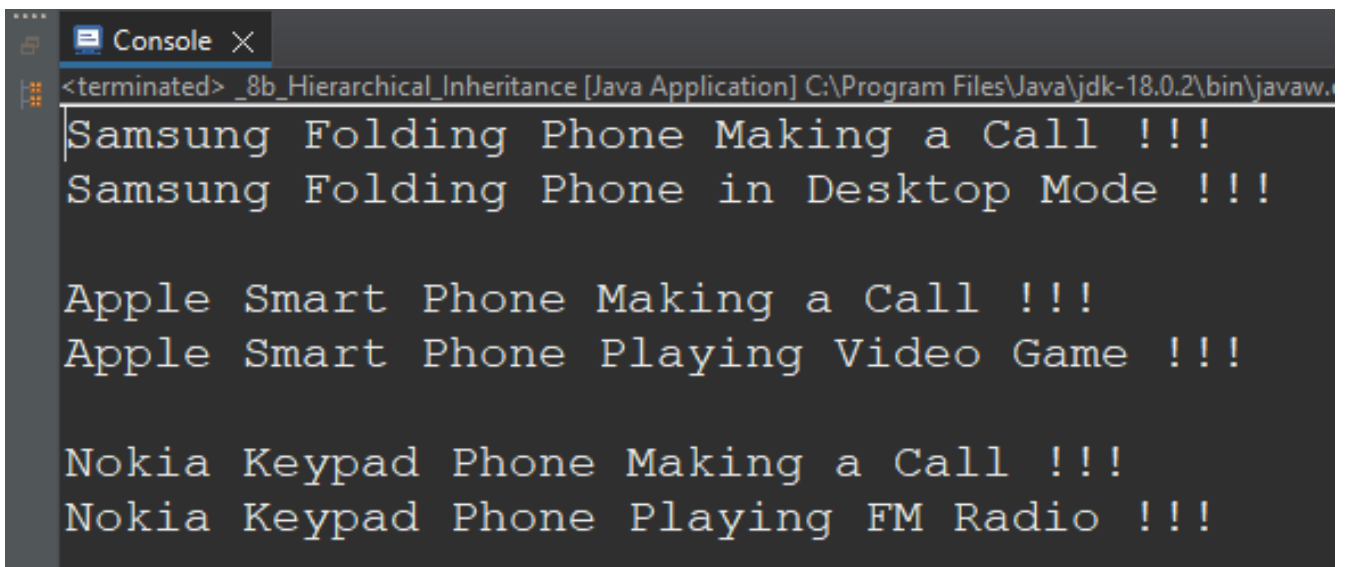
nokia.call();

nokia.radio();

}

}
```

Output



```
<terminated> _8b_Hierarchical_Inheritance [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.  
Samsung Folding Phone Making a Call !!!  
Samsung Folding Phone in Desktop Mode !!!  
  
Apple Smart Phone Making a Call !!!  
Apple Smart Phone Playing Video Game !!!  
  
Nokia Keypad Phone Making a Call !!!  
Nokia Keypad Phone Playing FM Radio !!!
```