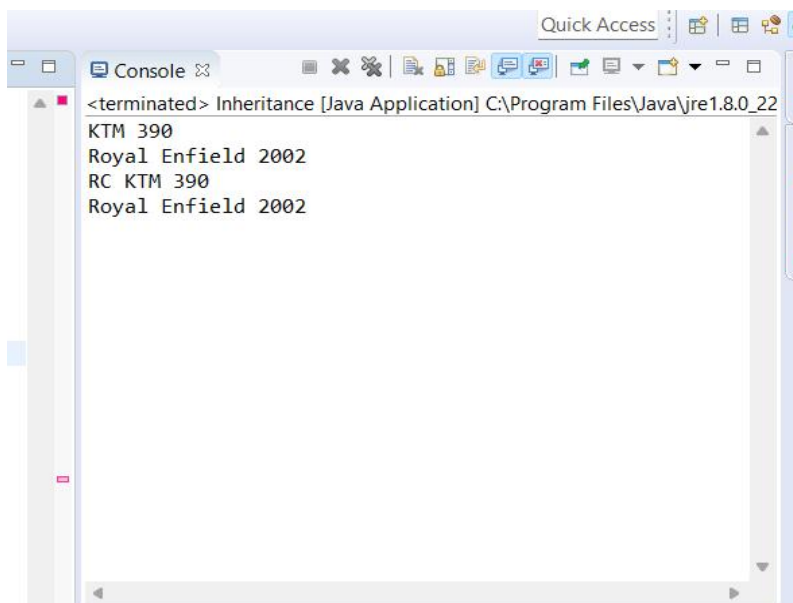CODE : INHERITANCE

```java
package nov19_25;

public class Inheritance {
    public static void main(String[] args) {

        Son1 s1 = new Son1();
        s1.bike();          // Son1 own method
        s1.oldBike();       // Overridden method

        Son2 s2 = new Son2();
        s2.bike();          // Son2 own method
        s2.oldBike();       // Overridden method
    }
}

class GrandFather {
    void oldBike() {
        System.out.println("Royal Enfield 1983");
    }
}

class Father extends GrandFather {   // Single Inheritance
    void oldBike() {                 // Method overriding
        System.out.println("Royal Enfield 2002");
    }
}

class Son1 extends Father {          // Multilevel Inheritance
    void bike() {
        System.out.println("KTM 390");
    }
}

class Son2 extends Father {          // Hierarchical Inheritance
    void bike() {
        System.out.println("RC KTM 390");
    }
}
```
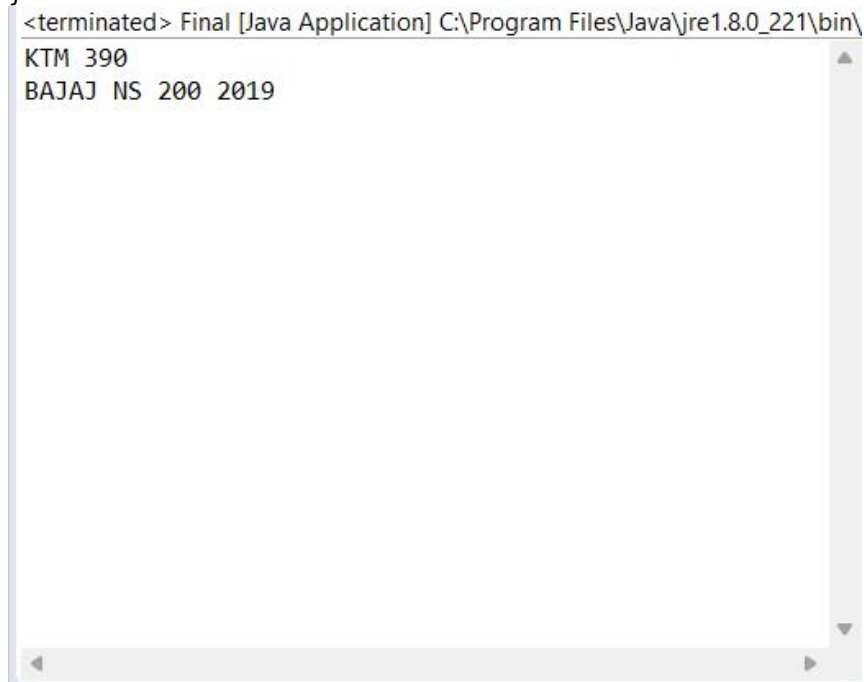
OUTPUT:

CODE:FINAL
```java
package nov19_25;

public class Final {
    public static void main(String[] args) {
        Son5 s = new Son5();
        s.bike();           // Son's own method
        s.Secbike();        // inherited final method from Father5
    }
}

class Father5 {
    // final method cannot be overridden
    final void Secbike() {
        System.out.println("BAJAJ NS 200 2019");
    }
}

class Son5 extends Father5 {
    void bike() {
        System.out.println("KTM 390");
    }
}
```

```
<terminated> Final [Java Application] C:\Program Files\Java\jre1.8.0_221\bin\
KTM 390
BAJAJ NS 200 2019
```

CODE:SUPER
```java
package nov19_25;

public class Super {
    public static void main(String[] args) {
        Son6 s = new Son6();
        s.car();            // Son6's own method
        s.oldCar();         // Son6's overridden method + super call
    }
}

class Father6 {
    String car = "Toyota Corolla 2002";

    void oldCar() {
        System.out.println("Father6's Car: " + car);
    }
}
```
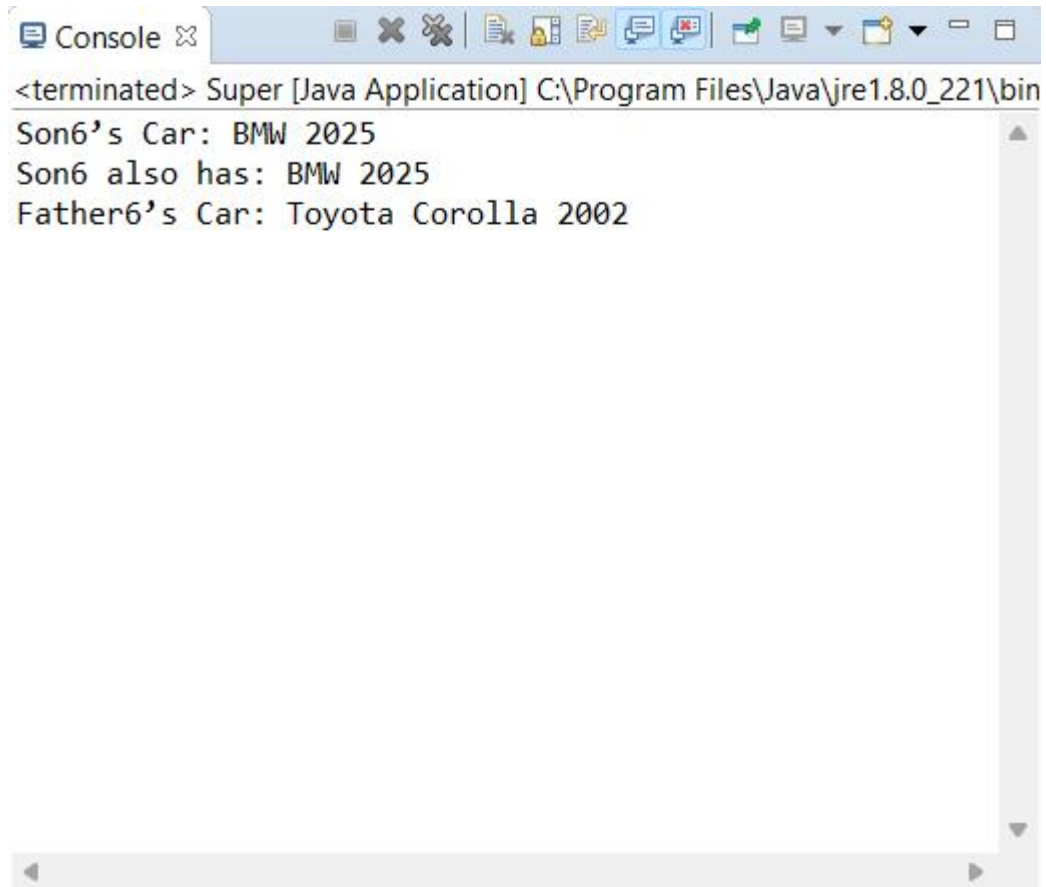
```
}

class Son6 extends Father6 {
    String car = "BMW 2025";

    void car() {
        System.out.println("Son6's Car: " + car);
    }

    @Override
    void oldCar() {
        System.out.println("Son6 also has: " + car);
        super.oldCar();    // calls Father6's version explicitly
    }
}
```

OUTPUT:

Console ⊠   ▣ ✖ ✖ | 🔲 🔲 🔲 🔲 🔲 | 🔲 🔲 ▾ 🔲 ▾ ▭ 🔲

<terminated> Super [Java Application] C:\Program Files\Java\jre1.8.0_221\bin

Son6's Car: BMW 2025
Son6 also has: BMW 2025
Father6's Car: Toyota Corolla 2002