

PRACTICAL:19

AIM: Write an application that illustrates method overriding in the same package and different packages. Also demonstrate accessibility rules in inside and outside packages.

Method Overriding:

- If subclass (child class) has the same method as declared in the parent class, it is known as method overriding in Java.
- Method overriding is used to provide the specific implementation of a method which is already provided by its super class.
- Method overriding is used for runtime polymorphism.

Rules for Java Method Overriding:

- The method must have the same name as in the parent class.
- The method must have the same parameter as in the parent class.
- There must be an IS-A relationship (inheritance).

PROGRAM(Same package):

```
package First_package;
```

```
class A
```

```
{
```

```
    void display()
```

```
    {
```

```
        System.out.println("This is Display method of A class");
```

```
    }
```

```
}
```

```
class B extends A
```

```
{
```

```
    void display()
```

```
    {
```

```
        System.out.println("This is Display method of B class");
```

```
    }
```

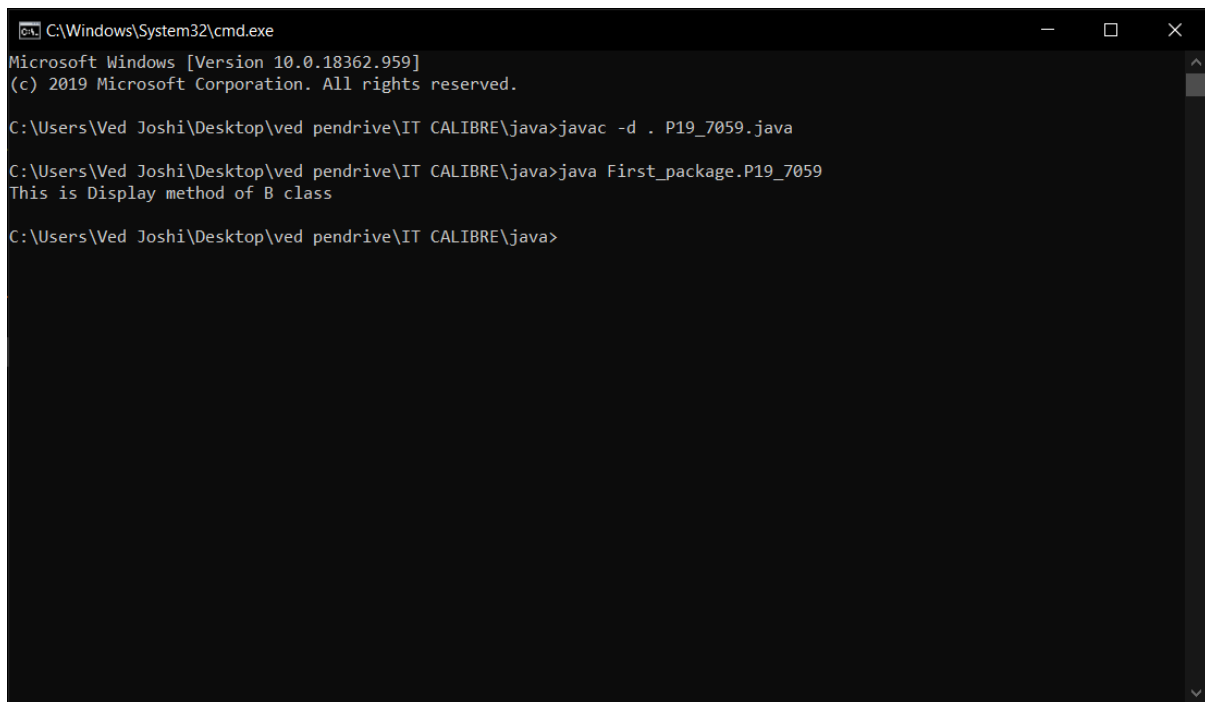
```
}
```

```
public class P19_7059
```

```
{
```

```
    public static void main(String args[])
    {
        B b1=new B();
        b1.display();
    }
}
```

OUTPUT(Same package):



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.959]
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C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>javac -d . P19_7059.java

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>java First_package.P19_7059
This is Display method of B class

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>
```

PROGRAM(Different package):**File 1(B.java)**

```
package F_package;

public class B
{
    public void display()
    {
        System.out.println("This is Display method of B class");
    }
}
```

File 2(P19_1_7059.java)

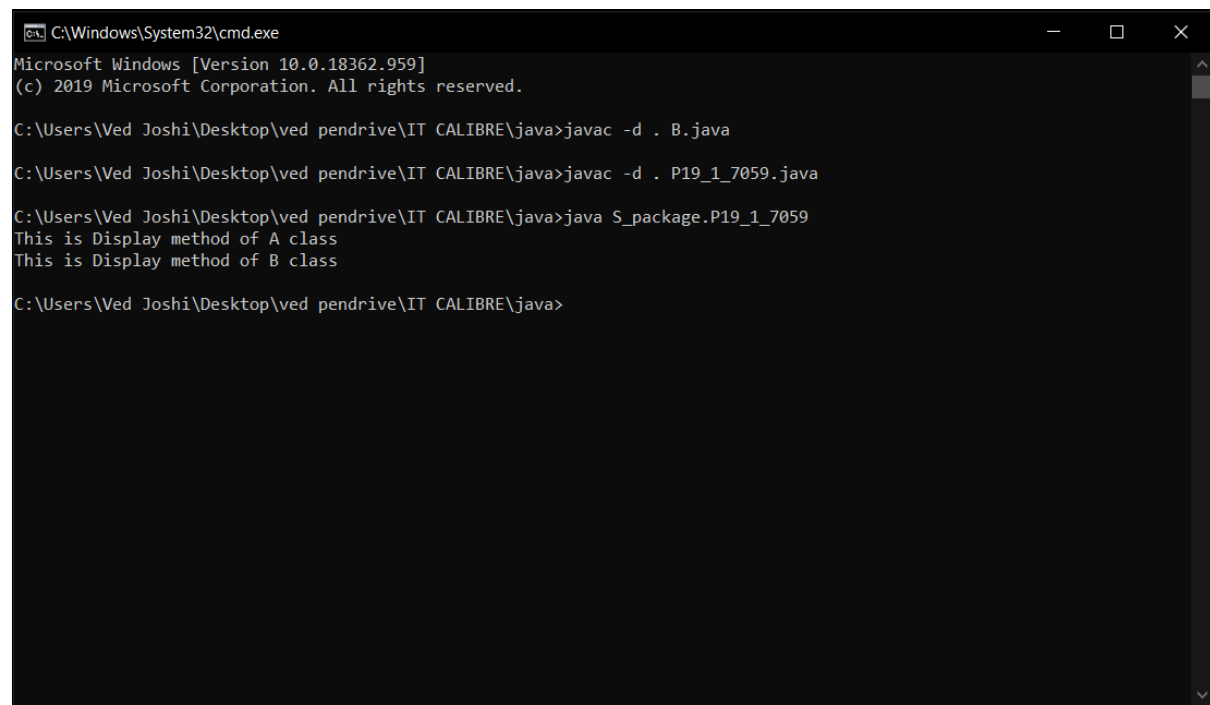
```
package S_package;

import F_package.B;

public class P19_1_7059 extends B
{
    public void display()
    {
        System.out.println("This is Display method of A class");
    }

    public static void main(String args[])
    {
        P19_1_7059 d1=new P19_1_7059();
        B m1=new B();
        d1.display();
        m1.display();
    }
}
```

OUTPUT(Different package):



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.959]
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C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>javac -d . B.java

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>javac -d . P19_1_7059.java

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>java S_package.P19_1_7059
This is Display method of A class
This is Display method of B class

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>
```