

## 23BAI1117 – BCSE103E – Java

13/08/2024 – Day8

<https://github.com/sriram-s-23BAI1117/javap>

1)

```
J EncapEx1_1.java > ...
1  public class EncapEx1_1{
2      private String name;
3
4      public String getName(){
5          return name;
6      }
7
8      public void setName(String name){
9          this.name = name;
10     }
11 }
```

```
J EncapEx1_2.java > ...
1  public class EncapEx1_2{
2      Run | Debug
3      public static void main(String[] args) {
4          EncapEx1_1 myObj = new EncapEx1_1();
5          myObj.setName(name:"John");
6          System.out.println(myObj.getName());
7      }
8  }
```

```
PS E:\Day8-13-08-24> & 'C:\Program Files\Microsoft Visual Studio\2022\Enterprise\student.PROGRAMMING404\AppData\Roaming\Microsoft\Windows\CurrentVersion\Explorer\Recent\John'
```

2)

J InheritEx1\_1.java > ...

```
1 public class InheritEx1_1 {    //vechicle
2     protected String brand = "Ford";
3     public void honk(){
4         System.out.println(x:"Tuut, tuut!");
5     }
6 }
```

J InheritEx1\_2.java > ...

```
1 public class InheritEx1_2 extends InheritEx1_1{ //car
2     private String modelName = "Mustang";
3     public static void main(String[] args) {
4         InheritEx1_2 myFastCar = new InheritEx1_2();
5         myFastCar.honk();
6         System.out.println(myFastCar.brand+" "+myFastCar.modelName);
7     }
8 }
```

```
PS E:\Day8-13-08-24> & 'C:\Program Files
age\51fa10e7982341c9895d73dd5b62c2a3\redh
Tuut, tuut!
Ford Mustang
```

```

1  class Animal { //PolyEx1
2      public void animalSound(){
3          System.out.println(x:"The animal makes a sound");
4      }
5  }
6
7  class Pig extends Animal{
8      public void animalSound(){
9          System.out.println(x:"The pig says: wee wee");
10     }
11 }
12
13 class Dog extends Animal{
14     public void animalSound(){
15         System.out.println(x:"The dog says: bow bow");
16     }
17 }
18
19 public class PolyEx1{
20     Run | Debug
21     public static void main(String[] args) {
22         Animal myAnimal = new Animal();
23         Animal myPig = new Pig();
24         Animal myDog = new Dog();
25
26         myAnimal.animalSound();
27         myPig.animalSound();
28         myDog.animalSound();
29     }
30 }

```

```
PS E:\Day8-13-08-24> & 'C:\Program Files\Java\jdk-11.0.10\bin\java.exe' -Xmx1024M -Xms128M -jar C:\Program Files\Java\jdk-11.0.10\bin\redhat.java\jdt_ws\Day8\src\main\java\com\redhat\animal\Animal.java
The animal makes a sound
The pig says: wee wee
The dog says: bow bow
```

4)

```
J PolyEx2.java > ...
1  class OuterClass{
2      int x = 10;
3
4      class InnerClass{
5          int y = 5;
6      }
7  }
8
9  public class PolyEx2 {
10     Run | Debug
11     public static void main(String[] args) {
12         OuterClass myOuter = new OuterClass();
13         OuterClass.InnerClass myInner = myOuter.new InnerClass();
14         System.out.println(myInner.y + myOuter.x);
15     }
16 }
```

```
PS E:\Day8-13-08-24> & 'C:\Program Files\Java\jdk1.
'-cp' 'C:\Users\student.PROGRAMMING404\AppData\Roam
0b33\bin' 'PolyEx2'
15
```

5)

```
J PolyEx3.java
1  class OuterClass{
2      int x = 10;
3
4      static class InnerClass{
5          int y = 5;
6      }
7  }
8
9  public class PolyEx3 {
10     Run | Debug
11     public static void main(String[] args) {
12         OuterClass.InnerClass myInner = new OuterClass.InnerClass();
13         System.out.println(myInner.y);
14     }
15 }
```

```
E:\Day8-13-08-24>java PolyEx3
5
```

6)

```
J PolyEx4.java > ...
1  class OuterClass{
2      int x = 10;
3
4      class InnerClass{
5          public int myInnerMethod(){
6              return x;
7          }
8      }
9  }
10
11 public class PolyEx4 {
12     Run | Debug
13     public static void main(String[] args) {
14         OuterClass myOuter = new OuterClass();
15         OuterClass.InnerClass myInner = myOuter.new InnerClass();
16
17         System.out.println(myInner.myInnerMethod());
18     }
19 }
```

```
E:\Day8-13-08-24>java PolyEx4
10
```

7)

```
J PolyEx5.java > ...
1  abstract class Animal {
2      public abstract void animalSound();
3      public void sleep(){
4          System.out.println(x:"Zzz");
5      }
6  }
7
8  class Pig extends Animal{
9      public void animalSound(){
10         System.out.println(x:"The pig says: wee wee");
11     }
12 }
13
14 public class PolyEx5 {
15     Run | Debug
16     public static void main(String[] args) {
17         Pig myPig = new Pig();
18         myPig.animalSound();
19         myPig.sleep();
20     }
21 }
```

```
PS E:\Day8-13-08-24> java PolyEx5
The pig says: wee wee
Zzz
```

8)

```
J InterfaceEx1.java > ...
1  interface Animal {
2      public void animalSound();
3      public void sleep();
4  }
5  class Pig implements Animal{
6      public void animalSound(){
7          System.out.println(x:"The pig says: wee wee");
8      }
9      public void sleep(){
10         System.out.println(x:"Zzz");
11     }
12 }
13
14 public class InterfaceEx1 {
15     Run | Debug
16     public static void main(String[] args) {
17         Pig mPig = new Pig();
18         mPig.animalSound();
19         mPig.sleep();
20     }
21 }
```

```
PS E:\Day8-13-08-24> java InterfaceEx1
The pig says: wee wee
Zzz
```