

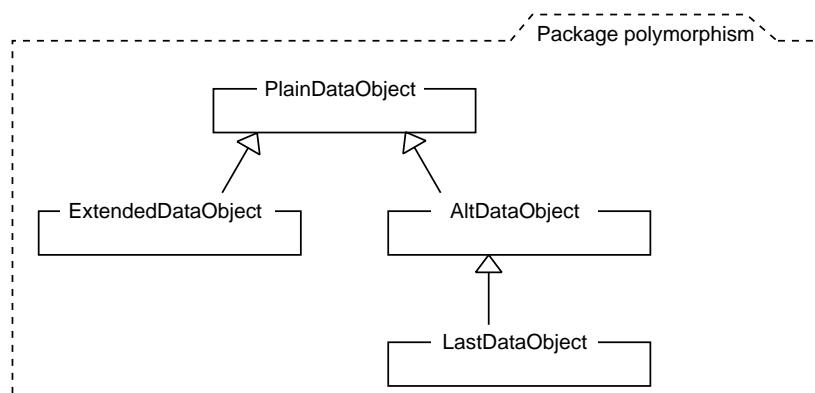
Sample programmms OOP May 2014

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1 Program Constructors

The following classes belong to the package polymorphism.

```
1 public abstract class PlainDataObject {  
2     public int idNumber = 99;  
3     public String dataName = "No name";  
4  
5     public PlainDataObject() {  
6     }  
7     public PlainDataObject(int id, String name) {  
8         idNumber = id;  
9         dataName = name;  
10    }  
11    public void print() {  
12        System.out.printf("DataObject: id: %3d ", idNumber);  
13        System.out.print(", name: " + dataName);  
14        return;  
15    }  
16 }  
  
1 public class ExtendedDataObject extends PlainDataObject {  
2     public int value;  
3  
4     public ExtendedDataObject() {  
5         super(33, "extendedDO");  
6         value = 44;  
7     }  
8     public ExtendedDataObject(int num, String name) {  
9         dataName = name;  
10        value = num;  
11    }  
12    public void print() {  
13        super.print();  
14        System.out.print(", value: " + value);  
15    }  
16 }
```



```
1 public class AltDataObject extends PlainDataObject {
2     protected int value = 10;
3
4     AltDataObject(){}
5     AltDataObject(String name){
6         dataName = name;
7         value = 333;
8     }
9     public void print() {
10        super.print();
11        int tmp = value + idNumber;
12        System.out.print(", tmp: " + tmp);
13    }
14 }
```



```
1 public class LastDataObject extends AltDataObject {
2     private String dataMsg;
3     protected LastDataObject() {}
4
5     LastDataObject(String msg) {
6         super("Anne");
7         dataMsg = msg;
8     }
9     public void print() {
10        super.print();
11        System.out.print(" LastDataObject " + dataMsg);
12    }
13 }
```

The `main()`-Method:

```
1 public static void main(String[] args) {
2     PlainDataObject myObject = new AltDataObject();
3     myObject.print();
4     System.out.println();
5     myObject = new ExtendedDataObject();
6     myObject.print();
7     System.out.println();
8     myObject = new ExtendedDataObject(99, "Bob");
9     myObject.print();
10    System.out.println();
11    AltDataObject ado = new LastDataObject("bye bye . . .");
12    ado.print();
13    System.out.println();
14 }
```