

# ASSIGNMENT-7

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PROGRAM :-

```
1 ▾ interface BikeParts {
2     String MAKE = "Oracle Bikes";
3     String getHandleBars();
4     void setHandleBars(String newValue);
5     String getTyres();
6     void setTyres(String newValue);
7     String getSeatType();
8     void setSeatType(String newValue);
9 }
10 ▾ interface MountainParts {
11     String TERRAIN = "off_road";
12     String getSuspension();
13     void setSuspension(String newValue);
14     String getType();
15     void setType(String newValue);
16 }
17 ▾ interface RoadParts {
18     String TERRAIN = "track_racing";
19     String getTyreWidth();
20     void setTyreWidth(String newValue);
21     String getPostHeight();
22     void setPostHeight(String newValue);
23 }
24 ▾ class Bike implements BikeParts {
25     private String handleBars;
26     private String tyres;
27     private String seatType;
28 ▾     public String getHandleBars() {
29         return handleBars;
```

```
30     }
31     public void setHandleBars(String newValue) {
32         this.handleBars = newValue;
33     }
34     public String getTyres() {
35         return tyres;
36     }
37     public void setTyres(String newValue) {
38         this.tyres = newValue;
39     }
40     public String getSeatType() {
41         return seatType;
42     }
43     public void setSeatType(String newValue) {
44         this.seatType = newValue;
45     }
46 }
47 class MountainBike extends Bike implements MountainPart {
48     private String suspension;
49     private String type;
50     public String getSuspension() {
51         return suspension;
52     }
53     public void setSuspension(String newValue) {
54         this.suspension = newValue;
55     }
56     public String getType() {
57         return type;
58     }
```

```
59 ▾    public void setType(String newValue) {
60        this.type = newValue;
61    }
62 }
63 ▾ class RoadBike extends Bike implements RoadParts {
64     private String tyreWidth;
65     private String postHeight;
66 ▾    public String getTyreWidth() {
67        return tyreWidth;
68    }
69 ▾    public void setTyreWidth(String newValue) {
70        this.tyreWidth = newValue;
71    }
72 ▾    public String getPostHeight() {
73        return postHeight;
74    }
75 ▾    public void setPostHeight(String newValue) {
76        this.postHeight = newValue;
77    }
78 }
79 ▾ public class BikeDriver {
80 ▾    public static void main(String[] args) {
81        Bike bike = new Bike();
82        MountainBike mountainBike = new MountainBike();
83        RoadBike roadBike = new RoadBike();
84        bike.setHandleBars("Drop Bars");
85        bike.setTyres("Mountain Tyres");
86        bike.setSeatType("Comfortable Seat");
87        mountainBike.setHandleBars("Flat Bars");
```

```
88     mountainBike.setTyres("Knobby Tyres");
89     mountainBike.setSeatType("Racing Seat");
90     mountainBike.setSuspension("Full Suspension");
91     mountainBike.setType("Trail Bike");
92     roadBike.setHandleBars("Drop Bars");
93     roadBike.setTyres("Thin Tyres");
94     roadBike.setSeatType("Comfortable Seat");
95     roadBike.setTyreWidth("23mm");
96     roadBike.setPostHeight("22");
97     System.out.println("Initial RoadBike Post Height: " +
        roadBike.getPostHeight());
98     roadBike.setPostHeight("20");
99     System.out.println("Updated RoadBike Post Height: " +
        roadBike.getPostHeight());
100 }
101 }
```

OUTPUT :-

```
java -cp /tmp/IpTMWVSrso/BikeDriver
Initial RoadBike Post Height: 22
Updated RoadBike Post Height: 20

=== Code Execution Successful ===
```