

Experiment – 5

Aim – Prototype method

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FoodItem.java

```
package prototype;

public class FoodItem {
    private int price;
    private String Item;

    public int getPrice() {
        return price;
    }

    public void setPrice(int price) {
        this.price = price;
    }

    public String getItem() {
        return Item;
    }

    public void setItem(String item) {
        Item = item;
    }

    @Override
    public String toString() {
        return "FoodItem{" + "price=" + price + ", Item='" + Item + '\'' + '}';
    }
}
```

Restaurant.java

```
package prototype;

import java.util.ArrayList;
import java.util.List;

public class Restaurant {
    private String hotelName;
    List<FoodItem> items = new ArrayList<>();

    public String getHotelName() {
        return hotelName;
    }

    public void setHotelName(String hotelName) {
```

```

        this.hotelName = hotelName;
    }

    public List<FoodItem> getItems() {
        return items;
    }

    public void setItems(List<FoodItem> items) {
        this.items = items;
    }

    public void LoadData(){
        for (int i = 1; i <4; i++) {
            FoodItem f = new FoodItem();
            f.setPrice(i);
            f.setItem("FoodItem"+i);
            getItems().add(f);
        }
    }

    @Override
    public String toString() {
        return "Restaurant {" + " hotelName='" + hotelName + '\'' + ",
items=" + items + '\'';
    }

    @Override
    protected Restaurant clone() throws CloneNotSupportedException {
        Restaurant r = new Restaurant();
        for (FoodItem f : this.getItems()){
            r.getItems().add(f);
        }
        return r;
    }
}

```

Main.java

```

package prototype;

public class Main{

    public static void main(String[] args) throws
CloneNotSupportedException {

        Restaurant obj = new Restaurant();
        obj.setHotelName("Seasons");
        obj.LoadData();

        Restaurant obj2 = obj.clone();
        obj2.getItems().remove(1);
        obj2.setHotelName("Sankalp");

        System.out.println(obj);
        System.out.println(obj2);

    }
}

```

Output –

Restaurant { hotelName='Seasons', items=[FoodItem{price=1, Item='FoodItem1'}, FoodItem{price=2, Item='FoodItem2'}, FoodItem{price=3, Item='FoodItem3'}]}

Restaurant { hotelName='Sankalp', items=[FoodItem{price=1, Item='FoodItem1'}, FoodItem{price=3, Item='FoodItem3'}]}