

# Prototype Design Pattern

- Program

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

class Freelancer{
    private String name;
    private String field;

    public String getName(){
        return name;
    }
    public void setName(String name){
        this.name = name;
    }
    public String getField(){
        return field;
    }
    public void setField(String field){
        this.field = field;
    }
    @Override
    public String toString(){
        return "Freelancer\n Name : " + name + "\n
Field : " + field;
    }
}

class Site implements Cloneable{
    private String siteName;
    List<Freelancer> fls = new ArrayList<>();
    public String getSiteName(){
        return siteName;
    }
    public void setSiteName(String siteName){
```

```

        this.siteName = siteName;
    }
    public List<Freelancer> getFreelancers(){
        return fls;
    }
    public void setFreelancers(List<Freelancer> fls){
        this.fls = fls;
    }
    public void loadData(){
        for(int i=1; i<=5; i++){
            Freelancer f = new Freelancer();
            f.setName("Freelancer "+i);
            f.setField("Field "+i);
            getFreelancers().add(f);
        }
    }
    @Override
    public String toString(){
        return "Website\n Site Name : " + siteName +
"\n Freelancers : " + fls;
    }
    @Override
    protected Site clone() throws
CloneNotSupportedException{
        Site s = new Site();
        for(Freelancer f : this.getFreelancers()){
            s.getFreelancers().add(f);
        }
        return s;
    }
}

```

```

public class PrototypeDP {
    public static void main(String[] args) throws
CloneNotSupportedException {
        Site s1 = new Site();
        s1.setSiteName("Site - 1");
        s1.loadData();

        Site s2 = s1.clone();
    }
}

```

```
s1.getFreelancers().remove(2);  
s2.setSiteName("Site - 2");  
  
System.out.println(s1);  
System.out.println(s2);  
}  
}
```

- Output

```
Website  
Site Name : Site - 1  
Freelancers : [Freelancer  
Name : Freelancer 1  
Field : Field 1, Freelancer  
Name : Freelancer 2  
Field : Field 2, Freelancer  
Name : Freelancer 4  
Field : Field 4, Freelancer  
Name : Freelancer 5  
Field : Field 5]  
Website  
Site Name : Site - 2  
Freelancers : [Freelancer  
Name : Freelancer 1  
Field : Field 1, Freelancer  
Name : Freelancer 2  
Field : Field 2, Freelancer  
Name : Freelancer 3  
Field : Field 3, Freelancer  
Name : Freelancer 4  
Field : Field 4, Freelancer  
Name : Freelancer 5  
Field : Field 5]
```