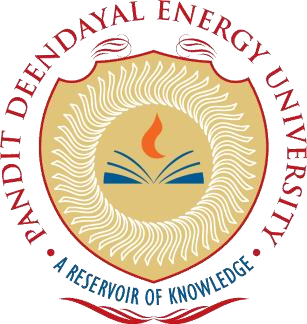
# Design Pattern Lab (20CP210P)

# Assignment 6



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# Interface JourneyPrototype

public interface JourneyPrototype {

public JourneyPrototype clone( String journey\_2 ); }

Class Location :

public class Location {  
 public String locName;  
 public int x;  
 public int y;  
  
 public Location(){  
 this.locName = "";  
 }  
  
 public Location(String name){  
 this.locName = name;  
 }  
  
 public Location ( String name , int x , int y ) {  
 this.locName = name;  
 this.x = x;  
 this.y = y;  
 }  
}

Class Journey :

import java.util.ArrayList;  
import java.util.HashMap;  
import java.util.Scanner;  
  
 public class Journey implements JourneyPrototype{  
  
 String jName;  
 ArrayList<Location> journey = new ArrayList<Location>();  
  
  
 // >>>>>>>> Getters and setters >>>>>>>>>  
  
 // (1) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>  
 public String getjName() {  
 return jName;  
 }  
 // (2) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>  
 public ArrayList<Location> getJourney() {  
 return journey;  
 }  
 // (3) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>  
 public void setJourney() {  
  
 System.*out*.println("Enter the location you want to add ");  
 HashMap<Integer , String> map = new HashMap<>();  
 map.put(1,"Somnath");  
 map.put(2,"Junagadh");  
 map.put(3,"Jetpur");  
 map.put(4,"Rajkot");  
 map.put(5,"Amdavad");  
 map.put(6,"Jaipur");  
 map.put(7,"Delhi");  
 map.put(8,"Manali");  
  
 for ( int i = 0 ; i < 8 ; i++ ){  
 System.*out*.println( i + " " + map.get(i) );  
 }  
  
 System.*out*.println("How many Location you want to include in this Journey ??");  
 Scanner sc = new Scanner(System.*in*);  
 int numofLoc = sc.nextInt();  
  
 for ( int i = 1 ; i <= numofLoc ; i++ ) {  
 int keyForMap = sc.nextInt();  
 journey.add(new Location ( map.get(keyForMap) ) );  
 }  
  
 System.*out*.println("Location added succesfully");  
  
 }  
  
 // (4) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>  
 public void setrName(String rName) {  
 this.jName = rName;  
 }  
  
  
  
  
 // >>>>> Constructors >>>>>>  
 public Journey() {  
 this.jName = "";  
 }  
 public Journey(String name) {  
 this.jName = name;  
 }  
  
  
 // Clone method  
 public Journey clone(String journey2 ) {  
 Journey j = new Journey( journey2 );  
 j.journey = this.journey;  
 return j;  
 }  
  
 // To String  
 public void printJourney() {  
 System.*out*.println("Journey name is : " + jName );  
 String text = "";  
 for ( int i = 0 ; i < journey.size() ; i++ ) {  
 text += " " + journey.get(i).locName + " -> ";  
 }  
 System.*out*.println(text);  
 }  
  
 }

# Class Main

public class Main {  
 public static void main(String[] args) {  
  
 // Here " Regular-SomnathExpress " and " Luxury-SomnathExpress " Both are diffrent train/bus  
 // ... but both follows same path so we can use clone method  
  
 Journey j1 = new Journey("Regular-SomnathExpress");  
 j1.setJourney();  
  
 j1.printJourney();  
  
 Journey j2 = j1.clone("Luxury-SomnathExpress");  
 j2.printJourney();  
  
  
 }  
}

Output :

