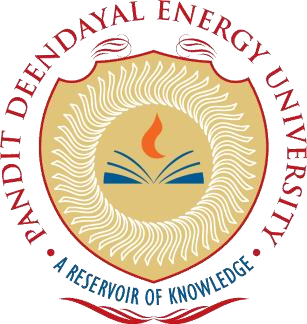
# Design Pattern Lab (20CP210P)

# Assignment 9



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Interface Bus

interface Bus {  
 void getLocation();  
}

Interface Train

public interface Train {  
 void getLocationLocal();  
 void getLocationExpress();  
}

Class Adapter

import java.util.Scanner;  
  
public class Adapter implements Bus {  
 Train TrainTracker;  
  
 public Adapter ( String TrainType ) {  
 if ( TrainType.equalsIgnoreCase("local")){  
 TrainTracker = new LocalTracking();  
 }else if ( TrainType.equalsIgnoreCase("express")){  
 TrainTracker = new ExpressTracking();  
 }else {  
 System.*out*.println("Enter Valid Train type");  
 }  
 }  
  
 @Override  
 public void getLocation() {  
  
 String train\_type;  
 System.*out*.println("Enter the type of train : ");  
 Scanner sc = new Scanner(System.*in*);  
 train\_type = sc.nextLine();  
  
  
 if ( train\_type.equalsIgnoreCase("local")){  
 TrainTracker.getLocationLocal();  
 }else if ( train\_type.equalsIgnoreCase("express")){  
 TrainTracker.getLocationExpress();  
 }else {  
 System.*out*.println("Enter Valid Train type");  
 }  
 }  
}

Class BusTracing

import java.util.Scanner;  
  
public class BusTracking implements Bus {  
  
 String location = "Bus:Rajkot";  
 void setLocation(String loc){  
 this.location = loc;  
 }  
  
 @Override  
 public void getLocation() {  
 System.*out*.println("Your Bus is currently at location : " + location );  
 }  
  
}

Class LocalTracking

public class LocalTracking implements Train {  
  
 String location = "LocTrain:Rajkot";  
 void setLocation(String loc){  
 this.location = loc;  
 }  
  
 @Override  
 public void getLocationLocal() {  
 System.*out*.println("Your Local Train is currently at location : " + location );  
 }  
  
 @Override  
 public void getLocationExpress() {  
 //  
 }  
}

Class ExpressTracking

public class ExpressTracking implements Train {  
  
 String location = "ExpTrain:Rajkot";  
 void setLocation(String loc){  
 this.location = loc;  
 }  
  
 @Override  
 public void getLocationLocal() {  
 //  
 }  
  
 @Override  
 public void getLocationExpress() {  
 System.*out*.println("Your Express Train is currently at location : " + location );  
 }  
}

Class Tracker

import java.util.Scanner;  
  
public class Tracker implements Bus{  
  
 Adapter adapter;  
 @Override  
 public void getLocation() {  
 System.*out*.println("Input Bus or Train For Tracking : ");  
 String bus\_or\_train ;  
 Scanner sc = new Scanner(System.*in*);  
 bus\_or\_train = sc.nextLine();  
  
 if( bus\_or\_train.equalsIgnoreCase("bus")){  
 BusTracking bt = new BusTracking();  
 bt.getLocation();  
 }  
  
 else if ( bus\_or\_train.equalsIgnoreCase("localtrain")){  
 LocalTracking lt = new LocalTracking();  
 lt.getLocationLocal();  
 }  
  
 else if ( bus\_or\_train.equalsIgnoreCase("expresstrain")){  
 ExpressTracking et = new ExpressTracking();  
 et.getLocationExpress();  
 }  
  
 else {  
 System.*out*.println("Enter Valid Bus or Train type ");  
 }  
 }  
}

Class Main

public class Main {  
 public static void main(String[] args) {  
 Tracker tracker = new Tracker();  
 tracker.getLocation();  
 tracker.getLocation();  
 tracker.getLocation();  
 }  
}

Output :

