**\*\* FinalVariableExample.java\*\***

package javaPrjChap1;

import java.util.Scanner;

/\*\*

\* This class is used to understand the use of final keyword with instance and local variables.

\* We use the example of a ticket booking window.

\*/

public class FinalVariableExample {

public final int TOTAL\_TICKETS; //we can skip initializing final variable here.

//or we can use the following syntax which initializes the final variable at the time of declaration

// public final int totalTickets=200;

public int tktsAvailable=0;

/\*\*

\* The class constructor is used to initialise the final instance variable, TOTAL\_TICKETS

\* @param totTkc

\*/

public FinalVariableExample(int totTkc)

{

//initialising a final variable.

this.TOTAL\_TICKETS = totTkc;

}

/\*\*

\* This method takes the day of the week from the user and sets the no of available tickets for sale on

\* that day.

\* Monday,Tuesday,Wednesday,Thursday - 150

\* Friday - ALL TICKETS

\* Saturday, Sunday - 175

\*/

public void setAvailableTkts(String wkDy)

{

//Depending on the day of the week, we set the available tickets count. For this we are

//using switch case implementation of case list and arrow case as per JDK21 version

switch(wkDy) {

case "Mon","Tue","Wed","Thur"->

{

tktsAvailable = 150;

}

case "Fri"->

{

tktsAvailable = 200;

}

case "Sat","Sun"->

{

tktsAvailable = 175;

}

default->

tktsAvailable = 0;

}

}

public boolean bookTickets(final int noOfTkts)

{

final double TKTPRC =150.50; //assign some ticket price to the local variable.

double tktAmount=0.0;

//check if the noOfTkts are less than the total tickets. proceed with the booking then. else return false

if(noOfTkts < tktsAvailable) {

tktAmount = TKTPRC\*noOfTkts;

System.out.println("Please pay: "+tktAmount+" at the ticket counter.");

//updating available tickets count.

tktsAvailable = tktsAvailable - noOfTkts;

}

else

return false;

return true;

}

public static void main(String arg[]) {

FinalVariableExample fnVrObj = new FinalVariableExample(120);

fnVrObj.setAvailableTkts("Mon");

System.out.println("Available tickets are:"+ fnVrObj.tktsAvailable);

if(fnVrObj.bookTickets(100))

System.out.println("Tickets are booked!! Please pay the amount");

else

System.out.println("Tickets could not be booked. Better luck next time");

System.out.println("Available tickets are:"+ fnVrObj.tktsAvailable);

if(fnVrObj.bookTickets(70))

System.out.println("Tickets are booked!! Please pay the amount");

else

System.out.println("Tickets could not be booked. Better luck next time");

}

}

**\*\*Printer.java\*\***  
package javaPrjChap1;

import java.util.Scanner;

public class Printer {

String model;

String location;

String choice;

public void print()

{

System.out.println("I will print all the pages in black and white");

}

public void print(boolean flag)

{

System.out.println("I will print all the pages in colours!!");

}

public void printChoice()

{

System.out.println("Hello user! Enter Yes/yes if you want a colour print. Else enter No/no");

Scanner sc = new Scanner(System.in);

choice = sc.next();

if(choice.equalsIgnoreCase("Yes"))

{

//call print() for colour copies

print(true);

}

else if(choice.equalsIgnoreCase("No"))

{

//call print for black and white

print();

}

else

System.out.println("You have entered some incorrect input choice.");

}

}

**\*\*PolymorphismDemo.java\*\***

package pkgPolymorphism;

import java.util.\*;

public class PolymorphismDemo {

public static void main(String ar[])

{

String chc;

//create object of printer class

Printer prtntObj = new Printer();

System.out.println("Enter YES if you want a colour print else enter NO");

Scanner sc = new Scanner(System.in);

chc = sc.next();

if(chc.equalsIgnoreCase("YES")) {

//this is when the user wants a colour print

prtntObj.printPaper(true);

}

else if(chc.equalsIgnoreCase("NO")) {

//thisis when the user wants a black and white print

prtntObj.printPaper();

}

else

System.out.println("Your input does not match");

}

}//end of class

**\*\*StaticExample.java\*\***

package chap1;

import java.util.Scanner;

/\*\*

\* This class is used to understand the working of static keyword with a variable using multiple ticket

\* booking windows scenario

\*/

public class StaticExample {

public final int TOTAL\_TICKETS = 200;

public int tktsAvailable=0;

/\*\*

\* This method takes the day of the week from the user and sets the no of available tickets for sale on

\* that day.

\* Monday,Tuesday,Wednesday,Thursday - 150

\* Friday - ALL TICKETS

\* Saturday, Sunday - 175

\*/

public void setAvailableTkts(String wkDy)

{

//Depending on the day of the week, we set the available tickets count. For this we are

//using switch case implementation of case list and arrow case as per JDK21 version

switch(wkDy) {

case "Mon","Tue","Wed","Thur"->

{

tktsAvailable = 150;

}

case "Fri"->

{

tktsAvailable = 200;

}

case "Sat","Sun"->

{

tktsAvailable = 175;

}

default->

tktsAvailable = 0;

}

}

public boolean bookTickets(final int noOfTkts)

{

final double TKTPRC =150.50; //assign some ticket price to the local variable.

double tktAmount=0.0;

//check if the noOfTkts are less than the total tickets. proceed with the booking then. else return false

if(noOfTkts < tktsAvailable) {

tktAmount = TKTPRC\*noOfTkts;

System.out.println("Please pay: "+tktAmount+" at the ticket counter.");

//updating available tickets count.

tktsAvailable = tktsAvailable - noOfTkts;

}

else

return false;

return true;

}

public static void main(String ar[])

{

StaticExample stExObj1 = new StaticExample();

StaticExample stExObj2 = new StaticExample();

StaticExample stExObj3 = new StaticExample();

stExObj1.setAvailableTkts("Mon");

stExObj2.setAvailableTkts("Mon");

stExObj3.setAvailableTkts("Mon");

//invoke booking method on all the three objects. print the total tickets

System.out.println("Available tickets are:"+ stExObj1.tktsAvailable);

if(stExObj1.bookTickets(100))

System.out.println("Tickets are booked!! Please pay the amount");

else

System.out.println("Tickets could not be booked. Better luck next time");

System.out.println("Available tickets are:"+ stExObj1.tktsAvailable);

System.out.println("Available tickets are:"+ stExObj2.tktsAvailable);

if(stExObj2.bookTickets(100))

System.out.println("Tickets are booked!! Please pay the amount");

else

System.out.println("Tickets could not be booked. Better luck next time");

System.out.println("Available tickets are:"+ stExObj2.tktsAvailable);

System.out.println("Available tickets are:"+ stExObj3.tktsAvailable);

if(stExObj3.bookTickets(100))

System.out.println("Tickets are booked!! Please pay the amount");

else

System.out.println("Tickets could not be booked. Better luck next time");

System.out.println("Available tickets are:"+ stExObj3.tktsAvailable);

}

}

**\*\*ThisExample.java\*\***

package javaPrjChap1;

public class ThisExample {

int i,j;

public ThisExample() {

this(0,0);

//i=0;

//j=0;

}

public ThisExample(int val) {

this(val,val);

//i=j=val;

}

public ThisExample(int v1,int v2) {

i=v1;

j=v2;

}

public void showValues(){

this.showValues("both");

}

public void showValues(String s)

{

System.out.println("i is..."+i);

System.out.println("j is..."+j);

}

public static void main(String arg[])

{

ThisExample thsExObj = new ThisExample();

//ThisExample thsExObj1 = new ThisExample(10);

//ThisExample thsExObj2 = new ThisExample(12,13);

thsExObj.showValues();

//thsExObj1.showValues();

//thsExObj2.showValues();

}

}