A travel agency offers executive travel package for a month by giving 15% off on rate for male above 65 years of age and 20% off for female above 60 years of age and 10% off to couples if female is above 18 years and male is above 21years . Create a User defined Exception class so that if the age and gender of the person is not matching with the norms of the agency it throws an exception else it offers the concession to the customer.

Create a class *MyCalculator* which consists of a single method long power(int, int). This method takes two integers, n and  p, as parameters and finds  np. If either n or  p is negative, then the method must throw an exception which says "n and p should not be negative". Also, if both n and  p are zero, then the method must throw an exception which says " n and p should not be be zero"For example, *-4* and *-5* would result in  java.lang.Exception: n and p should not be negative. Write a Java program for the function power in class *MyCalculator* and return the appropriate result after the power operation or an appropriate exception as detailed above.

import java.util.\*;

class TravelException extends Exception

{

TravelException(String s)

{

super(s);

}

}

class HandlingExceptions

{

int ch;

int age;

String gender;

void n() throws TravelException

{

throw new TravelException ("the age and gender of the person is not matching with the norms of the agency to give concession");

};

public void m()

{

Scanner sc=new Scanner(System.in);

System.out.print("\n1.Solo travel\n2.Couples\n");

ch=sc.nextInt();

switch(ch)

{

case 1:

System.out.print("\nenter details of solo passanger\n");

sc.nextLine();

System.out.print("enter gender of passanger : ");

this.gender=sc.nextLine();

System.out.print("\nenter age of passanger :");

this.age=sc.nextInt();

if(this.gender.equals("male") && this.age>=65)

{

System.out.println("travel agency offers 15% off on travel");

}

else if(this.gender.equals("female") && this.age>=60)

{

System.out.println("travel agency offers 20% off on travel");

}

else

{

try

{

n();

}

catch(Exception e)

{

System.out.println(e);

}

}

break;

case 2:

System.out.println("enter details of Couples");

HandlingExceptions obm=new HandlingExceptions(),obf=new HandlingExceptions();

System.out.println("enter age of male passanger :");

obm.gender="male";

obm.age=sc.nextInt();

System.out.println("enter age of female passanger :");

obf.gender="female";

obf.age=sc.nextInt();

if(obf.age>=19 && obm.age>21)

{

System.out.println("travel agency offers 1o% off on travel");

}

else

{

try

{

n();

}

catch(Exception e)

{

System.out.println(e);

}

}

break;

}

}

public static void main(String args[])

{

HandlingExceptions ob =new HandlingExceptions();

ob.m();

}

}

import java.util.\*;

class MyCalculator

{

public long power(int n, int p)throws Exception

{

long pow;

if(n<0 || p<0)

{

try

{

throw new Exception("n and p should not be negative");

}

catch(Exception e)

{

throw e;

}

}

else if(n==0 || p==0)

{

try

{

throw new Exception("n and p should not be be zero");

}

catch(Exception e)

{

throw e;

}

}

else

{

return((long)Math.pow(n,p));

}

}

public static void main(String args[])

{

long temp;

int p,n;

Scanner sc=new Scanner(System.in);

System.out.println("enter value of n");

n=sc.nextInt();

System.out.println("enter value of p");

p=sc.nextInt();

MyCalculator obj =new MyCalculator();

try

{

temp=obj.power(n,p);

System.out.println(n+" to the power of "+ p + " = "+ temp);

}

catch(Exception e)

{

System.out.println(e);

}

}

}