/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 1\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Letter {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input a Letter");

char letter = sc.next().charAt(0);

int l = (int)(letter);

if(!((l>=65)&&(l<97)))

System.out.println("The letter is a small letter");

else

System.out.println("The letter is a capital letter");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 2\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Marks {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input mark 1");

double m1 = sc.nextDouble();

System.out.println("Input mark 2");

double m2 = sc.nextDouble();

System.out.println("Input mark 3");

double m3 = sc.nextDouble();

if((m1>=50)&&(m2>=50)&&(m3>=50))

System.out.println("Passed");

else

System.out.println("Failed");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 3\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Grades {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input a mark for a music theory exam");

double mark = sc.nextDouble();

if(mark<66)

System.out.println("Failed");

else if((mark>=66)&&(mark<=80))

System.out.println("Passed");

if((mark>=80)||(mark<90))

System.out.println("Merit");

else if(mark>=90)

System.out.println("Disctinction");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 4\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Parity {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input a whole number");

int num = sc.nextInt();

if((num%2)==0)

System.out.println("The number is even");

else

System.out.println("The number is odd");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 5\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Lock{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

int l1 = 27;

int l2 = 18;

int l3 = 54;

System.out.println("Turn the Dial to the first number(num1)");

int num1 = sc.nextInt();

System.out.println("Turn the Dial to the second number(num2)");

int num2 = sc.nextInt();

System.out.println("Turn the Dial to the third number(num3)");

int num3 = sc.nextInt();

if((num1==l1)&&(num2==l2)&&(num3==l3))

System.out.println("The lock opens !");

else

System.out.println("Failed to open lock !");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 6\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Largest{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input num1");

int num1 = sc.nextInt();

System.out.println("Input num2");

int num2 = sc.nextInt();

System.out.println("Input num3");

int num3 = sc.nextInt();

int max = 0;

if (num1>max)

max=num1;

if(num2>max)

max=num2;

if(num3>max)

max=num3;

System.out.println("The largest number was " + max);

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 7\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class LogIn{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input username ");

String username = sc.nextLine();

System.out.println("Input password ");

String password = sc.nextLine();

if((username.equals("atanti"))&&(password.equals("hfhQEYU88!")))

System.out.println("Welcome ");

else

System.out.println("Invalid Entry");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 8\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Quadratic{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input num1");

double num1 = sc.nextDouble();

System.out.println("Input num2");

double num2 = sc.nextDouble();

System.out.println("Input num3");

double num3 = sc.nextDouble();

double total1 =( (-num2)+Math.sqrt(Math.pow(num2,2)+(-4\*num1\*num3)))/(2\*num1);

double total2 = ((-num2)-Math.sqrt(Math.pow(num2,2)+(-4\*num1\*num3)))/(2\*num1);

if((total1!=0)&&(total2!=0))

System.out.println(" The equation has 2 roots");

else if((total1!=0)||(total2!=0))

System.out.println(" The equation has 1 root");

else

System.out.println("The program doesn't have any roots");

System.out.println("These are the roots " + total1 +" "+ total2);

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 9\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Letters {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input a Letter");

char letter = sc.next().charAt(0);

int ascii = (int)(letter);

char l = Character.toUpperCase(letter);

if((ascii>=65)&&(ascii<91)){

if((letter=='A')||(letter=='E')||(letter=='U')||(letter=='I')||(letter=='O')){

System.out.println(" It is a vowel");

}

else

System.out.println(" It is a consonant");

}

else

System.out.println(" Invalid entry");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 10\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class MarkGrade {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input 3 marks out of 100");

double mark1 = sc.nextDouble();

double mark2 = sc.nextDouble();

double mark3 = sc.nextDouble();

double average = (mark1+mark1+mark3)/3;

if((average>=0)&&(average<=49))

System.out.println("Grade F");

else if((average>=50)&&(average<=65))

System.out.println("Grade D");

else if((average>=66)&&(average<=79))

System.out.println("Grade C");

else if((average>=80)&&(average<=89))

System.out.println("Grade B");

else if((average>=90)&&(average<=100))

System.out.println("Grade A");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 11\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Generation {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input Year you were born");

int year = sc.nextInt();

if((year>=1925)&&(year<=1945))

System.out.println("You are from the Silent Generation");

else if((year>=1946)&&(year<=1964))

System.out.println("You are from the Baby Boom Generation");

else if((year>=1965)&&(year<=1980))

System.out.println("You are from the Generation X");

else if((year>=1981)&&(year<=1994))

System.out.println("You are from the Millenials Generation");

else if((year>=1995)&&(year<=2012))

System.out.println("You are from Gen Z");

else if((year>=2013)&&(year<=2025))

System.out.println("You are from Gen Alpha");

else

System.out.println("You are Old and Outdated");

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 12\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Cinema{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input Age");

int age = sc.nextInt();

int adults;

int child;

double total=0;

if(age>16){

System.out.println("Input quantity of tickets for adults");

adults = sc.nextInt();

System.out.println("Input quantity of tickets for children");

child = sc.nextInt();

if(child>2)

total=(5\*adults)+(3.5\*child);

else

total=(6\*adults)+(3.5\*child);

}

else

System.out.println("You are not 16 years old ");

System.out.println("You are rquired to pay "+ total + " euros" );

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 13\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class TaxRate{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input status married (M) and single (S) to find the tax to be paid");

char s = sc.next().charAt(0);

System.out.println("Input income");

int i = sc.nextInt();

double tax = 0;

if((s==('S'))||(s==('s'))){

System.out.println("You are " + s);

if((i>=0)&&(i<=8500))

tax=0;

else if((i>=8501)&&(i<=14500))

tax=i\*0.15;

else if((i>=14501)&&(i<=60000))

tax=i\*0.25;

else if(i>=60001)

tax=i\*0.35;

}

else if((s==('M'))||(s==('m'))){

System.out.println("You are " + s);

if((i>=0)&&(i<=11900))

tax=0;

else if((i>=1901)&&(i<=21200))

tax=i\*0.15;

else if((i>=21201)&&(i<60000))

tax=i\*0.25;

else if(i>=60001)

tax=i\*0.35;

}

else

System.out.println("Invalid ");

System.out.println("The tax to be paid is "+ tax + " euros" );

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 14\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Seasons{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input month number");

int month = sc.nextInt();

switch(month){

case 12:

case 1:

case 2:System.out.println(" The season is Winter");

break;

case 3:

case 4:

case 5:System.out.println(" The season is Spring");

break;

case 6:

case 7:

case 8:System.out.println(" The season is Summer");

break;

case 9:

case 10:

case 11:System.out.println(" The season is Autumn");

break;

default:System.out.println("Invalid");

}

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 15\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Conversion{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Choose between the following options:\n1. Pounds to grams\n2. Grams to pounds\n3.Quit");

int option = sc.nextInt();

double amount=0;

if(option!=3){

System.out.println("Input amount to convert");

amount = sc.nextDouble();

}

double ans = 0;

switch(option){

case 1: ans=amount\*453.59;

System.out.println("The answer of the following conversion is "+ans+" grams");

break;

case 2: ans=amount/453.59;

System.out.println("The answer of the following conversion is "+ans+" pounds");

break;

case 3:System.out.println("Goodbye");

break;

default:System.out.println("Invalid");

}

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 16\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Days{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input month number");

int month = sc.nextInt();

switch(month){

case 1:

case 3:

case 5:

case 7:

case 8:

case 10:

case 12:System.out.println(" The month you entered has 31 days");

break;

case 4:

case 6:

case 9:

case 11:System.out.println(" The month you entered has 30 days");

break;

case 2:System.out.println(" The month you entered has 28 and 1/4 days ");

break;

default:System.out.println("Invalid");

}

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 17\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Calculator{

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input the first number(num1)");

int num1 = sc.nextInt();

System.out.println("Input the second number(num2)");

int num2 = sc.nextInt();

int ans = 0;

System.out.println("Choose between the following options:\n1. Addition\n2. Subtraction\n3.Quit");

int option = sc.nextInt();

switch(option){

case 1: ans=num1+num2;

System.out.println("The answer of adding num1 and num2 is " + ans);

break;

case 2: if(num1>num2){

ans = num1-num2;

System.out.println("The answer of subtracting num2 from num1 is " + ans);

}

else if(num2>num1){

ans = num2-num1;

System.out.println("The answer of subtracting num1 from num2 is " + ans);

}

break;

case 3:System.out.println("Goodbye");

break;

default:System.out.println("Invalid");

}

}

}

---------------------------------------------------------------------------------------------------------

/\*Matthias Bartolo

\*Class Bc1B

\*Module8 Section c Q 18\*/

// Java program to read data of various types using Scanner class.

import java.util.\*;

public class Quiz {

public static void main (String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Input the answer to the following question :\nWhat is the name of the largest country in the world ?\na.China\nb.Australia\nc.Russia\nd.Canada");

char input = sc.next().charAt(0);

char ans = Character.toLowerCase(input);

switch(ans){

case 'a':

case 'b':

case 'd':System.out.println(" You are unfortunately incorrect");

break;

case 'c':System.out.println(" You are correct");

break;

default:System.out.println("Invalid");

}

}

}