Java Decision Making-If/Else

1. WAP to find the ASCII code for any character A-Z – 65 to 90 , a-z 97 to 122

2. WAP to check whether a number is even or odd.

import java.util.Scanner;

class Even

{

public static void main(String args[])

{

int num;

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

System.out.println("Enter the Number:");

Scanner s=new Scanner(System.in);

num=s.nextInt();

if(num%2==0)

{

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

System.out.println("Entered Number is Even");

}

else

{

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

System.out.println("Entered Number is Odd");

}

}

}

Output:--

.........................................................

Enter the Number:

45879

.........................................................

Entered Number is Odd

3. WAP to check whether a person is eligible for vote or not

import java.util.Scanner;

class Vote

{

public static void main(String args[])

{

int age;

System.out.println("Enter the age:");

Scanner s=new Scanner(System.in);

age=s.nextInt();

if(age>=18)

{

System.out.println("Eligible to vote:");

}

else

{

System.out.println("Not Eligible to vote:");

}

}

}

Output:--

Enter the age:

17

Not Eligible to vote

4. WAP to check whether a number is greater than 10 or not

import java.util.Scanner;

class Greater

{

public static void main(String args[])

{

int num;

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

System.out.println("Enter the Number:");

Scanner s=new Scanner(System.in);

num=s.nextInt();

if(num>=10)

{

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

System.out.println("Greater than 10");

}

else

{

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

System.out.println("Less than 10");

}

}

}

Output:--

.........................................................

Enter the Number:

56

.........................................................

Greater than 10

D:\Java>javac Greater.java

D:\Java>java Greater

.........................................................

Enter the Number:

8

.........................................................

Less than 10

5. WAP to find the greater of two numbers

import java.util.Scanner;

class Greater\_of\_2

{

public static void main(String args[])

{

int num1,num2;

System.out.println("Enter the Two Numbers:");

Scanner g=new Scanner(System.in);

num1=g.nextInt();

num2=g.nextInt();

if(num1>num2)

{

System.out.println("Number\_1 is Greater:");

}

else

{

System.out.println("Number\_2 is Greater:");

}

}

}

Output:---

Enter the Two Numbers:

89

486

Number\_2 is Greater:

…………………………………………………

D:\Java>javac Greater\_of\_2.java

D:\Java>java Greater\_of\_2

Enter the Two Numbers:

789

45

Number\_1 is Greater:

6. WAP to find the greater of three numbers

import java.util.Scanner;

class Greater\_of\_3

{

public static void main(String args[])

{

int num1,num2,num3;

System.out.println("Enter the First Number:");

Scanner g=new Scanner(System.in);

num1=g.nextInt();

System.out.println("<<<<<<<<<<<<<>>>>>>>>>>>>");

System.out.println("Enter the Second Number");

num2=g.nextInt();

System.out.println("<<<<<<<<<<<<<>>>>>>>>>>>>");

System.out.println("Enter the Third Number:");

num3=g.nextInt();

if(num1>num2)

{

System.out.println("Number\_1 is Greater:");

}

else if(num2>num3)

{

System.out.println("Number\_2 is Greater:");

}

else if(num3>num1)

{

System.out.println("Number\_3 is Greater:");

}

else

{

System.out.println("Numbers are Equal");

}

}

}

Output:---

Enter the First Number:

45

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Second Number

85

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Third Number:

456

Number\_3 is Greater:

………………………………………………………………….

Enter the First Number:

456

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Second Number

78

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Third Number:

95

Number\_1 is Greater:

…………………………………………………………………..

D:\Java>javac Greater\_of\_3.java

D:\Java>java Greater\_of\_3

Enter the First Number:

45

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Second Number

4569

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Third Number:

7

Number\_2 is Greater:

D:\Java>javac Greater\_of\_3.java

D:\Java>java Greater\_of\_3

Enter the First Number:

45

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Second Number

45

<<<<<<<<<<<<<>>>>>>>>>>>>

Enter the Third Number:

45

Numbers are Equal

7. WAP to check whether a no is +ve,-ve or zero

import java.util.Scanner;

class Zero

{

public static void main(String args[])

{

int num;

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

System.out.println("Enter the Number:");

Scanner S=new Scanner(System.in);

num=S.nextInt();

if(num==0)

{

System.out.println("Entered Number is 0 ");

}

else if(num>0)

{

System.out.println("Entered Number is Positive");

}

else if(num<0)

{

System.out.println("Entered number is Negative");

}

else

{

System.out.println("Not a Number");

}

}

}

Output:--

.......................................

Enter the Number:

89

Entered Number is Positive

.......................................

Enter the Number:

0

Entered Number is 0

.......................................

Enter the Number:

-89

Entered number is Negative

8. WAP to check the equality of two numbers and 9. WAP to check the inequality if two numbers.

import java.util.Scanner;

class Equal

{

public static void main(String[] args)

{

int num1,num2;

Scanner s = new Scanner(System.in);

System.out.print(".....................................\n");

System.out.print("Enter the first number:");

num1 = s.nextInt();

System.out.print("......................................\n");

System.out.print("Enter the second number:");

num2= s.nextInt();

if(num1==num2)

{

System.out.println("Num1 and Num2 are equal ");

}

else

{

System.out.println("Num1 and Num2 are not equal ");

}

}

}

Output:--

.....................................

Enter the first number:45

......................................

Enter the second number:56

Num1 and Num2 are not equal

.....................................

Enter the first number:44

......................................

Enter the second number:44

Num1 and Num2 are equal

10. WAP to check whether the entered character is alphabet or non alphabet

class Alphabet

{

public static void main(String[] args)

{

char ch='L';

if( (ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))

{

System.out.println("is an alphabet:"+ ch);

}

else

{

System.out.println("is not an alphabet:"+ch);

}}

}

Output:--

is not an alphabet:#

is an alphabet:L

11. WAP to check whether the entered character is uppercase or lower case

class Upper\_Lower

{

public static void main(String[] args)

{

char ch='m';

if(ch >= 'A' && ch <= 'Z')

{

System.out.println(".....................................\n");

System.out.println("is upper case:"+ ch);

}

else

{

System.out.println("is lower case:"+ch);

}}

}

Output:---

is upper case:L

is lower case:m

12. WAP to change the case of a character(from upper to lower , lower to upper)

13. WAP to swap two numbers

import java.util.Scanner;

class Swap

{

public static void main(String args[])

{

int a, b,temp;

Scanner scanner = new Scanner(System.in);

System.out.print(".................................................\n");

System.out.print("Enter the first number: ");

a = scanner.nextInt();

System.out.print(".................................................\n");

System.out.print("Enter the second number: ");

b = scanner.nextInt();

System.out.println("Before swapping:");

System.out.println("a = " +a +", b = " +b);

temp = a;

a = b;

b = temp;

System.out.print(".................................................\n");

System.out.println("After swapping:");

System.out.print("a = " +a +", b = " +b);

}

}

Output:---

.................................................

Enter the first number: 5

.................................................

Enter the second number: 65

Before swapping:

a = 5, b = 65

.................................................

After swapping:

a = 65, b = 5

14. WAP to Check Whether a Character is Vowel or Consonant

import java.util.Scanner;

class Vowel

{

public static void main(String[ ] arg)

{

int i=0;

char ch;

Scanner sc=new Scanner(System.in);

System.out.println("Enter a character : ");

ch=sc.next( ).charAt(0);

switch(ch)

{

case 'a' :

case 'e' :

case 'i' :

case 'o' :

case 'u' :

case 'A' :

case 'E' :

case 'I' :

case 'O' :

case 'U' :

i++;

}

if(i==1)

{

System.out.println("Entered character "+ch+" is Vowel");}

else if((ch>='a'&&ch<='z')||(ch>='A'&&ch<='Z'))

{

System.out.println("Entered character "+ch+" is Consonent");

}

else

{

System.out.println("Not an alphabet");

}

}}

Output:--

Enter a character :

I

Entered character I is Vowel

Enter a character :

o

Entered character o is Vowel

Enter a character :

l

Entered character l is Consonent

15. WAP to check leap year

import java.util.Scanner;

class Leap\_Year

{

public static void main(String[] args)

{

int year;

Scanner scan = new Scanner(System.in);

System.out.println("Enter any Year:");

year = scan.nextInt();

scan.close();

boolean isLeap = false;

if(year % 4 == 0)

{

if( year % 100 == 0)

{

if ( year % 400 == 0)

isLeap = true;

else

isLeap = false;

}

else

isLeap = true;

}

else {

isLeap = false;

}

if(isLeap==true)

System.out.println(" is a Leap Year." + year );

else

System.out.println(" is not a Leap Year." + year );

}

}

Output:---

Enter any Year:

1997

1997 is not a Leap Year.

Enter any Year:

1996

1996 is a Leap Year.

16. WAP to check whether the average of five no is greater than 10 or not

import java.util.Scanner;

class Five

{

public static void main(String[] args)

{

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

Scanner in = new Scanner(System.in);

System.out.println("First number: ");

int num1 = in.nextInt();

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

System.out.println("Second number: ");

int num2 = in.nextInt();

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

System.out.println("Third number: ");

int num3 = in.nextInt();

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

System.out.println("Fourth number: ");

int num4 = in.nextInt();

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

System.out.println("Fifth number: ");

int num5 = in.nextInt();

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

int Avg=(num1 + num2 + num3 + num4 + num5) / 5;

System.out.println("Average of five numbers is: " +Avg);

if( Avg>10)

{

System.out.println("Average value is Greater than 10 :"+Avg);

}

else

{

System.out.println("Average value is Less than 10 :"+Avg);

}

}

}

Output:---

.........................................

First number:

1

.........................................

Second number:

2

.........................................

Third number:

3

.........................................

Fourth number:

4

.........................................

Fifth number:

5

.........................................

Average of five numbers is: 3

Average value is Less than 10 :3

17. WAP to check whether the output of addition of two numbers is greater than 100 or not.

import java.util.Scanner;

class Two

{

public static void main(String[] args)

{

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

Scanner in = new Scanner(System.in);

System.out.println("First number: ");

int num1 = in.nextInt();

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

System.out.println("Second number: ");

int num2 = in.nextInt();

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

int sum=num1 + num2;

System.out.println("Sum of two numbers is: " +sum);

if( sum>100)

{

System.out.println("Sum is Greater than 100 :"+sum);

}

else

{

System.out.println("Sum is Less than 100 :"+sum);

}

}

}

Output:--

.........................................

First number:

456

.........................................

Second number:

236

.........................................

Sum of two numbers is: 692

Sum is Greater than 100 :692

18. WAP to Swap Numbers without using 3rd variable

import java.util.Scanner;

class Swap\_2

{

public static void main(String arg[])

{

int x,y;

System.out.println("........................................\n");

System.out.println("First Number is:");

Scanner s=new Scanner(System.in);

x=s.nextInt();

System.out.println("Second Number is:");

y=s.nextInt();

System.out.println("Before swapping:");

System.out.println("value of x:"+x );

System.out.println("value of x:"+y );

System.out.println("........................................\n");

System.out.println("After swapping");

x = x + y;

y = x - y;

x = x - y;

System.out.println("value of x:" + x);

System.out.println("value of y:" + y);

}

}

Output:---

........................................

First Number is:

5

Second Number is:

4

Before swapping:

value of x:5

value of x:4

........................................

After swapping

value of x:4

value of y:5

19. WAP to Find all Roots of a Quadratic equation

20. WAP to check whether num is divisible by 7 or not.

import java.util.Scanner;

class Divisible\_7

{

public static void main(String args[])

{

int num;

System.out.println("Enter the Number:");

Scanner s=new Scanner(System.in);

num=s.nextInt();

if(num%7==0)

{

System.out.println("................................\n");

System.out.println("Number is Divisible by 7");

}

else

{

System.out.println("................................\n");

System.out.println("Number is not Divisible by 7");

}

}

}

Output:---

Enter the Number:

99

................................

Number is not Divisible by 7

21. WAP to check num is divisible by 9 or not.

import java.util.Scanner;

class Divisible\_9

{

public static void main(String args[])

{

int num;

System.out.println("Enter the Number:");

Scanner s=new Scanner(System.in);

num=s.nextInt();

if(num%9==0)

{

System.out.println("................................\n");

System.out.println("Number is Divisible by 9");

}

else

{

System.out.println("................................\n");

System.out.println("Number is not Divisible by 9");

}

}

}

Output:---

Enter the Number:

199859

................................

Number is not Divisible by 9

22. WAP to perform addition and multiplication of 2 no and then find the Greater value.

import java.util.Scanner;

class Greaterthan

{

public static void main(String args[])

{

int num1,num2,sum,mul,Greater;

System.out.println("Enter the First Number:");

Scanner s=new Scanner(System.in);

num1=s.nextInt();

System.out.println("Enter the Second Number:");

num2=s.nextInt();

sum=num1+num2;

mul=num1\*num2;

System.out.println("Addition is:"+sum);

System.out.println("Multiplication is:"+mul);

if(mul > sum )

{

System.out.println("................................\n");

System.out.println("Multiplication of Two Numbers is Greater");

}

else

{

System.out.println("................................\n");

System.out.println("Addition of Two Numbers is Greater");

}

}

}

Output:---

Enter the First Number:

456

Enter the Second Number:

452

Addition is:908

Multiplication is:206112

................................

Multiplication of Two Numbers is Greater

23. WAP to calculate the least of 3 numbers.

class Smaller

{

public static void main(String[] args)

{

int a = 9;

int b =0;

int c = 3;

if(a<b)

{

System.out.println("A is Smaller value:");

}

else if(b<c)

{

System.out.println(" B is Smaller value:");

}

else if(c<a)

{

System.out.println("C is Smaller value:");

}

else

{

System.out.println(" All values are euqal:");

}

}

}

Output:--

B is Smaller value:

24. WAP to display the grades of the student based on the following criteria: a. a)>=90,then Grade A b.

b)>=80 and =60 and =45 and

Decision Making-Switch Case

25. WAP to check whether the entered character is vowel or consonant.

import java.util.Scanner;

class Consonant

{

public static void main(String args[])

{

char c;

System.out.print("Enter Character: ");

Scanner s=new Scanner(System.in);

c=s.nextLine().charAt(0);

switch(c)

{

case 'A':

case 'E':

case 'I':

case 'O':

case 'U':

System.out.println(" is a Vowel:"+c);

break;

default:

System.out.println("is a Consonant:"+c);

}

}

}

Output:--

Enter Character: A

is a Vowel:A

26. WAP to display the corresponding days of the week.

class Day

{

public static void main(String s[])

{

int day=4;

switch(day)

{

case 1:

System.out.println("Monday");

break;

case 2:

System.out.println("Tuesday");

break;

case 3:

System.out.println("Wednesday");

break;

case 4:

System.out.println("Thursday");

break;

case 5:

System.out.println("Friday");

break;

default:

System.out.println("Weekend");

break;

}

}

}

Output:--

Thursday

27. WAP to display the corresponding month of Year.

class Month

{

public static void main(String s[])

{

int Month=2;

switch(Month)

{

case 1:

System.out.println("January");

break;

case 2:

System.out.println("February");

break;

case 3:

System.out.println("March");

break;

case 4:

System.out.println("April");

break;

case 5:

System.out.println("May");

break;

default:

System.out.println("Remaining Months");

break;

}

}

}

Output:---

February

28. WAP to design calculator using switch case.

import java.util.Scanner;

class Calcu

{

public static void main(String[] args)

{

double a,b,result;

char operator;

System.out.print("Enter two numbers: ");

Scanner r = new Scanner(System.in);

a = r.nextDouble();

b= r.nextDouble();

System.out.print("Enter an operator (+, -, \*, /): ");

operator = r.next().charAt(0);

switch (operator) {

case '+':

result = a+ b;

break;

case '-':

result = a - b;

break;

case '\*':

result = a\* b;

break;

case '/':

result = a/ b;

break;

default:

System.out.printf("Error! operator is not correct");

return;

}

System.out.println(a + " " + operator + " " + b + " = " + result);

}

}

Output:--

Enter two numbers: 78

98

Enter an operator (+, -, \*, /): \*

78.0 \* 98.0 = 7644.0

29. WAP to calculate area of different polygons using switch case.