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Flow control Statements

**1 a) Write a program to check if a given integer number is Positive, Negative, or Zero .**

import java.util.\*; public class Main {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int num= sc.nextInt();

if(num>0){ System.out.println("postive");

}

else if(num==0){ System.out.println("Zero");

}

else{ System.out.println("Negative");

}

}

}

**1b) Given two non-negative int values, print true if they have the same last digit, such as with 27 and 57.**

import java.util.\*; public class Lastdigit {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int a= sc.nextInt();

int b= sc.nextInt();

if(a>0 && b>0){ System.out.println(a%10 == b%10);

}

}

}

1. **Write a program to check if a given integer number is odd or even.**

import java.util.\*; public class Main {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int a= sc.nextInt();

if(a%2==0){

System.out.println("Even");

}

else{ System.out.println("odd");

}

}

}

1. **Write a program to check if the program has received command line arguments or not.**

**If the program has not received arguments, then print "No Values", else print all the values in a single line separated by, (comma)**

**Example1) java Example O/P: No values**

**Example2) java Example Mumbai Bangalore O/P: Mumbai, Bangalore**

**[Hint: You can use length property of an array to check its length]**

public class Example{

public static void main(String[] args) { if (args.length == 0) {

System.out.println("No Values");

} else {

String str = args[0];

String[] chars = str.split("\\s+"); System.out.println(String.join(",", chars));

}

}

}

1. **Initialize two character variables in a program and display the characters in alphabetical order.**

**Example1) if the first character is 's' and second character is 'e' then the output should be e,s**

**Example2) if the first character is 'a' and second character is 'e', then the output should be a,e**

public class Main {

public static void main(String[] args) { char ch1='s' , ch2='e';

if (ch1 > ch2) { System.out.println(ch2+","+ch1);

}else{

System.out.println(ch1+","+ch2);

}

}

}

1. **Initialize a character variable in a program and**

**print 'Alphabhet' if the initialized value is an alphabhet, print 'Digit' if the initialized value is a number, and**

**print 'Special Character', if the initialized value is anything else.**

import java.util.\*; public class Main {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); char ch = sc.nextLine().charAt(0);

String str;

str=((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z'))?"Character": (ch >= '0' && ch <= '9')?"Digit":"Special Character"; System.out.println(str);

}

}

1. **Write a program to accept gender ("Male" or "Female") and age from command line arguments and print the percentage of interest based on the given conditions.**

**If the gender is 'Female' and age is between 1 and 58, the percentage of interest is 8.2%.**

**If the gender is 'Female' and age is between 59 and 100, the percentage of interest is 9.2%.**

**If the gender is 'Male' and age is between 1 and 58, the percentage of interest is 8.4%.**

**If the gender is 'Male' and age is between 59 and 100, the percentage of interest is 10.5%.**

import java.util.\*; public class Sample {

public static void main(String[] args) { String a= args[0];

int c= Integer.parseInt(args[1]);; if(a.equals("Female")&&( c>=1 && c<=58)){

System.out.println("The percentage of interest is, 8.2%");

}

else if(a.equals("Female") &&( c>=58 && c<=100)){

System.out.println("The percentage of interest is, 9.2%");

}

else if(a.equals("Male")&&( c>=1 && c<=58)){ System.out.println("The percentage of interest is, 8.4%");

}

else if(a.equals("Male")&&(c>=58 && c<=100)){ System.out.println("The percentage of interest is, 10.5%");

}

else{

}

}

}

1. **Initialize a character variable with an alphabhet in a program.**

**If the character value is in lowercase, the output should be displayed in uppercase in the following format.**

**Example1) i/p:a**

**o/p:a->A**

**If the character value is in uppercase, the output should be displayed in lowercase in the following format.**

**Example2) i/p:A**

**o/p:A->a**

public class Alpha {

public static void main(String[] args) { char ch='A'; if(Character.isUpperCase(ch))

System.out.println(Character.toLowerCase(ch)); else if(Character.isLowerCase(ch)) System.out.println(Character.toUpperCase(ch));

}

}

1. **Write a program to receive a color code from the user (an Alphabhet).**

**The program should then print the color name, based on the color code given. The following are the color codes and their corresponding color names.**

**R->Red, B->Blue, G->Green, -**

**>Orange, Y->Yellow, W->White.**

**If color code provided by the user is not valid then print "Invalid Code".**

public class Main {

public static void main(String[] args) { Scanner sc= new Scanner(System.in); char ch=sc.nextLine().charAt(0); String s="R,B,G,O,Y,W";

switch(ch){ case 'R':

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

case 'B': System.out.println("Blue"); break;

case 'G': System.out.println("Green"); break;

case 'O': System.out.println("Orange"); break;

case 'Y': System.out.println("Yellow"); break;

case 'W': System.out.println("White"); break;

default : System.out.println("Invaild Code");

}

}

}

1. **Write a program to receive a number and print the corresponding month name.**

**Example1) C:\>java Sample 12 O/P Expected: December Example2) C:\>java Sample**

**O/P Expected Please enter the month in numbers Example3) C:\>java Sample 15**

**O/P Expected Invalid month**

import java.util.\*; public class Main {

public static void main(String[] args) { Scanner sc= new Scanner(System.in); if (sc.hasNextInt()) {

int a=sc.nextInt();

switch(a){ 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;

case 6: System.out.println("June"); break;

case 7: System.out.println("July"); break;

case 8: System.out.println("August"); break;

case 9: System.out.println("September"); break;

case 10: System.out.println("October"); break;

case 11: System.out.println("November"); break;

case 12: System.out.println("December"); break;

default :

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

}

}

else{

System.out.println("Please enter the month in number");

}

}

}

1. **Write a program to print numbers from 1 to 10 in a single row with one tab space.**

public class Main {

public static void main(String[] args) { for(int i=1;i<=10;i++){ System.out.print(i + " ");

}

}

}

1. **Write a program to print even numbers between 23 and 57. Each number should be printed in a separate row.**

public class Main {

public static void main(String[] args) { for(int i=23;i<=57;i++){

if(i%2==0) System.out.println(i);

}

}

}

1. **Write a program to check if a given number is prime or not.**

import java.util.Scanner; public class PrimeCheck {

public static void main(String[] args) { Scanner sc = new Scanner(System.in);

int num = sc.nextInt(); boolean prime = true;

for (int i = 2; i < num; i++) { if (num % i == 0) {

prime = false; break;

}

}

if (num <= 1) prime = false;

if (prime)

System.out.println(num + " is a prime number."); else

System.out.println(num + " is not a prime number.");

}

}

1. **Write a program to print prime numbers between 10 and 99.**

public class PrimeCheck {

public static void main(String[] args) { for(int num=10;num<=99;num++){ boolean prime=true;

for(int i=2;i<num;i++){ if(num%i==0){ prime=false;

break;

}

}

if(prime) System.out.println(num);

}

}

}

1. **Write a program to print the sum of all the digits of a given number. Example1)**

**I/P:1234 O/P:10**

import java.util.\*;

public class PrimeCheck {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int num = sc.nextInt();

int sum=0;

for (; num>0; num/=10) { int digit=num%10; sum+=digit;

}

System.out.println(sum);

}

}

1. **Write a program to print \* in Floyds format (using for and while loop)**

**\***

**\* \***

**\* \* \***

**Example1) C:\>java Sample**

**O/P: Please enter an integer number Example2) C:\>java Sample 3**

**O/P:**

**\***

**\* \***

**\* \* \***

import java.util.\*;

public class Pattern {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); if(sc.hasNextInt()){

int num = sc.nextInt(); for(int i=0;i<num;i++){

for(int j=0;j<=i;j++){ System.out.print(" \* ");

}

System.out.println();

}

}else

System.out.println("please enter an integer number");

}

}

1. **Write a program to reverse a given number and print Example1) I/P: 1234**

**O/P:4321**

**Example2) I/P:1004 O/P:4001**

import java.util.\*;

public class PrimeCheck {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int num = sc.nextInt();

int rev=0; while(num>0){

int digit=num%10; rev=rev\*10+digit; num/=10;

}

System.out.println(rev);

}

}

1. **Write a Java program to find if the given number is palindrome or not Example1)C:\>java Sample 110011**

**O/P: 110011 is a palindrome Example2)C:\>java Sample 1234 O/P: 1234 is not a palindrome** import java.util.\*;

public class PrimeCheck {

public static void main(String[] args) { Scanner sc = new Scanner(System.in); int num = sc.nextInt();

int p=num; int rev=0;

while(num>0){

int digit=num%10; rev=rev\*10+digit; num/=10;

}

if(p==rev)

System.out.println(rev+" is a palindrome"); else

System.out.println(rev+" is not a palindrome");

}

}