**Shiva@9985538462**

**yannamsiva@gmail.com**

**Day 1:**

1. **Basic program to print a welcome message**

class HelloWorld{

public static void main(String[] args)

{

System.out.println("Welcome to JAVA");

}

}

1. **Program to add two numbers and display the result**

class AddTwoNumber

{

public static void main(String[] args)

{

int a = 10;

int b = 5;

int result = a+b;

System.out.println("Result:" +result);

}

}

1. **Program to swap two numbers**

class NumberReverse

{

public static void main(String[] args)

{

int a = 10;

int b = 5;

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

a = a-b;

b = a+b;

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

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

}

}

1. Welcome message to a person. Take person’s name through command line arguments

class WelcomeMessage

{

public static void main(String[] args)

{

String name = args[0];

System.out.println("Welcome to" + name);

}

}

1. Enter a string using command line arguments. Convert that string to integer. (Marks memo program)

class MarksMemo

{

public static void main(String[] args)

{

int sno = Integer.parseInt(args[0]);

String sname = args[1];

int s1 = Integer.parseInt(args[2]);

int s2 = Integer.parseInt(args[3]);

int s3 = Integer.parseInt(args[4]);

int s4 = Integer.parseInt(args[5]);

int s5 = Integer.parseInt(args[6]);

int total = s1+s2+s3+s4+s5;

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

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

System.out.println("Student No:"+sno);

System.out.println("Student Name:"+sname);

System.out.println("Total:"+total);

}

}

1. If –else Demo. Compare two variables a and b.

class IfElseDemo

{

public static void main(String[] args)

{

int a = 10;

int b = 5;

if(a > b)

{

System.out.println("a value is greater than b");

}

else

{

System.out.println("a value less than b");

}

}

}

1. If-else Demo. Take two inputs from command line arguments and compare.

public class IfElseDemo1 {

public static void main(String[] args) {

int a = Integer.parseInt(args[0]);

int b = Integer.parseInt(args[1]);

if(a > b){

System.out.println("a greater than b");

}

else{

System.out.println("b greater than a");

}

}

}

1. Switch demo

public class SwitchDemo {

public static void main(String[] args) {

int input = 2;

switch(input){

case 1:System.out.println("input value is 1");

break;

case 2: System.out.println("input value is 2");

break;

case 3:System.out.println("input value is 3");

break;

default: System.out.println("input value is not in between 1 to 3");

}

}

}

1. Switch demo using command line arguments

public class SwitchDemo {

public static void main(String[] args) {

int input = Integer.parseInt(args[0]);

switch(input){

case 1:System.out.println("input value is 1");

break;

case 2: System.out.println("input value is 2");

break;

case 3:System.out.println("input value is 3");

break;

default: System.out.println("input value is not in between 1 to 3");

}

}

}

1. Do-while demo

public class DoWhileDemo {

public static void main(String[] args) {

int i = 1;

do

{

System.out.println(i);

++i;

}while(i<=10);

}

}

1. For loop demo

public class ForDemo {

public static void main(String[] args) {

for(int i=1;i<=10;i++){

System.out.println(i);

}

}

}

1. Inner for loop demo // prints 1 to 3 tables

public class InnerForDemo {

public static void main(String[] args) {

for(int i=1;i<=3;++i)

{

for(int j=1;j<=10;++j){

System.out.println(i+"X"+j+"="+(i\*j));

}

}

}

}

1. \* pattern using inner for loop

// \* pattern -Inner For Loop

public class InnerForLoopPattern {

public static void main(String[] args) {

// TODO Auto-generated method stub

for(int i=0;i<=4;i++){

for(int k =0;k<=(i-1);k++)

{

System.out.print(" "+" ");

}

for(int j = 1;j<=(5-i);j++){

System.out.print("\*"+" ");

}

System.out.println("");

}

}

1. 1s and 0s pattern - Inner For loop

public static void main(String[] args) {

// TODO Auto-generated method stub

for (int i = 1; i <= 5; i++) {

for (int j = 1; j <= i; j++) {

if (i % 2 == 0) {

if (j % 2 == 0) {

System.out.print(1 + " ");

} else {

System.out.print(0 + " ");

}

} else {

if (j % 2 == 0) {

System.out.print(0 + " ");

} else {

System.out.print(1 + " ");

}

}

}

System.out.println("");

}

}

1. Compare 3 values using if else

public class IfElseDemo2 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int a = 30;

int b = 50;

int c = 20;

if((a > b) && (a>c)){

System.out.println("a is greater");

}

else if((b > c) && (b>a)){

System.out.println("b is greater");

}

else{

System.out.println("c is greater");

}

}

}

1. Dynamically enter char as input to switch case statement

public class SwitchDemo1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

String input = args[0];

switch(input.charAt(0))

{

case 'R' : System.out.println("Red");

break;

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

break;

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

break;

default : System.out.println("Please Enter valid char R Y G");

}

}

}

1. Print first 10 even numbers using while loop

public class WhileDemo1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int i = 1;

System.out.println("First 10 Even numbers:");

while(i<=10)

{

System.out.println((2\*i));

i++;

}

}

}

1. Enter a number and check if it is a prime number using if else

public class IfElseDemo3 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int a = Integer.parseInt(args[0]);

int flag = 0;

for(int i=2;i<a;i++){

if(a%i == 0)

{

flag = 1;

break;

}

}

if(flag == 0){

System.out.println("Given number is a prime");

}

else{

System.out.println("Given number is not prime");

}

}

}

1. Print first 10 odd numbers using do-while

public class DoWhileDemo1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int i = 0;

System.out.println("First 10 Odd numbers:");

do

{

System.out.println((2\*i)+1);

i++;

}while(i<=9);

}

}

1. Print Fibonacci series up to 20 using for loop

public class ForDemo1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int a = 0;

int b = 1;

for(int i=0;i<4;i++)

{

System.out.println(a);

System.out.println(b);

a = a+b;

b = a+b;

}

}

}

1. Pattern using inner for loop

public class InnerForDemo1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

for(int i=1;i<=5;i++){

for(int j=1;j<=i;j++){

System.out.print(j+" ");

}

System.out.println("");

}

}

}

**Day 2:**

1. Assignment operators demo
2. Arithmetic operators demo

**publicclass** ArithmeticOperatorDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int** i,j;

i=10;

j=5;

System.*out*.println("Add value :"+(i+j));

System.*out*.println("Sub Value :"+(i-j));

System.*out*.println("Mul value :"+(i\*j));

System.*out*.println("Div value :"+(i/j));

System.*out*.println("Rem value :"+(i%j));

}

}

1. Comparison operators demo

**publicclass** ComparisonOperatorDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int** i,j;

i = 10;

j = 5;

System.*out*.println("i>j :"+(i>j));

System.*out*.println("i<j :"+(i<j));

System.*out*.println("i==j :"+(i==j));

System.*out*.println("i<=j :"+(i<=j));

System.*out*.println("i>=j :"+(i>=j));

System.*out*.println("i!=j :"+(i!=j));

}

}

1. 1-D array demo
2. 2-D array demo

**publicclass** TwoDimensionalArrayDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[][] a = **newint**[2][2];

a[0][0] = 10;

a[0][1] = 20;

a[1][0] = 30;

a[1][1] = 40;

**for**(**int** i=0;i<=1;i++){

**for**(**int** j=0;j<=1;j++){

System.*out*.print(a[i][j]+" ");

}

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

}

}

}

1. 2-D array Diagonal sum demo

**publicclass** ArrayDiagonalSumDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[][] a = **newint**[3][3];

**int** temp = 0;

a[0][0] = 10;

a[0][1] = 100;

a[0][2] = 1000;

a[1][0] = 20;

a[1][1] = 200;

a[1][2] = 2000;

a[2][0] = 30;

a[2][1] = 300;

a[2][2] = 3000;

**for**(**int** i=0;i<=2;i++){

**for**(**int** j=i;j<=i;j++){

System.*out*.println(a[i][j]);

}

}

**for**(**int** i=0,j=0;i<=2;i++,j++){

System.*out*.println(a[i][j]);

temp = temp + a[i][j];

}

System.*out*.println("sum ="+temp);

}

}

1. 2-D diagonal sum

**publicclass** ArrayDiagonalSum1 {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[][] a = **newint**[3][3];

**int** temp = 0;

a[0][0] = 10;

a[0][1] = 100;

a[0][2] = 1000;

a[1][0] = 20;

a[1][1] = 200;

a[1][2] = 2000;

a[2][0] = 30;

a[2][1] = 300;

a[2][2] = 3000;

**for**(**int** j=0;j<=2;j++){

**for**(**int** i=(2-j);i<=(2-j);i++){

System.*out*.println(a[i][j]);

temp = temp + a[i][j];

}

}

System.*out*.println("sum ="+temp);

}

}

1. Array row sum

**publicclass** ArrayRowSumDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[][] a = **newint**[3][3];

**int** temp = 0;

a[0][0] = 10;

a[0][1] = 100;

a[0][2] = 1000;

a[1][0] = 20;

a[1][1] = 200;

a[1][2] = 2000;

a[2][0] = 30;

a[2][1] = 300;

a[2][2] = 3000;

**for**(**int** i=0;i<=2;i++){

**for**(**int** j=0;j<=2;j++){

System.*out*.println(a[i][j]);

temp = temp + a[i][j];

}

System.*out*.println("sum of "+i+" row ="+temp);

}

}

}

1. Packages and access specifiers demo

**package** p1;

**publicclass** A {

//instance variables with access specifiers

**publicint**i = 10;

**privateint**j = 20;

**protectedint**k = 30;

**int**l = 40; // default

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

A obj = **new** A();

System.*out*.println(obj.i);

System.*out*.println(obj.j);

System.*out*.println(obj.k);

System.*out*.println(obj.l);

}

}

**package** p1;

**publicclass** B {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

A obj = **new** A();

System.*out*.println(obj.i);

// System.out.println(obj.j); // Cannot access private variables of other class even if its within the same package

System.*out*.println(obj.k);

System.*out*.println(obj.l);

}

}

**package** p2;

**import** p1.A;

**publicclass** C {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

A obj = **new** A();

System.*out*.println(obj.i); // can access only public variables outside package

//System.out.println(obj.j);

//System.out.println(obj.k);

//System.out.println(obj.l);

}

}

1. Packages, access specifiers and inheritance

**package** p1;

**publicclass** A {

//instance variables with access specifiers

**publicint**i = 10;

**privateint**j = 20;

**protectedint**k = 30;

**int**l = 40; // default

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

A obj = **new** A();

System.*out*.println(obj.i);

System.*out*.println(obj.j);

System.*out*.println(obj.k);

System.*out*.println(obj.l);

}

}

**package** p1;

**publicclass** B1 **extends** A {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

B1 obj = **new** B1();

System.*out*.println(obj.i);

// System.out.println(obj.j); // Cannot access private variables of other class even if its within the same package

System.*out*.println(obj.k);

System.*out*.println(obj.l);

}

}

**package** p2;

**import** p1.A;

**publicclass** C1 **extends** A {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

C1 obj = **new** C1();

System.*out*.println(obj.i); // can access only public variables outside package

//System.out.println(obj.j);

System.*out*.println(obj.k);

//System.out.println(obj.l);

}

}

1. Static variable demo
2. Default values

**publicclass** DefaultValues {

**int**a;

**char**b;

**byte**c;

**float**d;

**boolean**e;

**double**f;

**short**g;

**long**h;

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

DefaultValues dv = **new** DefaultValues();

System.*out*.println(dv.a); // 0

System.*out*.println(dv.b); // Blank space

System.*out*.println(dv.c); // 0

System.*out*.println(dv.d); //0.0

System.*out*.println(dv.e); //false

System.*out*.println(dv.f); //0.0

System.*out*.println(dv.g); // 0

System.*out*.println(dv.h); //0

}

}

1. Sum of first 50 natural numbers

**publicclass** NaturalNumbersSum {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int** sum = 0;

**int** n = 0;

**while**(n<=50){

sum = sum +n;

n++;

}

System.*out*.println("sum ="+sum);

}

}

1. Factorial

**publicclass** Factorial {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int** n=Integer.*parseInt*(args[0]);

**int** factorial = 1;

**while**(n>0){

factorial = factorial\*n;

n--;

}

System.*out*.println("factorial = "+factorial);

}

}

1. Student Records

import java.util.Arrays;

import java.util.Scanner;

public class StudentRecordsMenu {

public static void main(String[] args) {

int choice;

String sname;

int sno;

int search = 0;

String saddr;

String temp;

String snameArr[] = new String[1];

int snoArr[] = new int[1];

String saddrArr[] = new String[1];

int count = 0;

do {

System.out

.println("Please choose from the options : 1. Add record 2. Search record 3. Delete record 4. Exit ");

Scanner sc = new Scanner(System.in);

choice = sc.nextInt();

switch (choice) {

case 1:

System.out.println("You chose to add record.Please proceed.");

System.out.println("Enter student name:");

Scanner sc1 = new Scanner(System.in);

sname = sc1.nextLine();

while (sname.length() == 0) {

System.out.println("Please enter valid student name:");

sname = sc1.nextLine();

}

snameArr[count] = sname;

System.out.println("Enter student number:");

Scanner sc2 = new Scanner(System.in);

temp = sc2.nextLine();

while (temp.length() == 0) {

System.out.println("Please enter valid student ID:");

temp = sc2.nextLine();

}

sno = Integer.parseInt(temp);

snoArr[count] = sno;

System.out.println("Enter student address:");

Scanner sc3 = new Scanner(System.in);

saddr = sc3.nextLine();

while (saddr.length() == 0) {

System.out.println("Please enter valid student address:");

saddr = sc3.nextLine();

}

saddrArr[count] = saddr;

count++;

snameArr = Arrays.copyOf(snameArr, (count + 1));

snoArr = Arrays.copyOf(snoArr, (count + 1));

saddrArr = Arrays.copyOf(saddrArr, (count + 1));

break;

case 2:

System.out.println("You chose to search record.Please proceed.");

System.out.println("Please enter student ID: ");

Scanner sc4 = new Scanner(System.in);

sno = sc4.nextInt();

for (int i = 0; i <= count; i++) {

if (sno == snoArr[i]) {

System.out.println("Found the record");

break;

} else {

search++;

}

}

System.out.println("Student Name: " + snameArr[search] +"\t"+ " Student ID: "

+ snoArr[search] +"\t"+ " Student Address: " + saddrArr[search]);

break;

case 3:

System.out.println("You chose to delete record.Please proceed");

System.out.println("Please enter student ID: ");

Scanner sc5 = new Scanner(System.in);

sno = sc5.nextInt();

for (int i = 0; i <= count; i++) {

if (sno == snoArr[i]) {

System.out.println("Found the record!");

System.out.println("Name: " + snameArr[search] + ", Student ID: "

+ snoArr[search] + ", Location: " + saddrArr[search]

+ " is being deleted.");

snoArr[i] = 0;

snameArr[i] = null;

saddrArr[i] = null;

break;

} else {

search++;

}

}

System.out.println("Selected record has been deleted.");

break;

case 4:

System.out.println("You chose to exit.");

break;

default:

System.out.println("Please choose from the given list.");

}

} while (choice != 4);

}

}

1. Buffer reader demo

**import** java.io.BufferedReader;

**import** java.io.IOException;

**import** java.io.InputStreamReader;

**publicclass** BufferReaderDemo {

**publicstaticvoid** main(String[] args) **throws** IOException {

**int** sno;

String sname;

**int** numRecords;

String addr;

**int** snoArr[];

String snameArr[];

String addrArr[];

String temp;

// **TODO** Auto-generated method stub

BufferedReader br = **new** BufferedReader(**new** InputStreamReader(System.*in*));

System.*out*.println("Please enter number of records:");

numRecords = Integer.*parseInt*(br.readLine());

snoArr = **newint**[numRecords];

snameArr = **new** String[numRecords];

addrArr = **new** String[numRecords];

**for** (**int** i = 0; i < numRecords; i++) {

System.*out*.println("Please enter student ID:");

temp = br.readLine();

**while** (temp.length() == 0) {

System.*out*.println("Please enter valid ID");

temp = br.readLine();

}

sno = Integer.*parseInt*(temp);

snoArr[i] = sno;

System.*out*.println("Please enter student name:");

sname = br.readLine();

**while** (sname.length() == 0) {

System.*out*.println("Please enter valid Name");

sname = br.readLine();

}

snameArr[i] = sname;

System.*out*.println("Please enter student Address:");

addr = br.readLine();

**while** (addr.length() == 0) {

System.*out*.println("Please enter valid Address");

addr = br.readLine();

}

addrArr[i] = addr;

}

System.*out*.println("sno" + "\t" + "sname" + "\t" + "addr");

**for** (**int** j = 0; j < numRecords; j++) {

System.*out*.println(snoArr[j] + "\t" + snameArr[j] + "\t"

+ addrArr[j]);

}

}

}

1. String demo (abc to cba)

**publicclass** StringDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

String s1 = "abc";

String s2 = "def";

System.*out*.println("Equals checking: " + s1.equals(s2));

System.*out*.println("Get the index character: " + s1.charAt(2));

System.*out*.println("Concatenation: " + s1.concat(s2));

System.*out*.println("ToUppercase: " + s1.toUpperCase());

System.*out*.println("To Lower case: " + s1.toLowerCase());

System.*out*.println("Replace with x: " + s1.replace('a', 'x'));

System.*out*.println("Length: " + s1.length());

}

}

1. String (abcd to cdba)

**import** java.util.Scanner;

**publicclass** StringDemo2 {

**publicstaticvoid** main(String[] args) {

System.*out*.println("Enter input string:");

Scanner sc = **new** Scanner(System.*in*);

String s1 = sc.nextLine();

**char**[] c1,c2;

**int** len = s1.length();

c1 = **newchar**[len/2];

c2 = **newchar**[len/2];

**for** (**int** i = 0; i < len/2; i++) {

c1[i] = s1.charAt(i);

}

**for**(**int** z=0,j=len/2;j<len;z++,j++){

c2[z] = s1.charAt(j);

}

String s3 = **new** String(c1);

String s2 = **new** String(c2);

System.*out*.println("Output is: "+s2.concat(s3));

}

}

1. String pattern

**import** java.util.Scanner;

**publicclass** StringDemo3 {

**publicstaticvoid** main(String[] args) {

System.*out*.println("Input required string:");

Scanner sc = **new** Scanner(System.*in*);

String s1 = sc.nextLine();

**char**[] s2;

**int** len = s1.length();

s2 = **newchar**[len];

**for** (**int** i = 0; i < len; i++) {

{

**for** (**int** j = 0; j <= i; j++) {

s2[j] = s1.charAt(j);

System.*out*.print(s2[j]+" ");

}

}

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

}

//for(int i=1;i<=len;i++){

// System.out.println(s1.substring(0, i));

//}

}

}

1. String demo

**publicclass** StringDemo {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

String s1 = "abc";

String s2 = "def";

System.*out*.println("Equals checking: " + s1.equals(s2));

System.*out*.println("Get the index character: " + s1.charAt(2));

System.*out*.println("Concatenation: " + s1.concat(s2));

System.*out*.println("ToUppercase: " + s1.toUpperCase());

System.*out*.println("To Lower case: " + s1.toLowerCase());

System.*out*.println("Replace with x: " + s1.replace('a', 'x'));

System.*out*.println("Length: " + s1.length());

}

}

1. Method demo

**publicclass** MethodDemo1 {

**publicvoid** display() // void : because this methosdoesnt return any value

{

System.*out*.println("From display");

}

**publicint** add(**int** i, **int** j) // return int type value

{

**return** i + j;

}

**publicstaticvoid** main(String[] args) {

MethodDemo1 md = **new** MethodDemo1();

md.display();

System.*out*.println(md.add(2,3));

}

}

1. Arithmetic operations using methods

**publicclass** Calculate {

**publicint** add(**int** i, **int** j) {

**return** i + j;

}

**publicint** sub(**int** i, **int** j) {

**return** i - j;

}

**publicint** mul(**int** i, **int** j) {

**return** i \* j;

}

**publicfloat** div(**float** i, **float** j) {

**return** i / j;

}

}

**import** java.util.Scanner;

**publicclass** MethodDemo2 {

**publicstaticvoid** main(String[] args) {

// **TODO** Auto-generated method stub

**int** choice;

**int** i = 0;

**int** j = 0;

String exit = **null**;

Calculate c = **new** Calculate();

**do** {

System.*out*

.println("Calculation Menu: 1. Addition 2. Subtraction 3. Multiplication 4. Division 5. Exit");

System.*out*.println("Enter you choice:");

Scanner sc = **new** Scanner(System.*in*);

choice = sc.nextInt();

**switch** (choice) {

**case** 1:

System.*out*.println("Enter i value:");

i = sc.nextInt();

System.*out*.println("Enter j value:");

j = sc.nextInt();

System.*out*.println("Addition result = " + c.add(i, j));

**break**;

**case** 2:

System.*out*.println("Enter i value:");

i = sc.nextInt();

System.*out*.println("Enter j value:");

j = sc.nextInt();

System.*out*.println("Subtraction result = " + c.sub(i, j));

**break**;

**case** 3:

System.*out*.println("Enter i value:");

i = sc.nextInt();

System.*out*.println("Enter j value:");

j = sc.nextInt();

System.*out*.println("Multiplication result = " + c.mul(i, j));

**break**;

**case** 4:

System.*out*.println("Enter i value:");

i = sc.nextInt();

System.*out*.println("Enter j value:");

j = sc.nextInt();

System.*out*.println("Division value = " + c.div(i, j));

**break**;

**case** 5:

System.*out*.println("Are you sure that you want to exit?(y/n):");

Scanner sc1 = **new** Scanner(System.*in*);

exit = sc1.nextLine();

**if**(exit.charAt(0) == 'y'){

System.*out*.println("Exit from the menu");

}

**break**;

**default**:

System.*out*.println("Please chose from the given menu");

}

} **while** (choice != 5 || exit.charAt(0)!= 'y');

}

}

1. Employee records program using methods

import java.util.Arrays;

import java.util.Scanner;

public class EmployeeMethods {

String sname;

int sno;

int search = 0;

String saddr;

String temp;

String snameArr[] = new String[1];

int snoArr[] = new int[1];

String saddrArr[] = new String[1];

int count = 0;

public void addRecord() {

System.out.println("Enter Employee name:");

Scanner sc1 = new Scanner(System.in);

sname = sc1.nextLine();

while (sname.length() == 0) {

System.out.println("Please enter valid employee name:");

sname = sc1.nextLine();

}

snameArr[count] = sname;

System.out.println("Enter employee number:");

Scanner sc2 = new Scanner(System.in);

temp = sc2.nextLine();

while (temp.length() == 0) {

System.out.println("Please enter valid employee ID:");

temp = sc2.nextLine();

}

sno = Integer.parseInt(temp);

snoArr[count] = sno;

System.out.println("Enter employee address:");

Scanner sc3 = new Scanner(System.in);

saddr = sc3.nextLine();

while (saddr.length() == 0) {

System.out.println("Please enter valid employee address:");

saddr = sc3.nextLine();

}

saddrArr[count] = saddr;

count++;

snameArr = Arrays.copyOf(snameArr, (count + 1));

snoArr = Arrays.copyOf(snoArr, (count + 1));

saddrArr = Arrays.copyOf(saddrArr, (count + 1));

}

public void searchRecord() {

System.out.println("Please enter employee ID: ");

Scanner sc4 = new Scanner(System.in);

sno = sc4.nextInt();

for (int i = 0; i <= count; i++) {

if (sno == snoArr[i]) {

System.out.println("Found the record");

break;

} else {

search++;

}

}

System.out.println("Employee Name: " + snameArr[search] + "\t"

+ " Employee ID: " + snoArr[search] + "\t"

+ " Employee Address: " + saddrArr[search]);

}

public void deleteRecord() {

System.out.println("Please enter Employee ID: ");

Scanner sc5 = new Scanner(System.in);

sno = sc5.nextInt();

for (int i = 0; i <= count; i++) {

if (sno == snoArr[i]) {

System.out.println("Found the record!");

System.out.println("Employee Name: " + snameArr[search]

+ ", Employee ID: " + snoArr[search] + ", Location: "

+ saddrArr[search] + " is being deleted.");

snoArr[i] = 0;

snameArr[i] = null;

saddrArr[i] = null;

break;

} else {

search++;

}

}

System.out.println("Selected record has been deleted.");

}

public static void main(String[] args) {

// TODO Auto-generated method stub

}

}

**publicclass** EmployeeRecord {

**publicstaticvoid** main(String[] args) {

**int** choice;

EmployeeMethods em = **new** EmployeeMethods();

**do** {

System.*out*

.println("Please choose from the options : 1. Add Employee 2. Search Employee 3. Delete Employee 4. Exit ");

Scanner sc = **new** Scanner(System.*in*);

choice = sc.nextInt();

**switch** (choice) {

**case** 1:

System.*out*.println("You chose to add record.Please proceed.");

em.addRecord();

**break**;

**case** 2:

System.*out*.println("You chose to search record.Please proceed.");

em.searchRecord();

**break**;

**case** 3:

System.*out*.println("You chose to delete record.Please proceed");

em.deleteRecord();

**break**;

**case** 4:

System.*out*.println("You chose to exit.");

**break**;

**default**:

System.*out*.println("Please choose from the given list.");

}

} **while** (choice != 4);

}

}

1. Lift program

**import** java.util.Scanner;

**publicclass** LiftClass {

**publicstaticvoid** main(String[] args) {

System.*out*.println("Please enter number of persons in the lift:");

Scanner sc = **new** Scanner(System.*in*);

**int** num = sc.nextInt();

**int** floor[] = **newint**[num];

**if** (num > 8) {

System.*out*

.println("Sorry! Number of persons exceeded 8. Lift cannot move.");

} **else** {

**for** (**int** i = 0; i < num; i++) {

System.*out*.println("Please provide the floor number of person "+i);

floor[i] = sc.nextInt();

}

System.*out*

.println("Thank you for providing the floor numbers.Lift is moving.");

**for** (**int** j = 0; j < 11; j++) // floor

{

**for** (**int** k = 0; k < floor.length; k++)// to compare with user

// input floor number

{

**if** (j == floor[k]) {

System.*out*.println("Hello person " + k

+ ", your floor "+j+" has arrived.");

}

}

}

}

}

}

1. Menu card program

**import** java.util.Scanner;

**import** java.util.Arrays;

**publicclass** MenuCard {

**staticint***index* = 1;

**static int**[] *pricelist* = **newint**[*index*];

**staticint**[] *submenu1* = { 100, 200, 300 };

**staticint**[] *submenu2* = { 50, 150, 250 };

**staticint**[] *submenu3* = { 200, 300, 400 };

**publicstaticvoid** main(String[] args) {

**int** sum = 0;

**int** sel2 = 0;

**int** end = 0;

**do** {

System.*out*.println("Menu: 1.Pizza, 2.Coke, 3.Dessert");

Scanner scan = **new** Scanner(System.*in*);

**int** selection1 = scan.nextInt();

**switch** (selection1) {

**case** 1:

System.*out*.println("Sub Menu for Pizza: 1.farmhouse 2.mexican");

Scanner scan1 = **new** Scanner(System.*in*);

sel2 = scan1.nextInt();

*pricelist*[*index* - 1] = *submenu1*[sel2 - 1];

*index* = *index* + 1;

*pricelist* = Arrays.*copyOf*(*pricelist*,*index*);

**break**;

**case** 2:

System.*out*

.println("Sub Menu for Coke: 1. cocacola 2.pepsi 3. thumsup");

Scanner scan3 = **new** Scanner(System.*in*);

sel2 = scan3.nextInt();

*pricelist*[*index* - 1] = *submenu2*[sel2 - 1];

*index* = *index* + 1;

*pricelist* = Arrays.*copyOf*(*pricelist*,*index*);

**break**;

**case** 3:

System.*out*

.println("Sub Menu for Dessert : 1. Vanilla 2.Chocochip");

Scanner scan4 = **new** Scanner(System.*in*);

sel2 = scan4.nextInt();

*pricelist*[*index* - 1] = *submenu3*[sel2 - 1];

*index* = *index* + 1;

*pricelist* = Arrays.*copyOf*(*pricelist*,*index*);

**break**;

**default**:

System.*out*.println("please choose from the given menu");

}

System.*out*

.println("Enter 1 to end the order or 0 to continue the order");

Scanner scan2 = **new** Scanner(System.*in*);

end = scan2.nextInt();

} **while** (end == 0);

**for** (**int** i : *pricelist*) {

sum = sum + i;

}

System.*out*.println("Final bill amount is :" + sum);

System.*out*.println("Please pay the bill by cash :-) Thank You.");

}

}

1. Online test program

**import** java.util.Scanner;

**publicclass** OnlineTest {

**publicstaticvoid** main(String[] args) {

String exit = **null**;

**int** choice = 0;

**int** marks = 0;

String answer = **null**;

System.*out*.println("Welcome to JAVA online MCQ test!");

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

System.*out*

.println("Please choose any:\n 1. Basic Level \n 2. High Level \n 3. Expert Level ");

Scanner sc = **new** Scanner(System.*in*);

choice = sc.nextInt();

**switch** (choice) {

**case** 1:

System.*out*

.println("You chose to write basic level test.Please proceed");

String[] basic = { "1. Java source code is compiled into",

"2. Which of the tool is used to compile Java code?" };

String[] optionA = { "A .exe", "A java" };

String[] optionB = { "B Source code", "B javac" };

String[] optionC = { "C .obj", "C jar" };

String[] optionD = { "D byte code", "D javadoc" };

**char**[] expAnswer = { 'D', 'B' };

**for** (**int** i = 0; i < 2; i++) {

System.*out*.println("Question" + basic[i]);

System.*out*.println(optionA[i] + "\t\t" + optionB[i]);

System.*out*.println(optionC[i] + "\t\t" + optionD[i]);

System.*out*.println("Enter you answer(A/B/C/D):");

Scanner sc2 = **new** Scanner(System.*in*);

answer = sc2.nextLine();

**if** (answer.charAt(0) == expAnswer[i]) {

marks++;

}

}

System.*out*.println("Your marks in Basic level JAVA MCQ test:"

+ marks + "/2");

**break**;

**case** 2:

System.*out*

.println("You chose to write high level test.Please proceed");

String[] high = {

"1. Which of the following is not a keyword in JAVA?",

"2. Which of the following is not a keyword in JAVA" };

String[] highOptionA = { "A abstract", "A strictfp" };

String[] highOptionB = { "B assert", "B instanceof" };

String[] highOptionC = { "C boolean", "C transient" };

String[] highOptionD = { "D finalize", "D emun" };

**char**[] expAnswerHigh = { 'D', 'D' };

**for** (**int** i = 0; i < 2; i++) {

System.*out*.println("Question" + high[i]);

System.*out*.println(highOptionA[i] + "\t\t" + highOptionB[i]);

System.*out*.println(highOptionC[i] + "\t\t" + highOptionD[i]);

System.*out*.println("Enter you answer(A/B/C/D):");

Scanner sc2 = **new** Scanner(System.*in*);

answer = sc2.nextLine();

**if** (answer.charAt(0) == expAnswerHigh[i]) {

marks++;

}

}

System.*out*.println("Your marks in High level JAVA MCQ test:"

+ marks + "/2");

**break**;

**case** 3:

System.*out*

.println("You chose to write expert level test. Please proceed");

String[] expert = {

"1.Following example of nested comments is allowed in JAVA:\n // /\* Nesting Of Comment \*/" };

String[] expertOptionA = { "A False" };

String[] expertOptionB = { "B True" };

String[] expertOptionC = { ""};

String[] expertOptionD = { ""};

**char**[] expAnswerExpert = { 'B'};

**for** (**int** i = 0; i < 1; i++) {

System.*out*.println("Question" + expert[i]);

System.*out*.println(expertOptionA[i] + "\t\t" + expertOptionB[i]);

System.*out*.println(expertOptionC[i] + "\t\t" + expertOptionD[i]);

System.*out*.println("Enter you answer(A/B/C/D):");

Scanner sc2 = **new** Scanner(System.*in*);

answer = sc2.nextLine();

**if** (answer.charAt(0) == expAnswerExpert[i]) {

marks++;

}

}

System.*out*.println("Your marks in Expert level JAVA MCQ test:"

+ marks + "/1");

**break**;

**default**:

System.*out*.println("Please choose from the given list");

}

}

}

1. Game to enter same number as displayed on screen

**import** java.util.Scanner;

**publicclass** GameSameNumber {

**publicstaticvoid** main(String[] args) {

String input = **null**;

**int** val;

**int** inputInt;

**int** score = 0;

**int** count = 0;

System.*out*.println("Welcome to the game developed using JAVA!");

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

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

System.*out*.println("You gain when you enter the same number as displayed on the screen.");

System.*out*.println("When you want to exit, press q");

**do**{

val = (**int**)(Math.*random*()\*10);

System.*out*.println("Enter "+val+":");

Scanner sc = **new** Scanner(System.*in*);

input = sc.nextLine();

**if**(input.charAt(0) != 'q'){

inputInt = Integer.*parseInt*(input);

count++;

**if**(inputInt == val){

score++;

}

}

}**while**(input.charAt(0) != 'q');

System.*out*.println("Well done. Your score is:"+score+"/"+count);

}

}

**Assignment-2 solutions:**

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

1. //Assignment Question 1 & 2 : solution

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

import java.util.Scanner;

public class Assignment1 {

public static void main(String[] args) {

double bonus;

System.out.println("Enter employee salary:");

Scanner scan = new Scanner(System.in);

int salary = scan.nextInt();

System.out.println("Enter number of years");

Scanner scan1 = new Scanner(System.in);

int years = scan1.nextInt();

if(years < 5){

bonus = 0.01 \* salary ;

}

else{

bonus = 0.02 \* salary;

}

System.out.println("Congratulations! Your bonus is $"+bonus+".");

}

}

Output:

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

Enter employee salary:

40000

Enter number of years

5

Congratulations! Your bonus is $800.0.

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

1. //Assignment Question 3 & 4:solution

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

import java.util.Scanner;

public class Assignment3 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int stamps;

System.out.println("Enter the number of papers in envelope");

Scanner scan = new Scanner(System.in);

int numEnv = scan.nextInt();

stamps = (numEnv / 5);

int rem = numEnv % 5;

if ((rem > 0) && (rem < 5)) {

stamps++;

}

System.out.println("Number of stamps required :" + stamps);

if (stamps > 3) {

System.out.println("Stamps exceeded 3, not posting the envelope! ");

}

}

}

Output:

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

Enter the number of papers in envelope

11

Number of stamps required :3

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

1. //Assignment Question 5 : Solution

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

import java.util.Scanner;

public class Assignment5 {

public static void main(String[] args) {

// TODO Auto-generated method stub

System.out.println("Is the organism has cell nucleus ? (y/n)");

Scanner scan = new Scanner(System.in);

String x = scan.nextLine();

char cellNucleus = x.charAt(0);

if (cellNucleus != 'y') {

System.out.println("Monera kingdom - Commonly known as bacteria");

} else {

System.out.println("Is the organism single celled ? (y/n)");

x = scan.nextLine();

char singleCelled = x.charAt(0);

if (singleCelled == 'y') {

System.out.println("Protoctista kingdom - Commonly known as molds and algae");

} else {

System.out.println("Is the organism Photosynthetic ? (y/n)");

x = scan.nextLine();

char photoSynthetic = x.charAt(0);

if (photoSynthetic == 'y') {

System.out.println("Photosyntetic kingdom - Commonly known as plants");

}

else{

System.out.println("Does the organism has a nervous system ? (y/n)");

x= scan.nextLine();

char nervousSystem = x.charAt(0);

if(nervousSystem == 'y'){

System.out.println("Animalia kingdom - Commonly known as Animals");

}

else{

System.out.println("Fungi kingdom - Commonly known as Fungus");

}

}

}

}

}

}

Output :

Is the organism has cell nucleus ? (y/n)

y

Is the organism single celled ? (y/n)

n

Is the organism Photosynthetic ? (y/n)

n

Does the organism has a nervous system ? (y/n)

n

Fungi kingdom - Commonly known as Fungus

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

1. //Assignment Question 6 & 7:solution

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

import java.util.Scanner;

public class Assignment6 {

public static void main(String[] args) {

System.out.println("Please choose the material : air,polystyrene,water,iron");

Scanner scan = new Scanner(System.in);

String material = scan.nextLine();

double velocity;

int temp;

switch (material.charAt(0)) {

case 'i':

System.out.println("Iron material is selected");

velocity = 5950;

System.out.println("Iron velocity is " + velocity + "m/sec");

break;

case 'p':

System.out.println("Polystyrene material is selected");

velocity = 2350;

System.out.println("Polystyrene velocity is " + velocity + "m/sec");

break;

case 'w':

System.out.println("water material is selected");

velocity = 1531;

System.out.println("water velocity is " + velocity + "m/sec");

break;

case 'a':

System.out.println("air material is selected");

System.out.println("Please enter temperature in degree celsius");

Scanner scan1 = new Scanner(System.in);

temp = scan1.nextInt();

velocity = 331.5 + (0.6 \* temp);

System.out.println("air velocity is " + velocity + "m/sec");

break;

default:

System.out.println("Please choose from the given list");

}

}

}

Output:

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

Please choose the material : air,polystyrene,water,iron

air

air material is selected

Please enter temperature in degree celsius

30

air velocity is 349.5m/sec

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

1. //Assignment Question 8 & 9 : solution

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

import java.util.Scanner;

public class Assignment8 {

public static void main(String[] args) {

int returnPer;

String market = null;

int prob = 0;

System.out.println("Please enter return percentage:");

Scanner sc = new Scanner(System.in);

returnPer = sc.nextInt();

if (returnPer < -10) {

market = "bear";

prob = 10;

System.out.println("The rate of return is indicative of " + market

+ " market(which occurs " + prob + "%" + " of the time).");

} else if (returnPer < 10 && returnPer > -10) {

market = "stagnant";

prob = 30;

System.out.println("The rate of return is indicative of " + market

+ " market(which occurs " + prob + "%" + " of the time).");

} else if (returnPer > 10 && returnPer < 30) {

market = "bull";

prob = 43;

System.out.println("The rate of return is indicative of " + market

+ " market(which occurs " + prob + "%" + " of the time).");

} else if (returnPer > 30) {

market = "boom";

prob = 17;

System.out.println("The rate of return is indicative of " + market

+ " market(which occurs " + prob + "%" + " of the time).");

} else {

System.out.println("Given return percentage is not in the list");

}

}

}

Output:

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

Please enter return percentage:

-5

The rate of return is indicative of stagnant market(which occurs 30% of the time).

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

1. //Assignment Question 10:solution

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

public class Assignment10 {

public static void main(String[] args) {

int bal = 10000;

int i = 0;

System.out.println("Starting Balance is :" + bal);

do {

bal = bal \* 2;

i = i + 1;

} while (bal <= 100000);

System.out.println("It took " + i

+ " years for the balance to become 100000");

do {

bal = bal \* 2;

i = i + 1;

} while (bal <= 1000000);

System.out.println("It took " + i

+ " years for the balance to become 1000000");

}

}

Output:

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

Starting Balance is :10000

It took 4 years for the balance to become 100000

It took 7 years for the balance to become 1000000

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

1. //Assignment Question 11 & 12:Solution

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

import java.util.Scanner;

import java.util.Arrays;

public class Assignment11 {

public static void main(String[] args) {

int[] miles = new int[1];

int[] gallons = new int[1];

int indexm = 1;

int indexg = 1;

float milessum = 0;

float gallonssum = 0;

float overallMPG;

char cont = 'y';

char okay = 'y';

System.out.println("Do you want to calculate miles per gallons(y/n)");

Scanner scan = new Scanner(System.in);

String okay1 = scan.nextLine();

okay = okay1.charAt(0);

if (okay == 'y') {

do {

System.out.println("Enter number of miles:");

miles[indexm - 1] = scan.nextInt();

indexm++;

miles = Arrays.copyOf(miles, indexm);

System.out.println("Enter number of gallons");

gallons[indexg - 1] = scan.nextInt();

indexg++;

gallons = Arrays.copyOf(gallons, indexg);

System.out.println("Do you wish to continue? (y/n)");

Scanner scan1 = new Scanner(System.in);

okay1 = scan1.nextLine();

cont = okay1.charAt(0);

} while (cont == 'y');

for (int i : miles) {

milessum = milessum + i;

}

System.out.println("total number of miles :" + milessum);

for (int j : gallons) {

gallonssum = gallonssum + j;

}

System.out.println("total number of gallons :" + gallonssum);

overallMPG = milessum / gallonssum;

System.out.println("Overall MPG:" + overallMPG);

}

}

}

Output:

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

Do you want to calculate miles per gallons(y/n)

y

Enter number of miles:

40

Enter number of gallons

2

Do you wish to continue? (y/n)

y

Enter number of miles:

30

Enter number of gallons

2

Do you wish to continue? (y/n)

n

total number of miles :70.0

total number of gallons :4.0

Overall MPG:17.5

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

1. //Assignment Question 13 : Solution

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

import java.util.Scanner;

import java.util.Arrays;

public class Assignment13 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int[] miles = new int[1];

int[] gallons = new int[1];

int indexm = 1;

int indexg = 1;

int milessum = 0;

int gallonssum = 0;

double overallMPG;

int milestemp = 0;

int end = 0;

do {

System.out.println("Enter number of miles(-999 to quit):");

Scanner scan = new Scanner(System.in);

milestemp = scan.nextInt();

if(milestemp != -999){

miles[indexm - 1] = milestemp;

indexm++;

miles = Arrays.copyOf(miles, indexm);

System.out.println("Enter number of gallons");

gallons[indexg - 1] = scan.nextInt();

indexg++;

gallons = Arrays.copyOf(gallons, indexg);

}

else{

end = 1;

}

} while (end != 1);

for (int i : miles) {

milessum = milessum + i;

}

System.out.println("total number of miles :" + milessum);

for (int j : gallons) {

gallonssum = gallonssum + j;

}

System.out.println("total number of gallons :" + gallonssum);

if (gallonssum == 0) {

System.out

.println("Sorry! gallons sum is zero. Cannout compute overall MPG");

} else {

System.out.println("Overall MPG:" + (milessum / gallonssum));

}

}

}

Output:

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

Enter number of miles(-999 to quit):

40

Enter number of gallons

2

Enter number of miles(-999 to quit):

60

Enter number of gallons

0

Enter number of miles(-999 to quit):

-999

total number of miles :100

total number of gallons :2

Overall MPG:50

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

1. //Assigment Question 14 : solution

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

import java.util.Arrays;

import java.util.Scanner;

public class Assignment14 {

public static void main(String[] args) {

int[] miles = new int[1];

int[] gallons = new int[1];

int indexm = 1;

int indexg = 1;

float milessum = 0;

float gallonssum = 0;

float overallMPG;

int cont = 0;

char okay = 'y';

do {

System.out.println("Enter number of miles:");

Scanner scan = new Scanner(System.in);

miles[indexm - 1] = scan.nextInt();

indexm++;

miles = Arrays.copyOf(miles, indexm);

System.out.println("Enter number of gallons");

gallons[indexg - 1] = scan.nextInt();

indexg++;

gallons = Arrays.copyOf(gallons, indexg);

cont++;

} while (cont < 3);

for (int i : miles) {

milessum = milessum + i;

}

System.out.println("total number of miles :" + milessum);

for (int j : gallons) {

gallonssum = gallonssum + j;

}

System.out.println("total number of gallons :" + gallonssum);

if (gallonssum != 0) {

overallMPG = milessum / gallonssum;

System.out.println("Overall MPG:" + overallMPG);

} else {

System.out.println("Sorry! gallons sum is zero. Cannout compute overall MPG");

}

}

}

Output:

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

Enter number of miles:

30

Enter number of gallons

2

Enter number of miles:

30

Enter number of gallons

2

Enter number of miles:

30

Enter number of gallons

2

total number of miles :90.0

total number of gallons :6.0

Overall MPG:15.0

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

1. //Assignment Question 15:solution

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

import java.util.Scanner;

import java.util.Arrays;

public class Assignment15 {

public static void main(String[] args) {

// TODO Auto-generated method stub

int cumulativeWeight = 0;

int count = 1;

char more = 'y';

String more1;

int weight;

int weightArr[] = new int[1];

do {

System.out.println("Please enter weight:");

Scanner scan = new Scanner(System.in);

weight = scan.nextInt();

while (weight < 0) {

System.out.println("Please enter weight greater than zero");

weight = scan.nextInt();

}

weightArr[count - 1] = weight;

System.out.println("more?(y/n)");

Scanner scan1 = new Scanner(System.in);

more1 = scan1.nextLine();

more = more1.charAt(0);

count++;

weightArr = Arrays.copyOf(weightArr, count);

System.out.println("Next item number is " + count);

} while (more == 'y');

for (int i : weightArr) {

cumulativeWeight = cumulativeWeight + i;

}

System.out.println("Average weight :" + (cumulativeWeight / count));

}

}

Output:

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

Please enter weight:

40

more?(y/n)

y

Next item number is 2

Please enter weight:

30

more?(y/n)

y

Next item number is 3

Please enter weight:

-1

Please enter weight greater than zero

-2

Please enter weight greater than zero

10

more?(y/n)

n

Next item number is 4

Average weight :20

**Assignment-3 solutions:**

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

1. //Assignment Question 5:solution

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

public class Assignment5 {

public static void main(String[] args) {

int a = 5, b = 2;

double c = 3.0;

a += b; // a=7

b++; // b =3

c--; // c = 2.0

c \*= a; // c = 14

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

}

}

Output:

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

a+b+c = 24.0

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

1. //Assignment Question 6:solution

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

public class Assignment6 {

public static void main(String[] args) {

int statementExecutions = 10000;

double instructionsPerStatement = 20.0;

double clockRate = 2000E6;

double instructionsPerCycle = 1.0;

double firstLevelCacheHit = 0.99;

double firstLevelCacheSwapTime = 0.0010E-6;

double secondLevelCacheHit = 0.999;

double secondLevelCacheSwapTime = 0.0050E-6;

double mainMemoryHit = 0.9999;

int mainMemoryPageSize = 4096;

double assumedDiskSpeed = 500.0;

double diskTrackLength = 400000;

double idealExecutionTime;

double expectedExecutionTime;

idealExecutionTime = statementExecutions \* instructionsPerStatement

/ (instructionsPerCycle \* clockRate);

System.out.println("Ideal Execution Time = " + idealExecutionTime);

expectedExecutionTime =

(((1 - firstLevelCacheHit) \* firstLevelCacheSwapTime)

+ ((1 - firstLevelCacheHit) \* (1 - secondLevelCacheHit) \*secondLevelCacheSwapTime)

+ ((1 - firstLevelCacheHit) \* (1 - secondLevelCacheHit)

\* (1 - mainMemoryHit) \* (0.5 / assumedDiskSpeed + mainMemoryPageSize

/ (diskTrackLength \* assumedDiskSpeed)))) \* (statementExecutions\*instructionsPerStatement);

System.out.println("Expected Execution Time = "+expectedExecutionTime);

}

}

Output:

-----------

Ideal Execution Time = 1.0E-4

Expected Execution Time = 2.2140959999999797E-6

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

1. //Assignment Question 9:solution

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

public class Assignment9 {

public static void main(String[] args) {

int a = 10;

int b;

double x = 3.5;

String s = "All";

char ch;

x+=a;

x--;

a /= 4-1;

b = s.length();

b += 4;

s += " is well";

ch = s.charAt(b);

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

System.out.println("x = "+x+"\ns = "+s);

System.out.println("ch = "+ch);

}

}

Output:

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

a = 3,b = 7

x = 12.5

s = All is well

ch = w

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

1. //Assignment Question 10:solution

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

import java.util.Scanner;

public class Assignment10 {

public static void main(String[] args) {

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

Scanner sc = new Scanner(System.in);

int x = sc.nextInt();

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

int y = sc.nextInt();

int temp = x;

x = y;

y = temp;

System.out.println("x = "+x+", y = "+y);

}

}

Output:

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

Enter initial value of x:

10

Enter initial value of y:

20

x = 20, y = 10

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

1. //Assignment Question 11 :solution

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

import java.util.Scanner;

public class Assignment11 {

public static void main(String[] args) {

System.out.println("Enter a radius value:");

Scanner sc = new Scanner(System.in);

double radius = Double.parseDouble(sc.nextLine());

System.out.println("Diameter = "+(2\*radius));

System.out.println("Circumference = "+(2\*Math.PI\*radius));

System.out.println("Area = "+(Math.PI\*radius\*radius));

}

}

Output:

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

Enter a radius value:

2.5

Diameter = 5.0

Circumference = 15.707963267948966

Area = 19.634954084936208

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

1. //Assignment Question 12:solution

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

public class Assignment12 {

public static void main(String[] args) {

System.out.println("Enter the month you were born:");

Scanner sc = new Scanner(System.in);

String month = sc.nextLine();

System.out.println("Enter the day you were born:");

int date = sc.nextInt();

System.out.println("Enter the year you were born:");

int year = sc.nextInt();

System.out.println("You will be 100 on "+month+" "+date+", "+(year+100));

}

}

Output:

----------

Enter the month you were born:

February

Enter the day you were born:

27

Enter the year you were born:

1992

You will be 100 on February 27, 2092