Assignment - 1

A good program must be time efficient and memory efficient. Performance of a program can be improved by optimizing the code. Optimizing can be done at design level and source code level

Identify different ways to solve a problem and choose the best algorithm

1. Finding a prime number

2. To find whether a number is Armstrong number

Codes written in Eclipse project directory

Assignment – 2

Conduct the Loop Optimisation for the following source code to improve the program’s performance.

1.

for (i=1; i<count; i++) {

a[i] = i\*j\*k\*l\*m\*n;

}

int const = j\*k\*l\*m\*n;

for (i=1; i<count; i++) {

a[i] = i\*const;

}

2.

for (discount = 0; discount < numD; discount++)

{

for (rate = 0; rate < numR; rate++)

{

rateTbl[rate] = rateTbl[rate] \* discountTbl[discount];

}

}

for (discount = 0; discount < numD; discount++)

{

int temp = discountTbl[discount];

for (rate = 0; rate < numR; rate++)

{

rateTbl[rate] = rateTbl[rate] \*temp;

}

}

3.

for (i=1; i<count; i++) {

a[i] = Math.pow(log(i) / log(3), 2);

}

for (i=1; i<count; i++) {

a[i] = Math.pow(log(i-3), 2);

}

Assignment-3

1. What is the result that will be printed out ?

public class Test{

public static void main(String[] args)

{

float f=(1/4) \*10;

int i = Math.round(f);

System.out.println(i);

}}

Answer = 0

2.

Which of the following are valid declarations?

1. int i = 0XCAFE;

2. boolean b = 0;

3. char c = 'A';

4. byte b = 128;

5. char c = ""A"";"

3.

class Test{

public static void main(String [] args){

int x= 2;

int y= 1;

for (int z = 0; z < 5; z++){

if (( ++x > 2 ) || (++y > 2)){

x++;

}}

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

}

}

What is the output of the program?

Compilation Error