Lab – Core Java – Day 2&3 –Rutuja Ghadge

1. Write a code for accepting three numbers and display the lowest number out of three numbers.

Ans:-

import java.util.Scanner;

public class LowestNum {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

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

double x = in.nextDouble();

System.out.print("Input the Second number: ");

double y = in.nextDouble();

System.out.print("Input the third number: ");

double z = in.nextDouble();

System.out.print("The lowest value is " + lowest(x, y, z)+"\n" );

}

public static double lowest(double x, double y, double z)

{

return Math.min(Math.min(x, y), z);

}

}

1. Write a code to accept student Details like (StudentID, StudentName,

StudentAge, Marks1, Marks2, Marks3)

Calculate Total and Percentage. If percentage is greater than 50 then display “PASS” else display “FAIL”.

Ans:-

import java.util.Scanner;

public class StudentDetails {

public static void main(String args[]) {

String name;

int id,age,marks1,marks2,marks3;

Scanner SC=new Scanner(System.in);

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

name=SC.nextLine();

System.out.print("Enter student ID: ");

id=SC.nextInt();

System.out.print("Enter student Age: ");

age=SC.nextInt();

System.out.print("Enter marks in Marks1, Marks2 and Marks3: ");

marks1=SC.nextInt();

marks2=SC.nextInt();

marks3=SC.nextInt();

int total=marks1+marks2+marks3;

float perc=(float)total/300\*100;

System.out.println("ID:" + id +"\tName: "+name + "\tAge: "+ age);

System.out.println("Marks (Marks1,Marks2,Marks3): " +marks1+","+marks2+","+marks3);

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

if (perc>=50)

{

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

}

else

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

}

}

1. Write a function to get grade of 3 subject marks.

Grade is based on average of 3 subject marks

* 1. Average>90 => A+
  2. Average<90 and average>=80 => A
  3. Average<80 and average>=70 => A- IV. Average<70 and average>=60 => B+ V. Average<60 and average>=50 => B

VI. Average<50 => FAIL

Ans:- import java.util.Scanner;

public class Grade {

public static void main(String[] theArgs) {

final int numberOfSubjects = 3;

int theMarks[] = new int[numberOfSubjects];

int i;

float total = 0, theAverage;

Scanner scanner = new Scanner(System.in);

for (i = 0; i < numberOfSubjects; i++) {

System.out.print("Enter the Marks of Subject (" + (i + 1) + ") :");

theMarks[i] = scanner.nextInt();

total = total + theMarks[i];

}

scanner.close();

// Now, Calculating and Printing theGrade

theAverage = total / numberOfSubjects;

System.out.print("The Student's Grade is: ");

if (theAverage >= 80) {

System.out.print("A");

}

else if (theAverage < 80 && theAverage >= 60) {

System.out.print("B");

}

else if (theAverage < 60 && theAverage >= 40) {

System.out.print("C");

}

else {

System.out.print("D");

}

}

}

1. Write a function to get lucky number of given number
   1. Lucky number => sum of individual digits of given number
   2. If the sum is more than 9, again do sum of individual digits of this sum.

i. i/p : 12345 => 6 ( i.e., 1+2+3+4+5 = 15, 1+5 = 6)

Ans:-

import java.util.Scanner;

public class SumOfDigit {

public static void main(String args[])

{

int number, digit, sum = 0;

Scanner sc = new Scanner(System.in);

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

number = sc.nextInt();

while(number > 0)

{

digit = number % 10;

sum = sum + digit;

number = number / 10;

}

System.out.println("Sum of Digits: "+sum);

}

}

1. Write a code for accepting a number and display the multiplication table of the given number.

Ans:-

public class MultiplicationTable {

public static void main(String[] args) {

int num = 5;

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

{

System.out.printf("%d \* %d = %d \n", num, i, num \* i);

}

}

}

1. Write a code for accepting three numbers and display the lowest number out of three numbers.

Ans:-

import java.util.Scanner;

public class LowestNum {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

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

double x = in.nextDouble();

System.out.print("Input the Second number: ");

double y = in.nextDouble();

System.out.print("Input the third number: ");

double z = in.nextDouble();

System.out.print("The lowest value is " + lowest(x, y, z)+"\n" );

}

public static double lowest(double x, double y, double z)

{

return Math.min(Math.min(x, y), z);

}

}

1. MCQ Questions:

|  |  |
| --- | --- |
| 1. | A Java source code file can’t have    Select the right answer:   1. Ten non-public classes. 2. Only one public class. 3. Two package statements. 4. One import statement. 5. Two methods with same name   Ans:- B) only one public class |

|  |  |
| --- | --- |
| 2. | Ans:- c) No output |
| 3. | Ans- D) |
| 4. |  |

|  |  |
| --- | --- |
|  | Ans – c) 3 2 1 |
| 5. | Ans- E) Compilation fails |

|  |  |
| --- | --- |
| 6. | Ans) – D) 8 |
| 7. | Ans:- E) None of above |
| 8. | D) NegativeArraySizeException |
| 9. | Which of the following will compile successfully?  Select the right answer:   1. for(int j = 0,int k=5; j < k; k--) ; 2. for(;;System.out.print(“a”)) ; C) for(); |

|  |  |
| --- | --- |
|  | 1. for(int k = 10; k--; k>0 ) ; 2. None of above.     Ans) - D |
| 10. | Ans)- A) 1.go2.go3.go4.go5.go |
| 11. | Ans) – A) 2015-01-20 |
| 12. | Ans- Another package statement. |