WEEK 3 TASK 2

Write a java program to create a calculator using packages following are the methods which has to be

present in the packages with Access Specifiers:

a. addition()

b. multiplication()

c. squareroot()

PROGRAM:

1)Calculator.java

package calculator;

public class Calculator {

public static double addition(double a, double b) {

return a + b;

}

public static double multiplication(double a, double b) {

return a \* b;

}

public static double squareroot(double a) {

if (a < 0) {

throw new IllegalArgumentException("There is no square root for a negative number.");

}

return Math.sqrt(a);

}

}

2)Main.java

package calculator;

import calculator.Calculator;

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in);

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

System.out.println("1. Addition");

System.out.println("2. Multiplication");

System.out.println("3. Square Root");

System.out.print("Choose an operation (1-3): ");

int choice = scanner.next.Int();

double result;

switch (choice)

{

case 1:

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

double num1 = scanner.nextDouble();

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

double num2 = scanner.nextDouble();

result = Calculator.addition(num1, num2);

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

break;

case 2:

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

num1 = scanner.nextDouble();

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

num2 = scanner.nextDouble();

result = Calculator.multiplication(num1, num2);

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

break;

case 3:

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

num1 = scanner.nextDouble();

try

{

result = Calculator.squareroot(num1);

System.out.println("Square root: " + result);

}

catch (IllegalArgumentException e) {

System.out.println(e.getMessage());

}

break;

default:

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

break;

}

scanner.close();

}

}

OUTPUT:

