# Assignment1

Create a java program that acts as a simple calculator

**import** java.util.Scanner;

**public** **class** simplecalculator {

**public** **static** **void** main(String[] args) {

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

**try**

{

System.***out***.println("enter the first number:"); //taking the user inputs

**double** n1 = s.nextDouble();

System.***out***.println("enter the second number:");

**double** n2 = s.nextDouble();

//taking user to enter the operator

System.***out***.println("enter an operator(+,-,\*,/):");

**char** operator = s.next().charAt(0);

**double** result;

//perform calculating based on the operator

**switch**(operator) {

**case** '+':

result = n1 + n2;

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

**break**;

**case** '-':

result = n1 - n2;

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

**break**;

**case** '\*':

result = n1 \* n2;

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

**break**;

**case** '/':

**if**(n2 == 0)

{

System.***out***.println("error:division by zero is not allowed");

}

**else**

{

result = n1/n2;

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

}

**break**;

}

}

**catch**(Exception e)

{

System.***out***.println("error:invalid input.please enter numeric values for number");

}

}

}

**RESULT**

**o/p1**

**enter the second number:**

**5**

**enter an operator(+,-,\*,/):**

**+**

**result:15.0**

**o/p2**

**enter the first number:**

**10**

**enter the second number:**

**5**

**enter an operator(+,-,\*,/):**

**-**

**result:5.0**

**o/p3**

**enter the first number:**

**10**

**enter the second number:**

**5**

**enter an operator(+,-,\*,/):**

**\***

**result:50.0**

**o/p4**

**enter the first number:**

**10**

**enter the second number:**

**5**

**enter an operator(+,-,\*,/):**

**/**

**result:2.0**

**o/p5**

**enter the first number:**

**10**

**enter the second number:**

**0**

**enter an operator(+,-,\*,/):**

**/**

**error:division by zero is not allowed**

# Assignment2

Write code for simulate a simple banking application

**class** Bankaccount

{

**double** balance;

//constructor creating

**public** Bankaccount(**double** initialbalance)

{

**if**(initialbalance >= 0)

{

**this**.balance = initialbalance;

}

**else**

{

**throw** **new** IllegalArgumentException("Initial balance cannot br negative");

}

}

//method to deposit

**public** **void** deposit(**double** amount)

{

**if**(amount > 0)

{

balance +=amount;

System.***out***.println("deposited:"+amount);

}

**else**

{

System.***out***.println("deposit amount must be positive");

}

}

//method to withdraw

**public** **void** withdraw(**double** amount)

{

**try**

{

**if**(amount <= 0)

{

**throw** **new** IllegalArgumentException("withdrawal amount must be positive");

}

**else** **if** (amount > balance)

{

**throw** **new** IllegalArgumentException("insufficient balance.withdrawal amount exceeds balance");

}

**else**

{

balance -= amount;

System.***out***.println("withdraw:"+ amount);

}

}

**catch**(Exception e)

{

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

}

}

**public** **double** getBalance()//method to check balance

{

**return** balance;

}

}

**public** **class** simplebanking {

**public** **static** **void** main(String[] args) {

Bankaccount ba = **new** Bankaccount(10000);

ba.deposit(2000);

System.***out***.println("current balance:"+ba.getBalance());

ba.withdraw(5000);

System.***out***.println("current balance:"+ba.getBalance());

}

}

**RESULT**

**deposited:2000.0**

**current balance:12000.0**

**withdraw:5000.0**

**current balance:7000.0**