Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

**05**

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| 1 | **Write a program that throw double value and that value received by integer catch block. (hint: multiple catch block will be used, for example if you throw 55.5 value which is double value. Output; “Input is double value 55.5”).** |
| 2 | **Write a program that take three subject’s marks at runtime, if any input marks exceeded from 100, must throw exception, “input marks are invalid”.** |
| 3 | **Write a C++ program to perform arithmetic operations on two numbers and throw an exception if the dividend is zero or does not contain an operator.** |

Submitted On:

**30/12/2022**

**Task # 01: Write a program that throw double value and that value received by integer catch block. (hint: multiple catch block will be used, for example if you throw 55.5 value which is double value. Output; “Input is double value 55.5”).**

**Solution:**

#include<iostream>

#include<stdio.h>

#include<exception>

#include <cmath>

using namespace std;

int main() {

cout << "Input any number: ";

double num;

cin >> num;

try

{

if (floor(num) != ceil(num)) {

throw "Input value is double value ";

}

}

catch (const char\* e)

{

cout << "" << e << num;

}

return 0;

}

**Output:**

**Graphical user interface, text

Description automatically generated**

**Task # 02: Write a program that take three subject’s marks at runtime, if any input marks exceeded from 100, must throw exception, “input marks are invalid”.**

**Solution:**

#include<iostream>

#include<stdio.h>

#include<exception>

#include <cmath>

using namespace std;

int main()

{

int subject[3];

for (int i = 0; i < 3; i++)

{

cout << "Enter Marks of Subject " << (i + 1) << ":" ;

try

{

cin >> subject[i];

if (subject[i] > 100)

{

throw "Input marks are invalid\n";

}

}

catch (const char\* e)

{

cout << "" << e;

}

}

return 0;

}

**Output:**

**Text, application, chat or text message

Description automatically generated**

**Graphical user interface, text

Description automatically generated**

**Text

Description automatically generated**

**Task # 03: Write a C++ program to perform arithmetic operations on two numbers and throw an exception if the dividend is zero or does not contain an operator.**

**Solution:**

#include<iostream>

#include<stdio.h>

#include<exception>

#include <cmath>

using namespace std;

int main() {

int n1, n2;

char oper;

int x = 1;

while (x == 1) {

try

{

cout << "Enter First Num: ";

cin >> n1;

cout << "Enter Operator: ";

cin >> oper;

cout << "Enter Second Num: ";

cin >> n2;

switch (oper)

{

case '+':

cout << "Result:" << (n1 + n2);

break;

case '-':

cout << "Result:" << (n1 - n2);

break;

case '\*':

cout << "Result:" << (n1 \* n2);

break;

case '/':

if (n2 == 0) {

throw "Number Cannot Be Divided By Zero\n";

}

else {

cout << "Result:" << (n1 / n2);

}

break;

default:

throw "Invalid Operator";

break;

}

cout << "\n";

}

catch (const char\* e)

{

cout << e;

}

cout << "\n\nWant To Calculate More?\n1)Yes\n2)No\nChoose: ";

int c;

cin >> c;

if (c != 1) {

cout << "Program End..!!";

break;

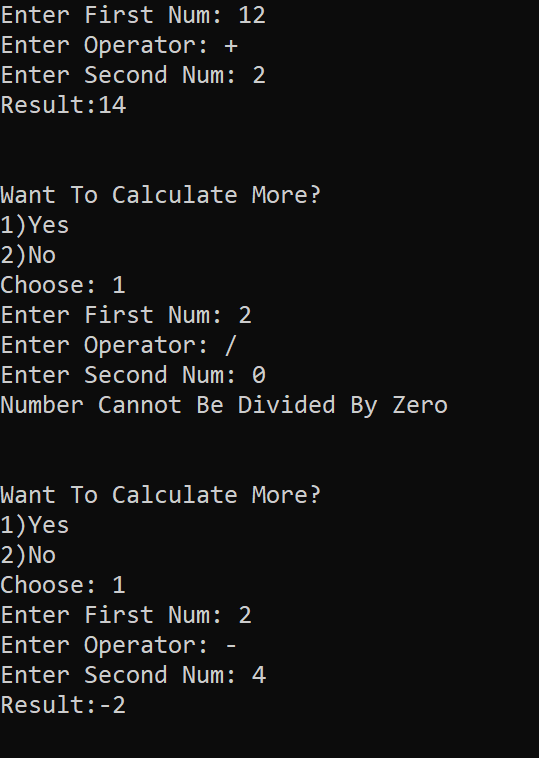
}

}

return 0;

}

**Output:**

****

**Text

Description automatically generated**