

**EC 2010**  
**COMPUTER PROGRAMMING**  
**LAB 04**

**NAME :RENUJAN J.**

**REGISTRATION NO. :2022/E/065**

**DATE ASSIGNED :19 Oct 2023**

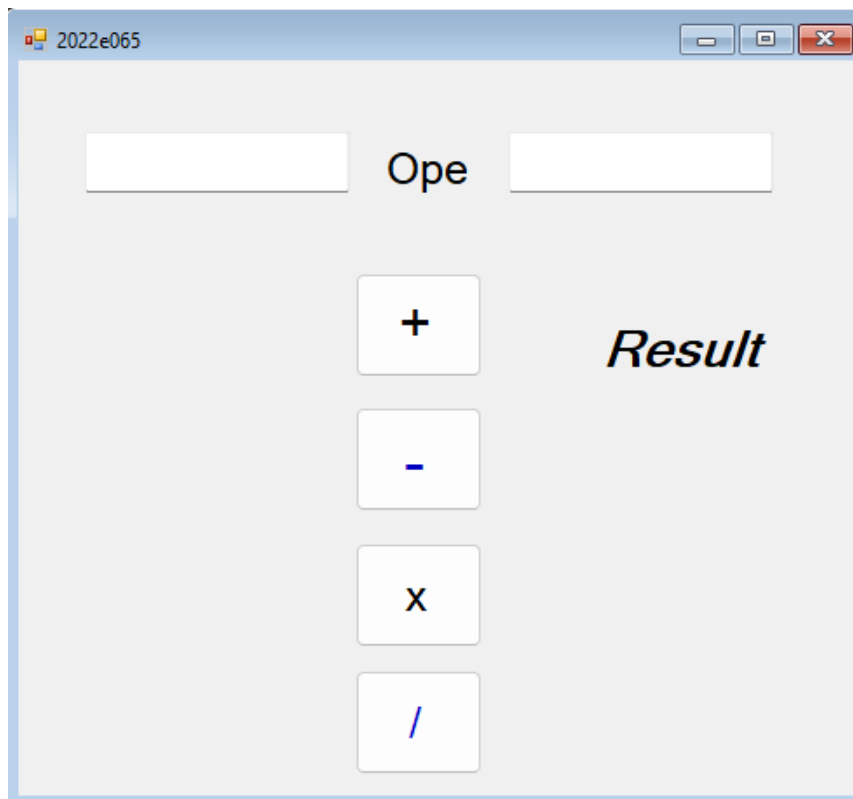
# QUESTION 01

## CPP Script

```
MyForm.h  MyForm.cpp*  MyForm.h [Design]
GUI2022e065_01  (Global Scope)

1  // RENUJAN J.
2  // 2022/E/065
3  // EC2010
4  // Group: B
5  // Lab: 04
6  // Program Description: [A simple arithmetic Calculator to do the basic arithmetic operations.]
7  // Certificate of Authenticity:
8  // I certify that the code in the method function main of this project
9  // is entirely my own work.
10 // Follow this with a description of the type of assistance.
11
12 #include "MyForm.h"
13
14 using namespace System;
15 using namespace System::Windows::Forms;
16 [STAThreadAttribute]
17
18 void main(array<String^>^ args) {
19     Application::SetCompatibleTextRenderingDefault(false);
20     Application::EnableVisualStyles();
21     GUI2022e06501::MyForm frm;
22     Application::Run(% frm);
23 }
```

## Design

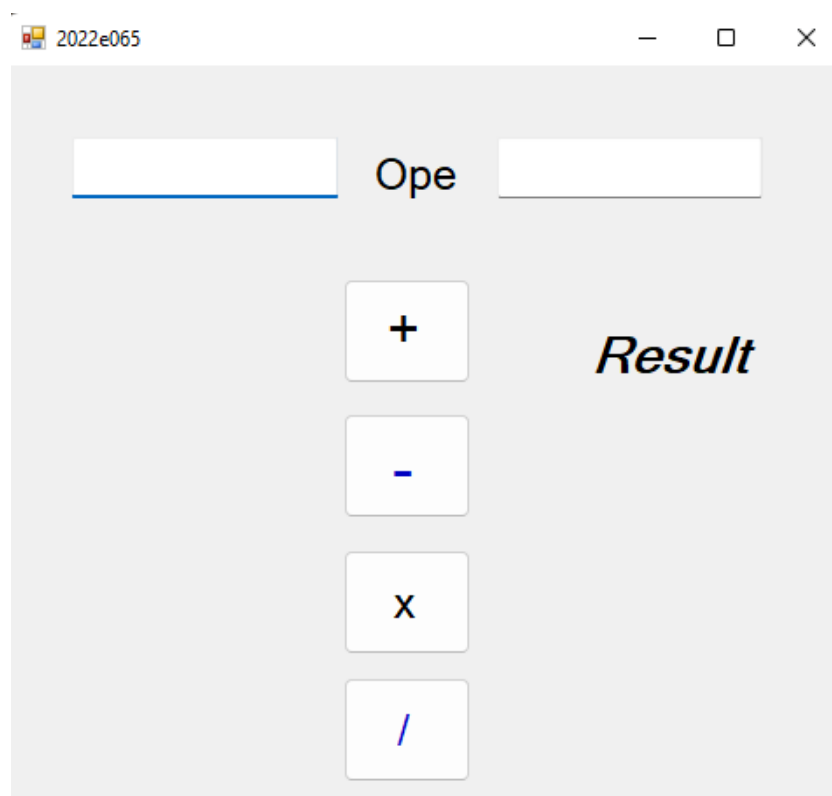


## h Script

```
MyForm.h*  MyForm.cpp*  MyForm.h [Design]*
GUI2022e065_01  (Global Scope)

174
175 }
176 #pragma endregion
177 private: System::Void button1_Click(System::Object^ sender, System::EventArgs^ e) {
178     label1->Text = " +";
179     double results = System::Convert::ToDouble(textBox1->Text) + System::Convert::ToDouble(textBox2->Text);
180     label2->Text = "= " + System::Convert::ToString(results);
181 }
182 private: System::Void button2_Click(System::Object^ sender, System::EventArgs^ e) {
183     label1->Text = " -";
184     double results = System::Convert::ToDouble(textBox1->Text) - System::Convert::ToDouble(textBox2->Text);
185     label2->Text = "= " + System::Convert::ToString(results);
186 }
187 private: System::Void button3_Click(System::Object^ sender, System::EventArgs^ e) {
188     label1->Text = " x";
189     double results = System::Convert::ToDouble(textBox1->Text) * System::Convert::ToDouble(textBox2->Text);
190     label2->Text = "= " + System::Convert::ToString(results);
191 }
192 private: System::Void button4_Click(System::Object^ sender, System::EventArgs^ e) {
193     label1->Text = " /";
194     double results = System::Convert::ToDouble(textBox1->Text) / System::Convert::ToDouble(textBox2->Text);
195     label2->Text = "= " + System::Convert::ToString(results);
196 }
197 };
198 }
199
```

## Result



## Get Input

Calculator window titled "2022e065". It features two input fields at the top: the first contains "10" and the second is labeled "Ope" and contains "3". Below these is a vertical column of four buttons: "+", "-", "x", and "/". To the right of these buttons, the word "Result" is displayed in a bold, italicized font.

## Addition

Calculator window titled "2022e065". It shows the addition of 10 and 3. The input fields contain "10" and "3", with a "+" button between them. Below the input fields, a vertical column of buttons shows the "+" button selected (highlighted with a blue border). To the right of the buttons, the result "= 13" is displayed in a bold, italicized font.

## Subtraction

Calculator window titled "2022e065". It shows the subtraction of 3 from 10. The input fields contain "10" and "3", with a "-" button between them. Below the input fields, a vertical column of buttons shows the "-" button selected (highlighted with a blue border). To the right of the buttons, the result "= 7" is displayed in a bold, italicized font.

## Multiplication

Calculator window titled "2022e065". It shows the multiplication of 10 and 3. The input fields contain "10" and "3", with an "x" button between them. Below the input fields, a vertical column of buttons shows the "x" button selected (highlighted with a blue border). To the right of the buttons, the result "= 30" is displayed in a bold, italicized font.

## Division

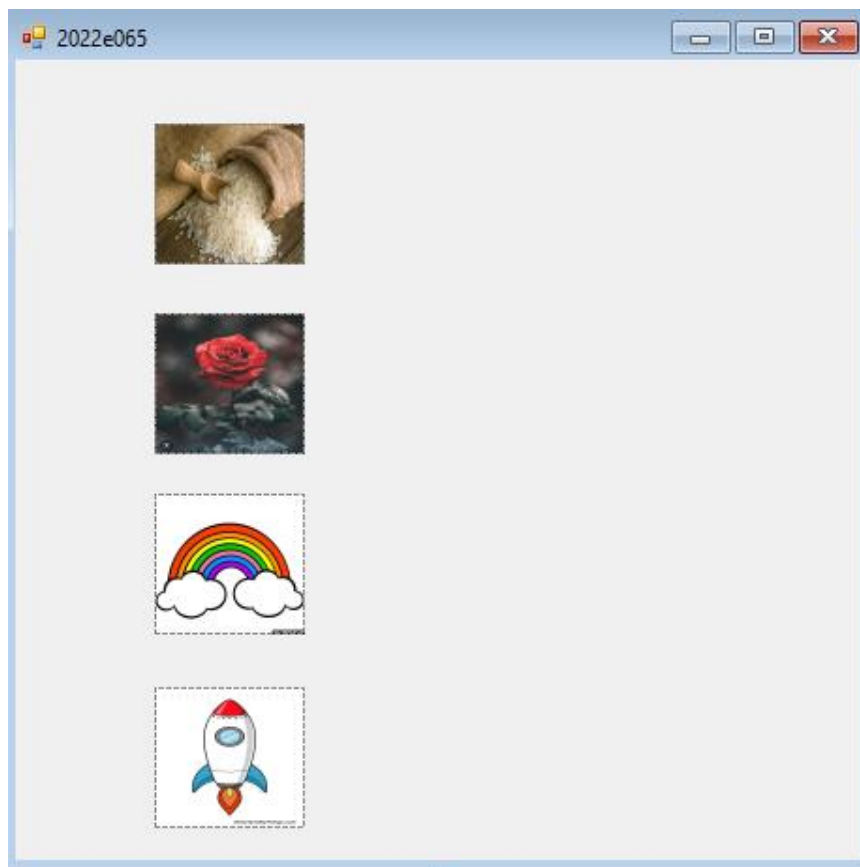
Calculator window titled "2022e065". It shows the division of 10 by 3. The input fields contain "10" and "3", with a "/" button between them. Below the input fields, a vertical column of buttons shows the "/" button selected (highlighted with a blue border). To the right of the buttons, the result "= 3.3333333" is displayed in a bold, italicized font.

## QUESTION 02

### CPP Script

```
GUI2022e065_02 (Global Scope)
1 // RENUJAN J.
2 // 2022/E/065
3 // EC2010
4 // Group: B
5 // Lab: 04
6 // Program Description: [Clicks on the picture word related to that only appear on the screen.]
7 // Certificate of Authenticity:
8 // I certify that the code in the method function main of this project
9 // is entirely my own work.
10 // Follow this with a description of the type of assistance.
11
12 #include "MyForm.h"
13
14 using namespace System;
15 using namespace System::Windows::Forms;
16 [STAThreadAttribute]
17
18 void main(array<String^>^ args) {
19     Application::SetCompatibleTextRenderingDefault(false);
20     Application::EnableVisualStyles();
21     GUI2022e06502::MyForm frm;
22     Application::Run(% frm);
23 }
24
```

### Design

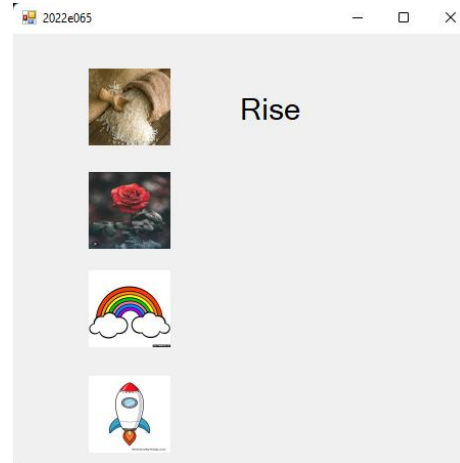
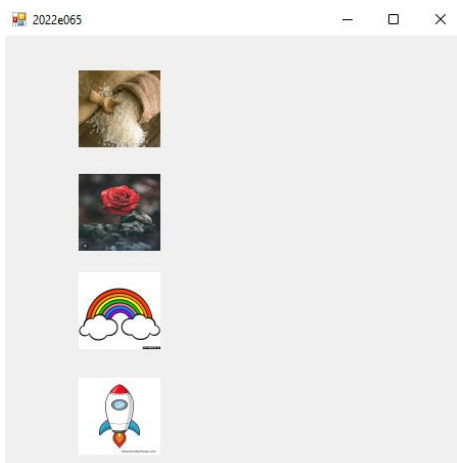


# h Script

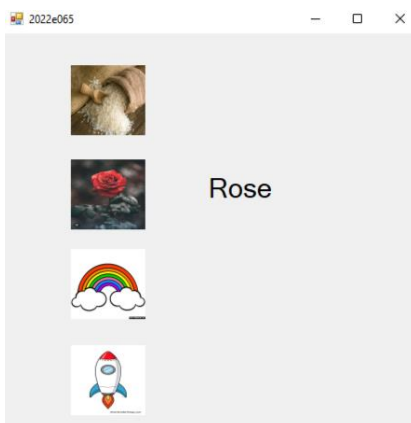
```
MyForm.h  MyForm.h [Design]  MyForm.cpp
GUI2022e065_02  (Global Scope)
180
181     }
182     #pragma endregion
183     private: System::Void pictureBox1_Click(System::Object^ sender, System::EventArgs^ e) {
184         label1->Visible = true;
185         this->label1->Text = "Rise";
186         label2->Hide(), label3->Hide(), label4->Hide();
187     }
188     private: System::Void pictureBox2_Click(System::Object^ sender, System::EventArgs^ e) {
189         label2->Visible = true;
190         this->label2->Text = "Rose";
191         label1->Hide(), label3->Hide(), label4->Hide();
192     }
193     private: System::Void pictureBox3_Click(System::Object^ sender, System::EventArgs^ e) {
194         label3->Visible = true;
195         this->label3->Text = "Rainbow";
196         label1->Hide(), label2->Hide(), label4->Hide();
197     }
198     private: System::Void pictureBox4_Click(System::Object^ sender, System::EventArgs^ e) {
199         label4->Visible = true;
200         this->label4->Text = "Rocket";
201         label1->Hide(), label2->Hide(), label3->Hide();
202     }
203 }
204
205
```

## Result

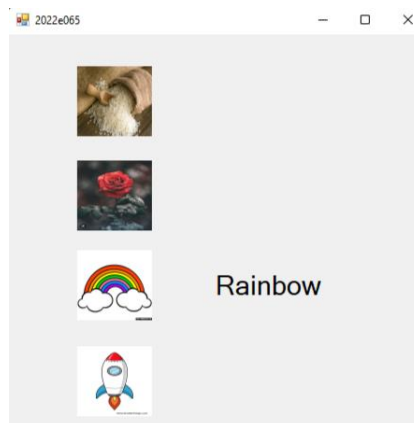
### When click the picture 1



### When click the picture 2



### When click the picture 3



### When click the picture 4

