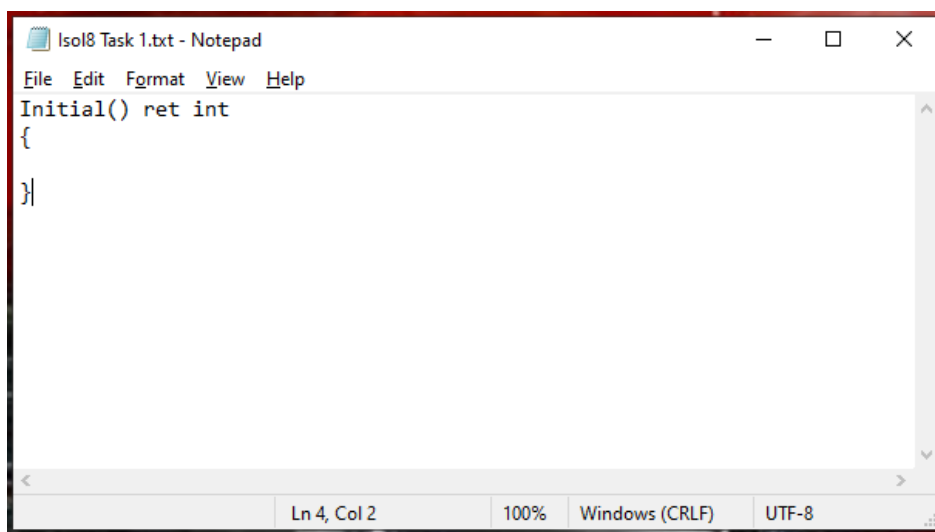


In Isol8, programs are written in a text file in notepad for example. Once the program has been written, it will be compiled and run by a command in the windows command line interface.

In this first task, you will write a basic calculator type program which will take two numbers and perform addition, subtraction, multiplication, and division and print each result.

To complete this task, open a notepad file,

You will need to write a function called "initial" for the program to run. This is a MUST in any Isol8 program as it will NOT compile without it. This function should have a return type INT. This should look like this:



```
Isol8 Task 1.txt - Notepad
File Edit Format View Help
Initial() ret int
{
}
Ln 4, Col 2 100% Windows (CRLF) UTF-8
```

Now that you have this, the next step is to define the variables, you will need four variables:

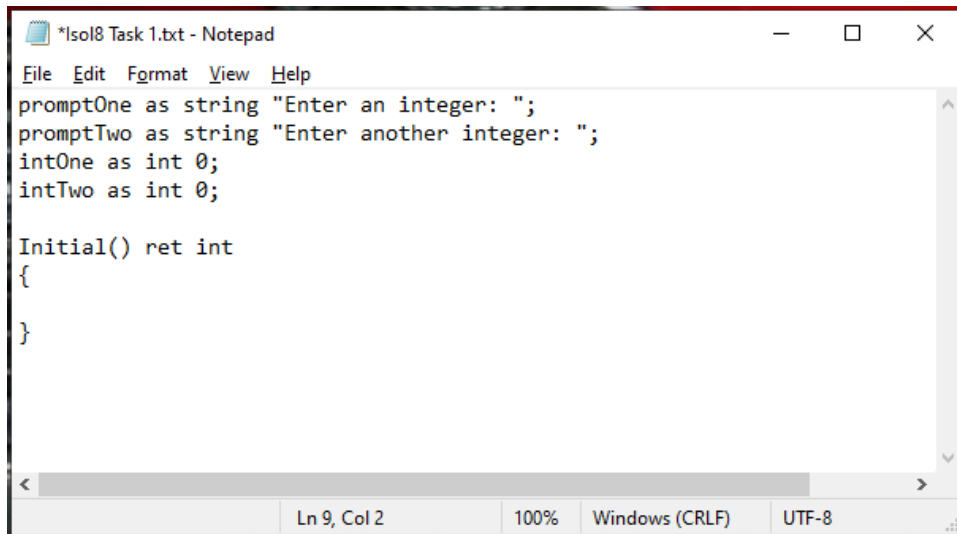
Firstly, you will define two variables of type INT, one for each number, these will be initialised as 0 to start with

Secondly, you will define two variables of type string to prompt the user for a number input.

In Isol8, the syntax for defining variables is as follows:

**<VariableName> as <VariableType> <VariableValue>;**

Your program should now look like the following:



```
*Isol8 Task 1.txt - Notepad
File Edit Format View Help
promptOne as string "Enter an integer: ";
promptTwo as string "Enter another integer: ";
intOne as int 0;
intTwo as int 0;

Initial() ret int
{
}

Ln 9, Col 2    100%    Windows (CRLF)    UTF-8
```

The next step is to prompt the user for the numbers and assign the input to the variables we have created. To prompt the user, we can use the variables we have initialised.

The syntax for printing variables and assigning inputs to variables is as follows:

**out(<VariableName>);**

**in(<VariableName>);**

Additionally, for input and output to work, the compiler requires four libraries to be present. This can be done by inserting the following at the start of the program

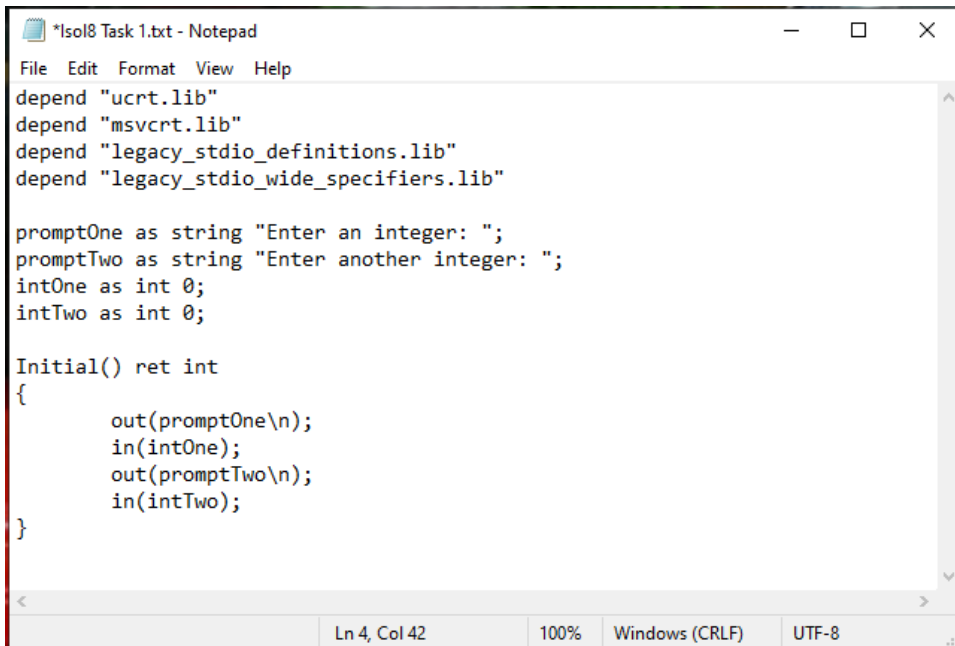
**depend "ucrt.lib"**

**depend "msvcrt.lib"**

**depend "legacy\_stdio\_definitions.lib"**

**depend "legacy\_stdio\_wide\_specifiers.lib"**

This should result in the following program:



```
*Isol8 Task 1.txt - Notepad
File Edit Format View Help
depend "ucrt.lib"
depend "msvcrt.lib"
depend "legacy_stdio_definitions.lib"
depend "legacy_stdio_wide_specifiers.lib"

promptOne as string "Enter an integer: ";
promptTwo as string "Enter another integer: ";
intOne as int 0;
intTwo as int 0;

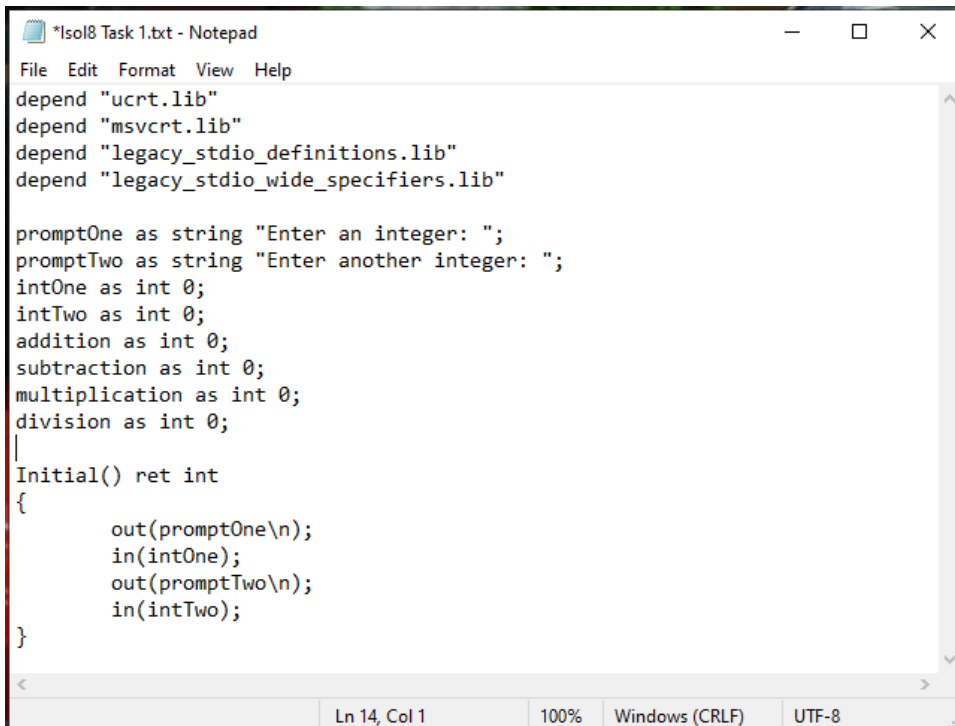
Initial() ret int
{
    out(promptOne\n);
    in(intOne);
    out(promptTwo\n);
    in(intTwo);
}
```

Ln 4, Col 42 100% Windows (CRLF) UTF-8

Next, you will need to define variables for each result of the operations that will be ran on the numbers collected from the user.

4 variables will be needed. One per operation

Once this is done, the program should look like this:



```
*Isol8 Task 1.txt - Notepad
File Edit Format View Help
depend "ucrt.lib"
depend "msvcrt.lib"
depend "legacy_stdio_definitions.lib"
depend "legacy_stdio_wide_specifiers.lib"

promptOne as string "Enter an integer: ";
promptTwo as string "Enter another integer: ";
intOne as int 0;
intTwo as int 0;
addition as int 0;
subtraction as int 0;
multiplication as int 0;
division as int 0;

Initial() ret int
{
    out(promptOne\n);
    in(intOne);
    out(promptTwo\n);
    in(intTwo);
}
```

Ln 14, Col 1 100% Windows (CRLF) UTF-8

The next step is to add the operators responsible for the mathematics as well as assigning the result to the variables we created previously and printing them.

This is the syntax to assign variables.

**<Variable> = <Value/Variable>;**

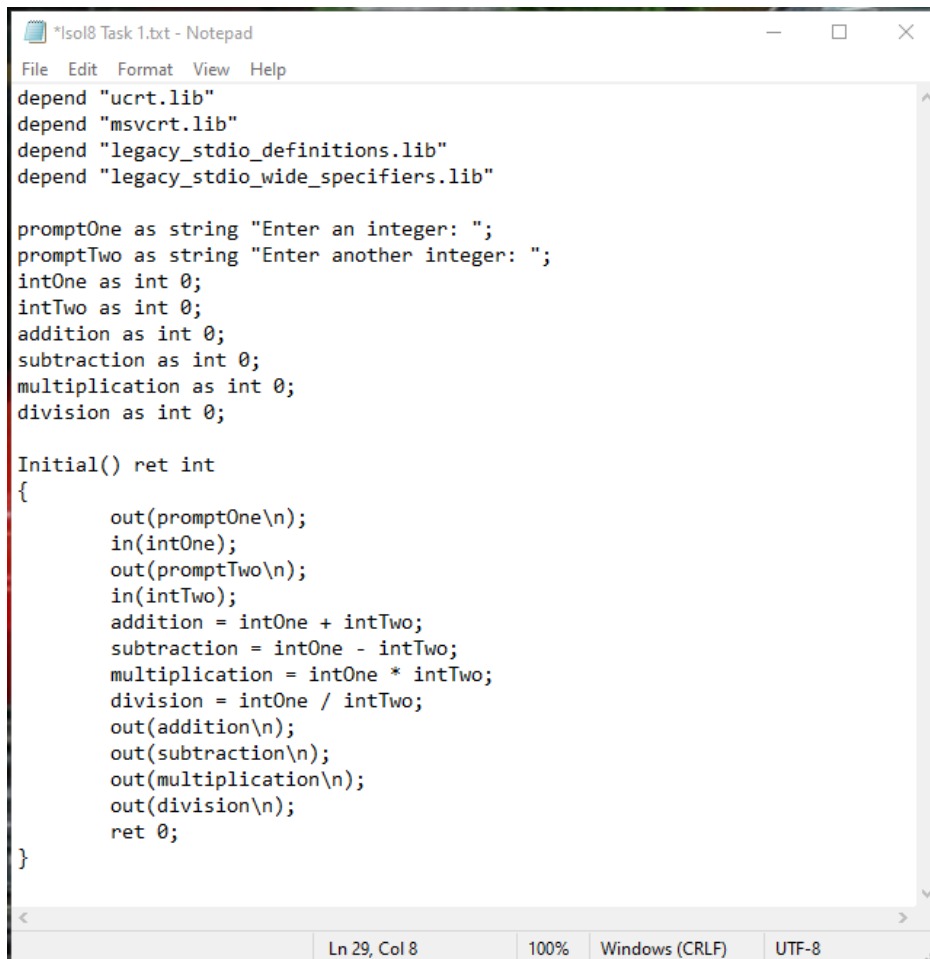
And the syntax for maths using variables is as follows:

**<variable 1> = <variable 2> + <variable 3>;**

**This syntax works with the following operators: +, -, \*, /**

The last step is to now add a return statement at the end of the program. In this case this will simply be **"ret 0;"**

The finished program should now look like so:

A screenshot of a Notepad window titled '\*Isol8 Task 1.txt - Notepad'. The window contains the following code:

```
File Edit Format View Help
depend "ucrt.lib"
depend "msvcrt.lib"
depend "legacy_stdio_definitions.lib"
depend "legacy_stdio_wide_specifiers.lib"

promptOne as string "Enter an integer: ";
promptTwo as string "Enter another integer: ";
intOne as int 0;
intTwo as int 0;
addition as int 0;
subtraction as int 0;
multiplication as int 0;
division as int 0;

Initial() ret int
{
    out(promptOne\n);
    in(intOne);
    out(promptTwo\n);
    in(intTwo);
    addition = intOne + intTwo;
    subtraction = intOne - intTwo;
    multiplication = intOne * intTwo;
    division = intOne / intTwo;
    out(addition\n);
    out(subtraction\n);
    out(multiplication\n);
    out(division\n);
    ret 0;
}
```

The status bar at the bottom shows 'Ln 29, Col 8', '100%', 'Windows (CRLF)', and 'UTF-8'.