

Lab 2
EET 340
Introduction to Computer Organization and Architecture

Write an assembly program and simulate it using ARMSim or online editor to calculate the sum of first 10 natural numbers. The resulting sum will be contained on Register R9. Comment each line of the codes. You should name the file as Lab2.S

Hints:

- The sum of first 10 natural numbers is $1+2+3+4+5+6+7+8+9+10 = 55$
- The corresponding C++ code has been given below. You can simply convert the C++ code to assembly code.
- See the example/sample code on the “Lab Tutorials” section.

C++ source code:

```
#include <iostream>
using namespace std;
int main()
{
    int i,sum=0;
    for (i = 1; i <= 10; i++)
    {
        sum=sum+i;
    }
    cout << "The sum of first 10 natural numbers: "<<sum << endl;
}
```

C++ Sample output:

The sum of first 10 natural numbers: 55

SUBMISSION PROCEDURE

You can simply upload Lab2.S file on the blackboard.

If you use online editor, you can simply copy your code on notepad/text files and name the files as Lab2. You can simply submit your notepad/text files.