Lab Assignment 3

Himanshu Gupta

1. Write a C Program to Check whether the number you input is Palindrome or Not.

```c
#include <stdio.h>
int main()
{
    int num;
    int cpynum = num;
    int revnum = 0;
    scanf("%d" , &num);
    cpynum = num;
    while(num != 0)
    {
        revnum = revnum*10 + num%10;
        num/=10;
    }
    if(revnum == cpynum)
    {
        printf("\nIs Palindrone");
    }
    else
    {
        printf("\nNot Palindrone");
    }

}
```

```
$ bin/1.o
```

Input:

121

Output:

Is Palindrone

2. Write a C Program to Check Whether a Number is Prime or Not. #include <stdio.h> int main() { int input; int truth; scanf("%d" , &input); for(int i = 2 ; i < input; i++) { if(input%i == 0) { printf("Not Prime"); truth = 0; break; } truth = 1; } if(truth) { printf("Is Prime"); } } #### `$ bin/2.o`

Input:

23

Output:

Is Prime

3. Write a C program to check whether a three digit number is an Armstrong number or not.

```c
#include <stdio.h>
int main()
{
    int input;
    int tmp;
    int cpyinput;
```

```
    int arm = 0;
    scanf("%d" , &input);
    cpyinput = input;
    while(input != 0)
    {
        tmp = (input%10); tmp = tmp*tmp*tmp;
        input/=10;
        arm+=tmp;
    }
    if(arm == cpyinput)
    {
        printf("Is Armstrong");
    }
    else
    {
        printf("Not Armstrong");
    }
}
```

```
$ bin/3.o
```

Input:

123

Output:

Not Armstrong

4. Write a C Program to find largest of given three numbers.

```
#include <stdio.h>
int main()
{
   int input1 , input2 , input3;
   scanf("%d%d%d" , &input1 , &input2 , &input3);
   if(input1 < input2)
   {
       if(input2 < input3)
           printf("\n%d" , input3);
        else
           printf("\n%d" , input2);
   }
   else
   {
       if(input1 < input3)
           printf("\n%d" , input3);
        else
           printf("\n%d" , input1);
   }
}
```

```
$ bin/4.o
```

Input:

120
6
154

Output:

154

5. Write a C program to print Fibonacci Sequence up to a certain number input by you.

```c
#include <stdio.h>
int main()
{
    int term1 = 0, term2 = 1 , term3 = term1+term2, input;
    scanf("%d" , &input);
    printf("\n%d\n%d" , term1 , term2);
    while(term3 <= input)
    {
        printf("\n%d" , term3);
        term1 = term2;
        term2 = term3;
        term3 = term1 + term2;
    }
}
```

```
$ bin/5.o
```

Input:

10

Output:

0
1
1
2
3
5
8