Sandesh Ghimire

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**Homework 3: Test Report**

The purpose of this program is to find the Armstrong number between 0 to 500. It is done by using loop. Three different types of loops are used to build the same program.

The program contains following files:

Armstrong1.cpp

Armstrong2.cpp

Armstrong3.cpp

Armstrong1\_script.txt

Armstrong2\_script.txt

Armstrong3\_script.txt

The entry point of the program is: either Armstrong1.cpp or Armstrong2.cpp or Armstrong3.cpp.

The command to compile it is: g++ Armstrong1.cpp

After successfully compiling the program, run ./a.out to execute the program.

**Comparing three loops**:

1. For loop

For loop is considered as precondition loop. Using for loop to create this program is the worst choice any program can make. Because the program loops more then required. So, to control the loop an extra variable is used. This will increase the memory of program.

1. While Loop

While loop is also a pre-condition loop. While could be the best choice to do this program because it uses less variable then for loops and also the program does not loops more then required.

1. Do while loop

It is the post conditional loop. It acts same like while loop but the checking of the condition is done at last.

In my view, using while loop is most efficient to code this program.