

Computer Science 327

Homework 1

This assignment will get you familiar with some of the basic tools needed to edit, compile, execute, and turn in your assignments. Although you will not use “git” for this assignment, you will also register for a git repository on a university git server. This assignment is worth 10 points. Most assignments will be between 10 and 30 points.

Part 1) (1 point) Access the web page <https://git.linux.iastate.edu> and use your netid to login. Subsequent assignments may require you to create and use git repositories.

Part 2) (9 points) Write a C program to compute prime numbers between 2 and n, where n is given to the program by the user. Your solution must also use make to manage the solution. Here are the details.

You may use C arrays in this project. We have not discussed this in class, but they are similar to Java arrays in use, and a simple example will suffice for this assignment. (Note that it is possible to do this assignment without arrays at the cost of a longer running time of the algorithm.)

Example use of array in a program:

```
#include <stdio.h>
int main()
{
    int a[20];
    int i;
    for (i=0; i<20; i++)
    {
        printf("%d\n", a[i] );
    }
}
```

If you were to compile and run the program above, then with high probability you would find that the array a has many non-zero locations. Do not assume that the compiler will automatically zero out an array in the C language. It does in some cases, but not when the array is declared as a local variable.

You must use a makefile to correctly compile your program, and also include a “clean” target that removes all object and executable files.

You may turn in your project by uploading a zip file or tarball (we will talk about this in class) containing your C source code and makefile only. If you turn in other files not required for compilation, you will lose points.