CPSC 351 Project 1 (100 points)

Due by March 6, 11:59 PM

This project can be done individually or in a group of maximum **3** people. For a group of 2 or 3 members, each of the group members will have to submit, even though the code will be the same for all the members of the group. All members of the group will get the same grade. If one group member does not submit, that person gets 0. Indicate in an additional .txt file, the names and email ids of members in the group. If working individually, indicate in the .txt, your name and email id.

Goal:

In **popen.cpp**, we saw how to:

Launch the **hash program** **md5sum** to compute the **MD5 hash** of a **file named** /bin/ls. Also, to get a file pointer representing the output stream of the program.

In this project, you should read in a **file name** from the terminal. The **given skel.cpp** runs a ***for*** **loop** over a set of **hash programs**. In each iteration of this ***for*** **loop**, **a child process is *forked***. The parent sends the **file name** to the child. The child calls a function (popen) to compute the **respective hash** (as specified by the hash program) of the **file name**. The child sends the computed hash value back to the parent.

The parent communicates with the child using pipes.

Starter code is provided to you in **skel.cpp**. A lot of **hints in the form of comments** are also provided in **skel.cpp.** You should add your code to the given starter code, wherever the comments guide you to do that. Over and above that, you should remember to add code where it is important for completing any task (the comments may not always be provided for everything).

Hint: A lot of the code builds upon the code in **popen.cpp** and **double_pipe.cpp**.

FILES TO BE SUBMITTED

1) skel.cpp (completed with your code)
2) .txt file with name/s and email id/s

Blurb for your resume

Use your GitHub account as a ready-to-show portfolio of your programming projects to potential employers.