# CS265: Advanced Programming Tools and Techniques

***Lab #3 – Bash Shell***

**Before you start**

* Leverage the man or help utilities to access the manual pages for commands and really learn how commands work
* Type “man 7 glob” to read how globs work.

**Setting Up the Lab**

As you work through the lab, questions will be denoted with a Q. Fill in your answers in a text file called lab3.txt.

* Make some appropriate subdirectory for this lab and go there e.g., ~yourid/cs265/lab3 Ensure your directory restricts access to other students.

$ mkdir cs265 (if you do not have it already, cd if you do)

$ chmod go-rwx cs265 (if you have not done this already)

$ cd cs265

$ mkdir lab3

$ cd lab3

$ chmod go-rwx lab3

**Bash Commands**

**Q1** – Create a file that contains a space in the name for instance

my favorite picture.jpeg

Show the command you used

**Q2** – Also create the following files

a

aa

b

ab

abab

Show the command to list all files whose name starts with a and ends with b

**Q3** - Show the command to list all files whose name contains an a

**Q4** - Show the command to list all files whose name contains a space

**Q5** – Show the command to list all files whose name ends with a or g

**Q6 -**   Show the command to list all files whose name does not end with b

**Q7**- Show the command to list all files whose name starts with a but does not end with b

**Q8**- Create a bash script that contains the creation of the files from Q1 and Q2. Show the contents of your script.

**Q9** – Show the command to make the script executable.

**Q10** – Execute the script and show the command to use to check that the script run successfully.

**Q11 -** Show the command would you use to determine if the command history is a builtin?

**Q12** -   Show the command to display the square root of 5

**Q13 –** Show the command to put the list of files in the current working directory into a new shell variable named lsout. Also show the command to display the value of the shell variable.

**Q14** – Show the command to add the value of the shell variable lsout into a new file named ls.out

**Q15** - Show the commands needed to expand your $PATH environment variable to include the current directory

**What to submit**

Submit your file lab3.txt in Blackboard by the deadline.