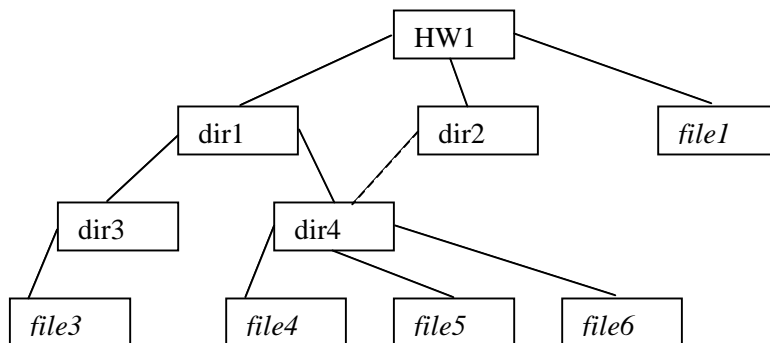Note: The first part of this assignment requires your to work on the computer. The second part of the assignment requires you to provide written answers. Both parts will be turned in online, so you should use some word processing program or text editor to work on the second part.

Part 1 (25 points)

1. Create the following directory structure somewhere under your home directory. The names in italics are ordinary files, while the others are directories. The dashed line is a soft link; `dir2` is a symbolic link to `dir1/dir4`.

- The directory `HW1` should have all permissions set for the owner, and none for others and group.
- `dir1` should have all permissions set for the owner and read and execute alone for others.
- `dir3` should have all permissions set for the owner, read permission alone for group, and none for others.
- `file1` should have read permission alone set for all.
- `file5` should have execute permission alone set for others and group, and read and execute permission for the owner.
- You may set any permission you desire for the other files and directories, but do not give write permission to group or others.

Part 2 (Each question is worth 5 points)

1. How will you use `ls` with wildcards to list all files that end in `.doc` ?
2. How will you use `ls` with wildcards to list all files that end in a digit between 3 and 5 (including 3 and 5) ?
3. How will you use `ls` with wildcards to list all files that contain a digit between 3 and 5 (including 3 and 5) ?
4. How will you use `ls` with wildcards to list all files that have names that are exactly three characters long?
5. Assume that a directory `junk` has read permission alone set for others, and has a child directory `junk2` which has execute and read permission for others. `junk2` contains a file `file1` which has read permission set for others. (a) Can others read the contents of `file1`? (b) Can others perform `ls` on `junk2` to see `file1` listed? Briefly justify your answers.

Submission instructions

1. Name the file containing your answer to part 2 as `HW1.part2.pdf` (the extension may be different for other formats, such as `.doc` for a word document – please use some commonly available format).
2. Copy the above file to the `HW1` directory.
3. In the parent directory of the `HW1` directory, enter the following: `tar cvf HW1.tar HW1`

4. A file called `HW1.tar` will now be created. You should transfer `HW1.tar` to the machine where you are running your web browser, in order to submit that it. You can check if `HW1.tar` correct by doing the following on a Unix machine. (This step is optional.) Copy `HW1.tar` to some other directory and then execute the following command in that directory: `tar xvf HW1.tar`. You should get a copy of your original directories and files, in addition to the file for your solution to part 2.
5. Login in to blackboard and select the *Intro. to Unix* course.
6. Click on *Student Tools* (alternatively, select *Dropbox* and skip step 7)
7. Click on *Digital Dropbox*
8. Click on *Add File*
9. In the field *Name*, write your name and the number of the assignment
10. In the filed *File*, write the path to your file `HW1.tar` (or browse it using the browse button)
11. Write comments in the *comments* field if you need to
12. Click *Submit* and then Click *OK* in the popup window
13. Click on *OK* in the receipt page
14. Click on *Send File*
15. On the *Select Field* list, select the file you need to send
16. Click on *Submit*
17. Click *OK* on the receipt page

Note: If you don't do steps 14 – 17, then your file will not be sent! *We strongly suggest that you submit the assignment at least a day in advance, so that you will have time to fix any problems that arise. Also, please do not modify any of your original homework files, so that we will have a correct time stamp to look at, if there are problems with your submission.*