

Spring 2005 – CS 344 UNIX Operating System Fundamentals  
Homework-4

150 points. Individual work only. Due May 2, 2005 1:25pm.

1. Write a bash shell script (myutil) that will perform the following operations based on the options provided: [100 points]
  - a. myutil -t ndays -c archivename.tar.gz directory filepattern  
Create a compressed archive of all the files that contain “filepattern” as part of their filename (e.g., \*.java, \*.o) . The directory specified by the “directory” argument is used as the starting directory for the search. If the -t option is specified then the files not accessed for more than “ndays” will be selected. If the -t option is not specified then all files that match the file pattern must be included in the archive. Note that the archive must preserve the directory structure.
  - b. myutil -t ndays -d directory filepattern  
Delete all files that have filenames that match “filepattern” argument starting from the directory specified by the directory argument. If -t option is provided then files not accessed for more than ndays will be deleted, if the option is not specified then all filename that contain the specified filepattern will be deleted.
  - c. myutil -f directory patternstring  
List all files that contain the string “patternstring.” You should start with the directory specified by the directory argument for the search. The filename should be listed only once when if there are multiple instances of the “patternstring.”
2. Write a bash shell script that will compute the final class grade assuming that the quiz scores count towards 40% of the final grade and homework scores count towards 60% of the final grade. Use the following tab separated data (save this to a file called “scoresheet”) and note that all scores are for a maximum of 100 points. Include additional columns for the total quiz score, total homework score, total score, and the final grade and write the output to a file “scoresheet.final.” To determine the final grade use the following conditions: [50 points]

Final Score	Grade
>=80	A
>=70 and < 80	B
>=60 and < 70	C
>=50 and < 60	D
< 50	F

Code	Quiz1	HW1	Quiz2	HW2	Quiz3	HW3	Quiz4	HW4	Quiz5	HW5		
7874	David A. Boercker		11	60	11	100	0	56	10	78	96	78
2134	Lyle C. Boercker		45	90	40	36	88	90	55	77	23	30
6134	Orin C. Braucher		0	34	89	80	89	55	20	78	56	34
4532	Marjorie M. Conrad		55	11	50	17	99	81	80	32	78	77
1234	Dyllis B. Harvey		22	52	70	70	100	100	77	78	45	34
9893	Peter M. Kinderfield		89	34	50	9	91	77	60	78	68	20

**Sample Output:**

Code	Quiz1	HW1	Quiz2	HW2	Quiz3	HW3	Quiz4	HW4	Quiz5	HW5	QuizTotal		
	HWTotal		FinalScore		Grade								
7874	David A. Boercker		11	60	11	100	0	56	10	78	96	78	372
	128	45.12	F										

**Submission Guidelines:**

Please email the script developed to solve the above questions to ([puri@cis.uab.edu](mailto:puri@cis.uab.edu)) and turn in a printed copy of the scripts along with the input used to test these scripts and the output obtained.