Operating System Lab

Name: Tonmoy Biswas

Roll No: 002110501133

Class: BCSE 3rd Year 1st Sem

Section: A3

Assignment No: 1

1. Write a shell script that has 2 user created variables, uv1 and uv2. Ask for the values of the variables from the user and take in any values (real/integer/character) for the 2 variables. Test the program for different types of uv1 and uv2. (a) Print them as: (i) value of uv1 followed by value of uv2 separated by a comma and (ii) value of uv2 followed by value of uv1 separated by the word “and”. (b) Print the variables in reverse order [If uv1 is 1234, then output should be 4321]

2. Write a shell script to count the number of lines in a file. Test if the file is present. If not, create and write.

3. Write a shell script that counts the number of ordinary files (not directories) in the current working directory and its sub-directories. Repeat the count of files including the subdirectories that the current working directory has.

4. Write a shell program to duplicate the UNIX rm command with the following features: a. Instead of deleting the files, it will move them to a my-deleted-files directory. If the file already exists in the my-deleted-files directory, then the existing file (in the my-deletedfiles) will have the version number zero (0) appended to it and the newly deleted file will have version number one (1) appended to it. Go on incrementing the version nos., if required. b. The command will have a switch -c that will clear the entire my-deleted-files directory after asking for confirmation.

5. Write a script called birthday\_match.sh that takes two birthdays of the form DD/MM/YYYY (e.g., 15/05/2000) and returns whether there is a match if the two people were born on the same day of the week (e.g., Friday). And then find out the age/s in years/months/days.

6. Write a shell script that accepts a file name as an input and performs the following activities on the given file. The program asks for a string of characters (that is, any word) to be provided by the user. The file will be searched to find whether it contains the given word. If the file contains the given word, the program will display (a) the number of occurrences of the word. The program is also required to display (b) the line number in which the word has occurred and no. of times the word has occurred in that line (Note: the word may occur more than once in a given line). If the file does not contain the word, an appropriate error message will be displayed.

7. Extend the shell script written in (6) to perform the following task: User is asked to enter two different patterns or words. The first pattern will have to be matched with the contents of the file and replaced by the second pattern if a match occurs. If the first pattern does not occur in the file, an appropriate error message will be displayed.