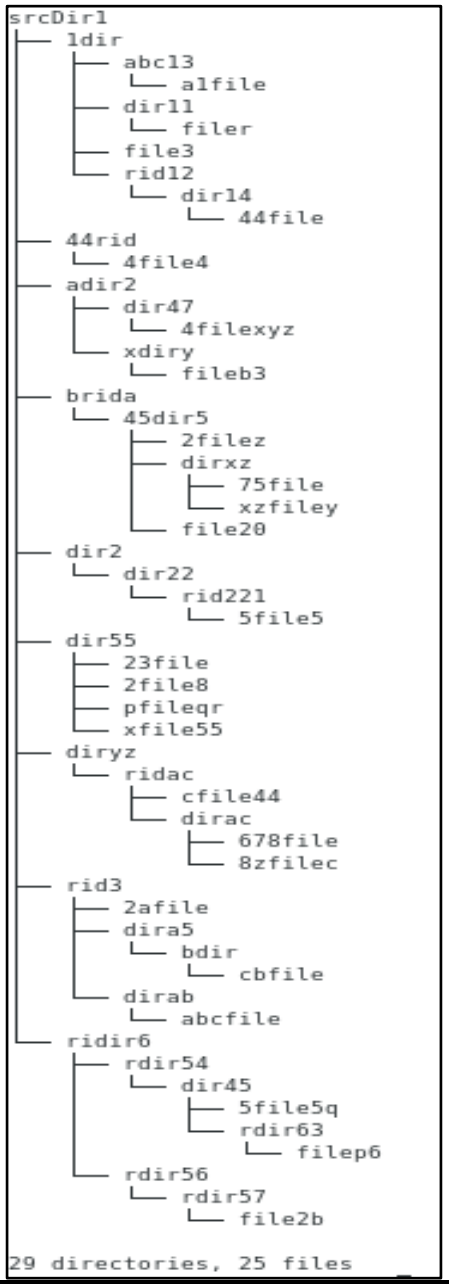
MISS EXAM

Name		**User-ID**	
Date		**Subject**	**UNIX**
Marks	50	**Duration**	3hrs

- Write your Name and Date on every answer sheet.
- Write scripts on the answer sheet before logout.
- Exam login path: /home/VLSI/missad02/USERS/EXAM/**exam_id**
- Change to Exam login path.

Q1). We have a source directory ***srcDir1***, in which there are multiple sub-directories of various depths. In those directories, there are files which may contain valid numbers.

Example directory structure is shown in the image below. You may look into the directory structure of ***srcDir1*** in your EXAM login ID.



We need to develop C-shell script which will work on above source directory and produces new database in destination directory as described below

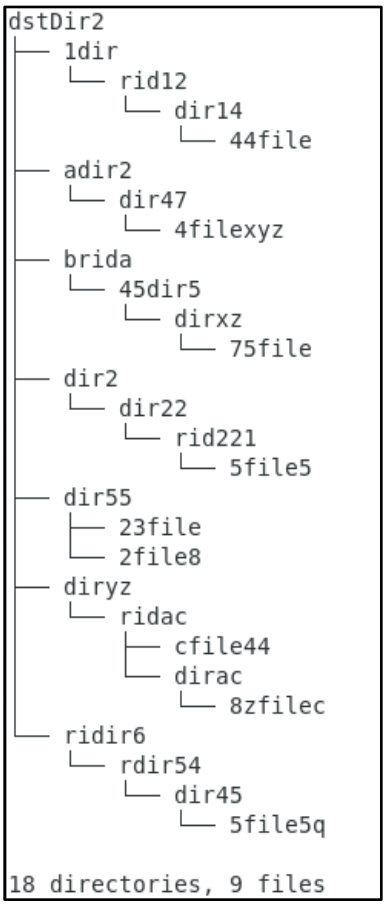
1. C-shell script name: ***fileFinder.sh***
2. Script has two command line arguments. The first one is the source directory name, and the second one is destination directory name which are **srcDir1** & ***dstDir1*** respectively.
3. Script should check if two command line arguments are provided or not. If two command line arguments are not provided, then it should stop executing script normally and indicate to the user that required number of command line arguments are not provided. If more than two command line arguments are provided, then it should continue executing script and provide warning to the user by notifying that only first two arguments are considered for execution.
4. Check for existence of source directory and if it is directory or file. If not present or if it is file, notify the user and stop executing the script.
5. Check for existence of destination directory. If it does not exist, create a new one. If it is already present, then get approval (**Y**/**N**) from user whether to overwrite the directory or not. If user provides **N** response, then exit the script normally else removes the existing destination directory and creates new one.
6. Then, copy the files along with its parent directories from source directory to destination directory. Copying should be based on following criteria:
    a. The **file** should contain at least one **valid number**. Examples of valid numbers are shown in the figure below.

123	Integer number with 3 digits
123.4567	Real number with 3-digits in whole number & 4-Digits in fractional portion.
1234.0	Real number with 4-digits in whole number and 1-digit in fractional portion.
4	Integer number with 1-digit
4567	Integer number with 4-digits
6.0	Real number with 1-digit in whole number and 1-digit in fractional portion.
78901	Integer number with 5-Digits
56	Integer number with 2-Digits
3.456	Real number with 1-digit in whole number and 3-digits in fractional portion.
This line doesn't contain any numbers	
10. is not a valid number	
.10 is not a valid number	
100e-10	Real number in scientific notation
100.0e-01	Real number in scientific notation
100.123e+1	Real number in scientific notation
123.e-	Invalid number
123.e+	Invalid number
.e-12	Invalid number

    b. The name of the **file** should start or/and end with an integer.
    c. At least one of its parent directories of the **file** should start with "**dir**".
7. Command execution should be as shown below. Command should be executed from /home/VLSI/missad02/USERS/EXAM/**exam_id**

%fileFinder ./srcDir1 ./dstDir1

8. After successful execution of above command destination directory dstDir1 should contain data as shown below



Note: To see the list of a directory use "**tree**" command.

********************************ALL THE BEST********************************