SCR2043 OPERATING SYSTEMS

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Section	: 02	

GROUP 1

Instruction: Please do the following activities in sequence. Once completed, ask your lecturer/instructor to verify your results by putting his / her initial.
Please make sure the answer always starts **with a low capital letter**.

ACTIVITY 1 : BASIC LINUX COMMANDS

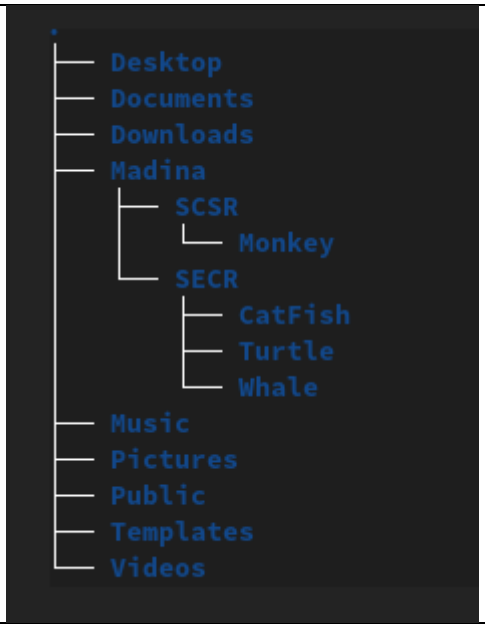
Write down instructions under the command column.
Each answer is given 1 mark.
You need a terminal window to enter all your commands in sequence.

	Task	Command
1	List the content of the directory	`ls`
2	Create a directory with your name.	`mkdir Madina`
3	Change the working directory to the directory created in previous Task 2.	`cd Madina`
4	To display your current directory now	`pwd`

5	Making 3 subdirectories in your current directory with the given name;
	SECR
	SCSR
	SECRH
		`mkdir SECR`
		`mkdir SCSR`
		`mkdir SECRH`

6	List all created directories available.	`ls`
7	Create a directory (`Fish`) under one of those directories created in Task 5 without changing the working directory.	`mkdir SECR/Fish`
8	Create a directory (`Monkey`) under the other one of those directories created in Task 5 without changing the working directory.	`mkdir SCSR/Monkey`
9	Change working directory to `Fish`	`cd SECR/Fish`
10	Create a new directory `Turtle` under the same directory as `Fish`.	`mkdir ../Turtle`
11	List all directories and subdirectories under the parent of the current	`ls -R ../../`

	working directory (Task 2).	
12	From the current working directory, create a new directory `Whale` under the same directory as `Fish`	`mkdir ../Whale`
13	Rename `Fish` into another new name as `CatFish` .	`cd ..` `mv Fish CatFish`
14	Remove the directories with no sub-directory created in task 5.	`cd ..` `rmdir SECRH`
pi15	Return back to `/home` directory	`cd`
16	Complete the file structure of the entire tasks done. (Hint: use `tree` command) [2 marks]	



ATIVITY 2 : WRITING A PROGRAM / SOURCE CODE

This activity continuous from the previous activity 1.
Write the command in the provided boxes.
Each answer is given 1 mark.

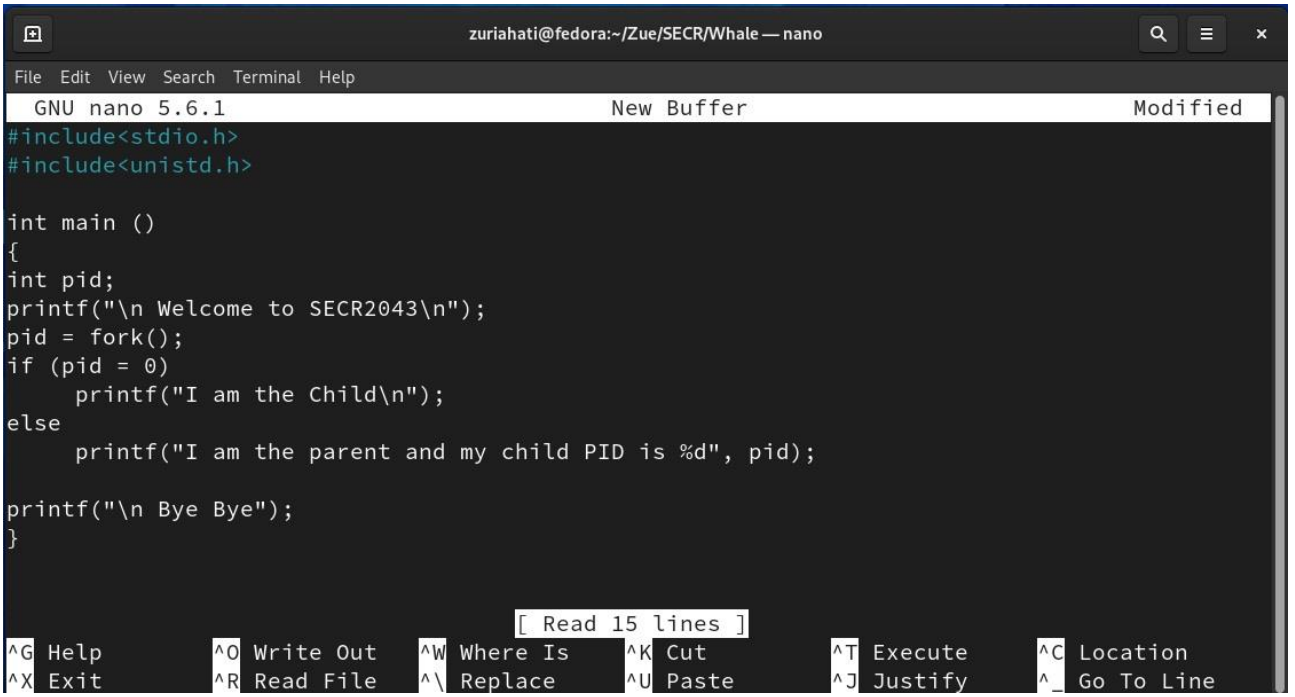
1. Continuing from task (13) in activity 1, go directly to your `Whale` directory as your working directory.

   Command: `cd Madina/SECR/Whale`

2. By using a terminal, open a simple text editor provided in Ubuntu OS by typing the command either `pico` or `nano`. Create a file by using a name of `fork1.c`.

   Command: `nano fork1.c`

3. Type the following simple source code correctly. Use the menu given by the editor to do your task.



Source: http://www.osix.net/modules/article/?id=641

4. Once you finished typing the source code, save the file using menu `WriteOut` with control button.

5. Make a copy of the file in the same directory with name `fork2.c`.

   Command: `cp fork1.c fork2.c`

6. Make another copy of the `fork2.c` file into `Monkey` directory with name `fork3.c`.

   Command: `cp fork2.c ../../SCSR/Monkey/fork3.c`

7. Move the `fork2.c` file in current directory into `CatFish` directory.

   Command: `mv fork2.c ../CatFish`

8. View the content of the file `fork1.c` without using the editor.

   Command: `cat fork1.c`

ATIVITY 3 : COMPILING THE PROGRAM / SOURCE CODE

This activity continuous from the previous activity 2.
Write the command in the provided boxes. This activity will show the process of compiling the source code written in C programming language.
Each answer is given 1 mark.

1. By using a terminal, change your working directory to `Monkey` directory. You need to compile the `fork3.c` file in that directory.

   Command:
   ```
   cd
   cd Madina/SCSR/Monkey
   ```

2. To compile the source code, you need a compiling command for C programming, which is `gcc`. Compile the `fork3.c` file using that command.

   Command: `gcc fork3.c`

3. Execute the output file generated in the directory. If you didn't specify the output, a default filename of `a.out` will be produced

   Command: `./a.out`

4. Re-compile the `fork3.c`, and do specify the output filename in the command as `fork3result` (use `-o` option).

   Command: `gcc fork3.c -o fork3result`

5. Execute the specified output file generated in previous step.

   Command: `./fork3result`

6. From current working directory, compile the `fork1.c` file in `Whale` directory. Do specify the output filename as `fork1result`.

   Command: `gcc fork1.c -o fork1result`

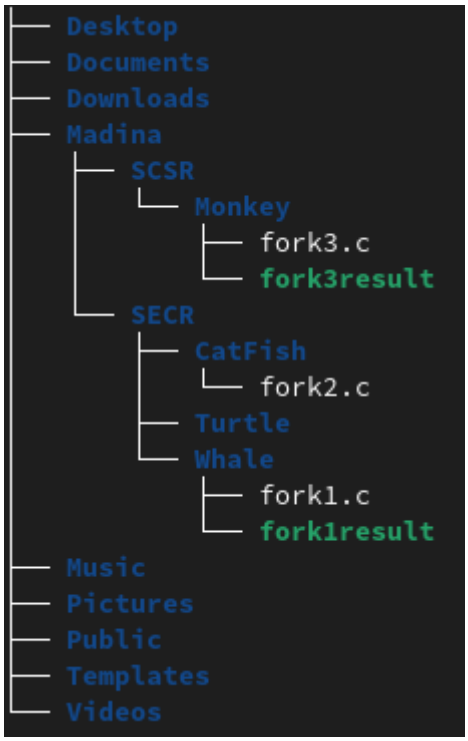
7. Execute the output file generated (`fork1result`.)

   Command: `./fork1result`

8. Remove the `a.out` file in related directory.

Command:	`cd`
	`cd Madina/SCSR/Monkey`
	`rm a.out`

9. Redraw the final directories and files generated. (Hint: use `tree` command) [2 marks]



.End of Lab1