Example: \$13 / applications will display all the files and folders stored in the applications folder.

3. read: - read command in Linux system is used to read from a file descriptor. This command read up the total number of bytes from the specified file descriptor into the buffer



syntax: \$ read.

Example: read command without any option: The read command without any asks for the user's input and exit once the user provides some input.

4. cat: - Cat (concatenate) command is very frequently used in Linux.

It reads data from the file and gives their content as output.

It can be used to cut parts of a line by byte position, character and field.

It helps us to create, view, concatenate files.

Syntax: - \$ cat filename.

It will show content of given filename.

5. touch :- It is used to create the file with content.

Syntax :- \$ touch file_name.

Example :- touch file1.

6. test: — A test command is used to test the validity of command.

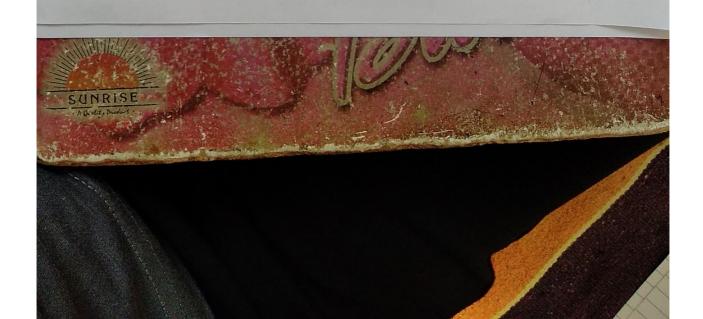
It checks whether the command/expression is true or false.

Syntax: \$ test [expression]

Example: test "variable1" operator "variable2".

7. loops: - The for loop using in and list of values.

This for loop contains a number of variables in
the list and will execute for each item in
the list.



						1				
Syntax ?— \$ CP { File nance } Zeal Education Institutes	12. cp :- This commands copies Files and directories. A copy of the Files / directory copies remains in the	11. sort 2— This command sort the results of a search either alphabatically or numeric files, file contents and directories can be sorted using this command.	Syntax:- \$ mkdir directory-name.	10. mkdir :- This command is used to create a new	Syntax :- \$ cd / pathname /	9. cd :- change to a directory. This command is used to change the current working directory of the user.	Syntax:- \$ pwd	8. Pwd :- This command displays the currend working directory of the terminal.	do echo "statement" done.	syntax :- For varname in list

directory to another. The directory once moved is deleted from the working directory This command moves Riles and directory from one from the working directory.

Syntax :- \$ mv {Filename} | pathname.

14. grep e- This command string | word in a tent file. This is similar to "ctr1+F", executed via a CLI. is used to search a particular

Syntax :-\$ grep < flag or element _to_search> { filename }

- sed command in Linux/Unix Stands For stream editor and it can perform lots of Functions on file like searching, find and replace, insertion or deletion.

Syntax :- \$ sed options ... [SCRIPT] [INPUTFILE ...]

Example :- Consider the below text file as an input.
\$ cat > geekfile.txt.

Reflacing or substituting string: - sed command is mostly used to replace the text in a Rile.

word "unix" with "linux" in the Pile.

sed 's lunix / linux / geekPile. txt.





Aim: Write a program to implement an address hook with options given below: -9) Create address book b) View address book c) Insert a record Delete a record e) Modify a record. F) Exit Theory : Data : data is collection of facts, such as numbers, words, measurements, observations, or just descriptions of things. Database: A large amount of data that is stored in a computer and can easily be used , added , stored and accessed electronically. commands -CREATE Command :- This command is used to create database. syntax: - CREATE DATABASE dbname; SHOW: This command is used to show all available databases.

Syntax :- SHOW DATABASES;

Zeal Education Institutes



ZEAL

3. CREATE TABLE: This statement is used to create a new table in database.

Syntax: - CREATE TABLE table_name(

column1 datatype,

column2 datatype,

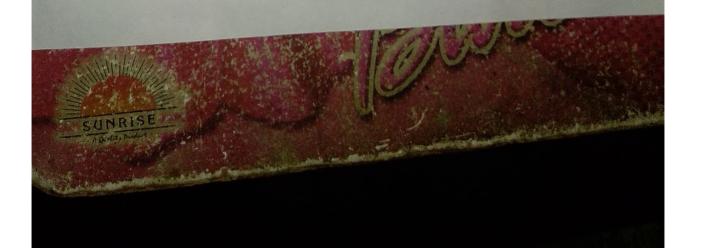
column3 datatype,

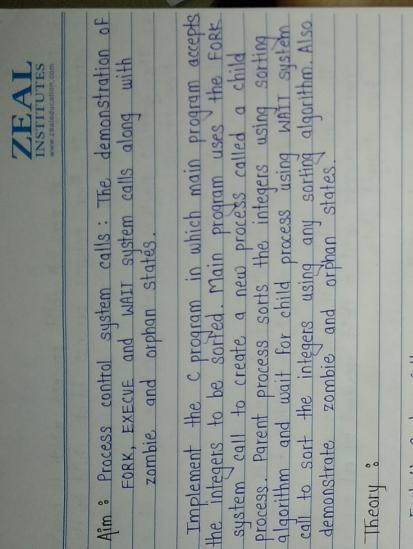
);

- 4. Insert INTO :- This statement is used to insert new records in a table
 - Syntax :- INSERT INTO table_name (column1, column2, column3, ...)
 VALUES (value1, value2, value3, ...);
- 5. DELETE: This statement is used to delete existing records in table.
- syntax: DELETE FROM table-name WHERE condition;
- 6. UPDATE :- The update statement is used to modify
 the existing records in a table.

 Syntax: UPDATE table_name SET column1 = value1, ...

 WHERE condition;





/сасниа

Fork () System Call -

- without taking any arguments. Fork() system call creates It return process Fork() system call creats the processes. the new process. pi
- This newly created process then is the child process of the caller.
- Both parent and child executes the next instruction Following system call. Fork
- by Fork() indicates creation of The return of negative value child is unsuccessful

Zeal Education Institutes



- 5. Fork() returns of zero toff child process which is newly created . It then returns process id of child to its parent which is an integer.
 - The getpid() function is used to retrieve process id of process.

Mail) System Call -

- 1. The wait() system call suspend execution of the current process until one of its children terminates.
- urrent process until a child specified by pid argument has changed state. The waitpide system call suspends execution of the current

execve() System (all -

- execve() executes the program pointed by Filename. Filename must be either a binary executable, or a script starting with a line of the form "#1 interpreter [arg]".
- execve() does not return on success, and the text, data, bss, and stack of the calling process are overwritten by that of the program loaded.



zombie Process:-

- 1. zombie process or defunct process is a process that has completely execution but still has an entry in the process table.
- 2. It is a process in the "terminated state".
- 3. This process occurs for child processes, where the entry is still needed to allow the parent process to read its child's exist status.
- 4. Onece the exit status is read via the wait system call, the zombie's entry is removed from the process table and it is said to be "reaped".
- 5. A child process always first becomes a zombie before being removed from the resource table.

Orphan Process: -

- 2. An orphan process is a computer process whose parent process has finished or terminated, through it remains tunning itself.
- 2. Orphan process is the process for which parent is dead.
 Suppose a program forks a new child process and while



the child is performing some work, It's parent dies. This child process then becomes orphan.

- 3. Orphan process doesn't remain orphan for a long time because after its parent death, the child process is adopted by the init process which we already know is the parent of all the processes.
- 4. When the child process is adopted by the init process then its ppid value becomes 1, which is the pid for init process.

Conclusion % -

Hence, we studied to implement C program using Fork() system call and demonstrate zombie and ophan state.