

1. Normal Mode - always in non-canonical mode

Basic Tricks

1) how to clear the terminal

<https://stackoverflow.com/questions/4062045/clearing-terminal-in-linux-with-c-code>

```
std::cout << "\033[H\033[2J\033[3J" ;
```

2) how to set the cursor in the terminal using c++

<https://stackoverflow.com/questions/10401724/move-text-cursor-to-particular-screen-coordinate>

```
#define gotoxy(x,y) printf("\033[%d;%dH", (y), (x))
```

3) how to resize the terminal using c++

<https://stackoverflow.com/questions/42169105/programmatically-expand-terminal-to-a-specific-size>

```
# set terminal width to 50, height to 100
```

```
cout << "\e[8;50;100t";
```

4) how to recognise up, down, left, right keypresses

<https://tldp.org/HOWTO/Bash-Prompt-HOWTO/x361.html>

<https://stackoverflow.com/questions/57412624/getchar-avoid-escape-sequences> - kbecs fn

```
Int main()
```

```
{
```

- Get current working directory and push it into stack(do this in left stack)

<https://www.delftstack.com/howto/cpp/get-current-directory-cpp/>

```
char tmp[256];
getcwd(tmp, 256);
String str <- tmp;
```

Note: for a lot of system call require char array or ptr to a char arr and don't work with string class so u have to check manual page for that and create a temp char array to carry out the task

- Now we will need stack because we want to keep track of all the path. Will be useful in moving back and forth in directory
- Call START_NORMAL_MODE();

```
}
```

```
Void START_NORMAL_MODE(string which is stk.top-> path/dir)
```

```
{
```

```
    GET_FILES(dir) //Get all files/ folders everything in that directory and store it in a vector
    (set window size and set start and end)
    PRINT_K_FILES_WITH_METADATA(file vector)
    ENABLE_SCROLLING()
```

```
}
```

```
void GET_FILES(dir)
```

```
{
```

- Clear_the_clutter: clear all related file vectors
- Get files and check if it is a file or a dir: this is useful when u enter press a row

<https://stackoverflow.com/questions/612097/how-can-i-get-the-list-of-files-in-a-directory-using-c-or-c>

<https://stackoverflow.com/questions/146924/how-can-i-tell-if-a-given-path-is-a-directory-or-a-file-c-c>

```
Void PRINT_K_FILES_WITH_METADATA(start, end)
```

```
{
```

```
    CLEAR_SCREEN
```

```
    SET_CURSOR_0_0
```

```
    for(start -> end)
```

```
    {
```

```
        PRINT_DETAIL(vect[i]);
```

```
    }
```

```
}
```

```
Void ENABLE_SCROLLING( list_start, list_end, start, end) // 0, 100 , 21, 40
```

```
{
```

```
    SET_CURSOR_0_0
```

```
    Int CURSOR_TRACKER=0; (as we are at first row)
```

<https://stackoverflow.com/questions/57412624/getchar-avoid-escape-sequences>

```
    while(true)
```

* get KEY_PRESS: up, down (up and down to be used for navigation in current visible displayed files only)

* if up and check we are not on first row:

```
        CURSOR_UP
```

```

    CURSOR_TRACKER--;
* if down and check we are not on last row
    CURSOR_DOWN
    CURSOR_TRACKER++;
* if CURSOR_TRACKER==start && KEY_PRESS==k
    Start--;
    End--;
    CURSOR_TRACKER--;
    PRINT_K_FILES_WITH_METADATA(start, end)
* if CURSOR_TRACKER==end && KEY_PRESS==l
    Start++;
    End++;
    CURSOR_TRACKER++;
    PRINT_K_FILES_WITH_METADATA(start, end)
*if KEY_PRESS==ENTER
    Check if file
        OPEN_FILE(vect[CURSOR_TRACKER])

```

<https://stackoverflow.com/questions/21799373/open-html-file-in-the-directory-with-c>

```

    Check if dir
        Push dir into stack
        START_NORMAL_MODE(stk.top());
*if KEY_PRESS==BACKSPACE
    Store stk.top() -> string
    CLEAR_LSTK and CLEAR_RSTK

    /home/A/B -> /home/A/
    Push this in left stack- /home/A/
    START_NORMAL_MODE(stk.top());
*if KEY_PRESS==LEFT_ARROW
    if(left stk.size()>1)
    {
        Right stk.push() < --- Left stk.pop()
        START_NORMAL_MODE(leftstk.top())
    }
*if KEY_PRESS==RIGHT_ARROW
    if(rightstk.size()>1)
    {
        Left stk.push() < --- Right stk.pop()
        START_NORMAL_MODE(rightstk.top())
    }
*if KEY_PRESS==HOME

```

```
*if KEY_PRESS==HOME
{
    leftstack.push(/home/);
    START_NORMAL_MODE(leftstk.top())
}
*if KEY_PRESS==COLON
    START_COMMAND_MODE();
|
}
```