

Week 2 - Assignment - Answer Explanations - Q1.1

Q1.1) Breakdown

```
progress_bar(){
    local count=0
    percent=$1
    limit=$(expr $percent / 2)
    while [ $count -le $limit ]
    do
        echo -ne "+"
        let count=count+1
    done
    while [ $count -le 50 ]
    do
        echo -ne ' .'
        let count=count+1
    done
    echo -ne "    [ $percent % ]\r"
    #echo -ne "\n"
```

Here, I am defining a function `progress_bar()` to create a live progress-bar in the terminal.

- I am taking the total percentage (`percent`) to draw (say 46%, then the bar would be drawn till 45%) as parameter.
- I have taken the length of the bar as 50 characters, hence, I am dividing the percent by 2 and saving the resulting expression in `limit` (using `expr $percent / 2`, which gives an integer value)
- First while loop -
 - Say, `percent = 45` => `limit = 22`. I am iterating till the local var. `count` <= `limit` and while iterating, I am printing the character `'+'` (for the progress)
- Second while loop -
 - To create a nice effect, I am filling the rest of the bar (which doesn't have progress) with `'.'`. (So, here, `100-22 = 78%` of the bar would be of `'.'`)
- `echo -ne " [$percent %]\r"` here, I am doing carriage return `\r` so that, every the time the loop iterates and `count` gets updated, the bar also updates by increasing the no. of `'+'`s

Week 2 - Assignment - Answer Explanations - Q1.1

```
#start of file manager tasks
(echo './' > dot.txt) #task1
percent=2
progress_bar "$percent"
sleep 1
((tr "[/]" "&" < path.txt) > pathi.txt) #task2
let percent=percent+6
progress_bar "$percent"
sleep 1
```

- This is the start of my old code (week 1). For each of the commands in this code, I am calling the `progress_bar` function along with the `percent` parameter (that I am updating as go from one command to the next)
- That's all.

```
rsgr@GokulsPavilion:~/lukog/week2$ ls -l
total 20
-rw-r--r-- 1 rsgr rsgr 2213 Jun 10 23:52 ascii-art.sh
-rwxr-xr-x 1 rsgr rsgr 2225 Jun 10 19:12 basic-file.sh
-rw-r--r-- 1 rsgr rsgr 80 Jun 11 00:26 path.txt
-rwxr-xr-x 1 rsgr rsgr 3538 Jun 10 19:13 q1.2.sh
-rw-r--r-- 1 rsgr rsgr 2805 Jun 10 23:55 the-valor.sh
rsgr@GokulsPavilion:~/lukog/week2$
```

```
rsgr@GokulsPavilion:~/lukog/week2$ bash basic-file.sh
Progress made so far:
-----
+++++. . . . . [ 8 % ]
```

```
rsgr@GokulsPavilion:~/lukog/week2$ bash basic-file.sh
Progress made so far:
-----
[#####] [ 90 % ]
```

Week 2 - Assignment - Answer Explanations - Q1.1

```
● rsgr@GokulsPavilion:~/lukog/week2$ bash basic-file.sh
```

```
Progress made so far:
```

```
-----  
+++++ [ 100 % ]  
-----
```

```
All tasks completed.
```

```
● rsgr@GokulsPavilion:~/lukog/week2$ ls -l
```

```
total 32
```

```
-rw-r--r-- 1 rsgr rsgr 2213 Jun 10 23:52 ascii-art.sh  
-rwxr-xr-x 1 rsgr rsgr 2225 Jun 10 19:12 basic-file.sh  
drwxr-xr-x 2 rsgr rsgr 4096 Jun 11 00:28 end  
drwxr-xr-x 2 rsgr rsgr 4096 Jun 11 00:28 ends  
-rw-r--r-- 1 rsgr rsgr 80 Jun 11 00:26 path.txt  
-rwxr-xr-x 1 rsgr rsgr 3538 Jun 10 19:13 q1.2.sh  
-rw-r--r-- 1 rsgr rsgr 2805 Jun 10 23:55 the-valor.sh  
drwxr-xr-x 3 rsgr rsgr 4096 Jun 11 00:27 this
```