

Experiment 1

Ans: Introduction to linux OS (Ubuntu 16.04 LTS) :
Terminal & its basis

Theory

What is Linux?

- Linux is a kernel created by Linus Torvalds as an open source project.
- This term is often used for OS's that use the same kernel.
- Example: Fedora, Linux mint, Ubuntu, Arch.

What is linux shell or terminal?

- Shell is a program that allows the user to access the terminal.
- Terminal is used to run command.

Linux Commands.

1. pwd: print working directory
2. ls: list all files in current directory
3. nano: run the program nano that is a unix command line text editor tool
4. cd: Change directory
5. mkdir: make directory
6. rm: remove file
7. rmdir: remove directory

- 8 touch: used to make a file
- 9 man: opens linux manual
- 10 mv: move file/directory
- 11 echo: print a string
- 12 cp: copy file
- 13 sudo: super user do
- 14 cat: reads file sequentially and writing them to a standard output.
- 15 wait: add a sleep.
- 16 help: ~~add~~ display all help text
- 17 time: display current time
- 18 apt-get: used to install program
- 19 tar: tape archiving.
- 20 chmod: change modification permissions
- 21 shutdown: shutdown the system
- 22 kill: kill a program
- 23 reboot: restart a ~~pithe~~ system
- 24 du: disk usage
- 25 logout: logout from logged in user
- 26 alias: set a shortcut
- 27 exit: exit from a program
- 28 ~~arping~~: checks the ping for an IP
- 29 sleep: sleep the program
- 30 ifconfig: display network interface configuration for Unix like OS

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Experiment 2

Aim: WAP Implement CPU scheduling using First come First serve (FCFS)

Theory

FCFS: It is a scheduling system that only sees the arrival order of each process & Evaluates each process & then goes to the next process

Burst time: ^{CPU} The time required by the process

Waiting Time: The time each process needs to wait before running

Turn Around Time: The time needed from the process needed from entering to finishing

Code

Output

Number of process: 2

Arrival Burst Time:

5

5

Signature
20/1/15

Sno.	Burst Time	Waiting Time	Turn Around Time
1	5	0	5
2	5	5	10

Avg Turn Around G.O

Avg Wait Time 2.0

CODE

```
class Process():
```

```
    def __init__(self, burstTime):
```

```
        self.burstTime = burstTime
```

```
        self.waitingTime = 0
```

```
        self.turnAroundTime = 0
```

```
def evaluate(Processor):
```

```
    time = 0
```

```
    for i in range(len(Processor)):
```

```
        if i == 0:
```

```
            Processor[i].waitingTime = time
```

```
            Processor[i].turnAroundTime = Processor[i].waitingTime + Processor[i].burstTime
```

```
            time = time + Processor[i].burstTime
```

```
def display(Processor):
```

```
    print("Sno. BurstTime WaitingTime TurnAroundTime")
```

```
    a = 0
```

```
    for process in Processor:
```

```
        a = a + 1
```

```
        print("{}\t{}\t{}\t{}".format(a, process.burstTime, process.waitingTime, process.turnAroundTime))
```

```
def avgTTWT(Processor):
```

```
    avgWT = 0
```

```
    avgTT = 0
```

```
    for process in Processor:
```

```
        avgWT = avgWT + process.waitingTime
```

```
        avgTT = avgTT + process.turnAroundTime
```

```
    print("Avg WT: {} \n Avg TT: {}".format(avgWT, avgTT))
```

```
if __name__ == "__main__":
```

```
    print("Enter number of processes : ")
```

```
    number = int(input())
```

```
    Processor = []
```

```
    for i in range(number):
```

```
        Processor.append(Process(int(input())))
```

```
    evaluate(Processor)
```

```
    display(Processor)
```

```
    avgTTWT(Processor)
```