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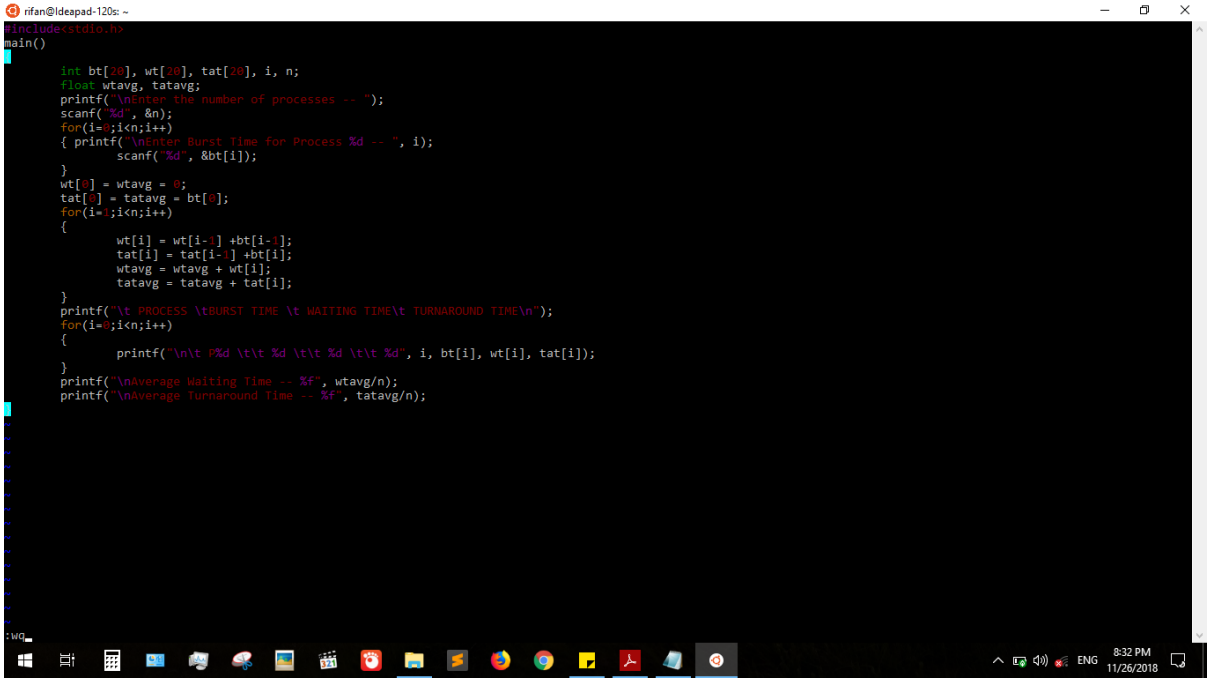
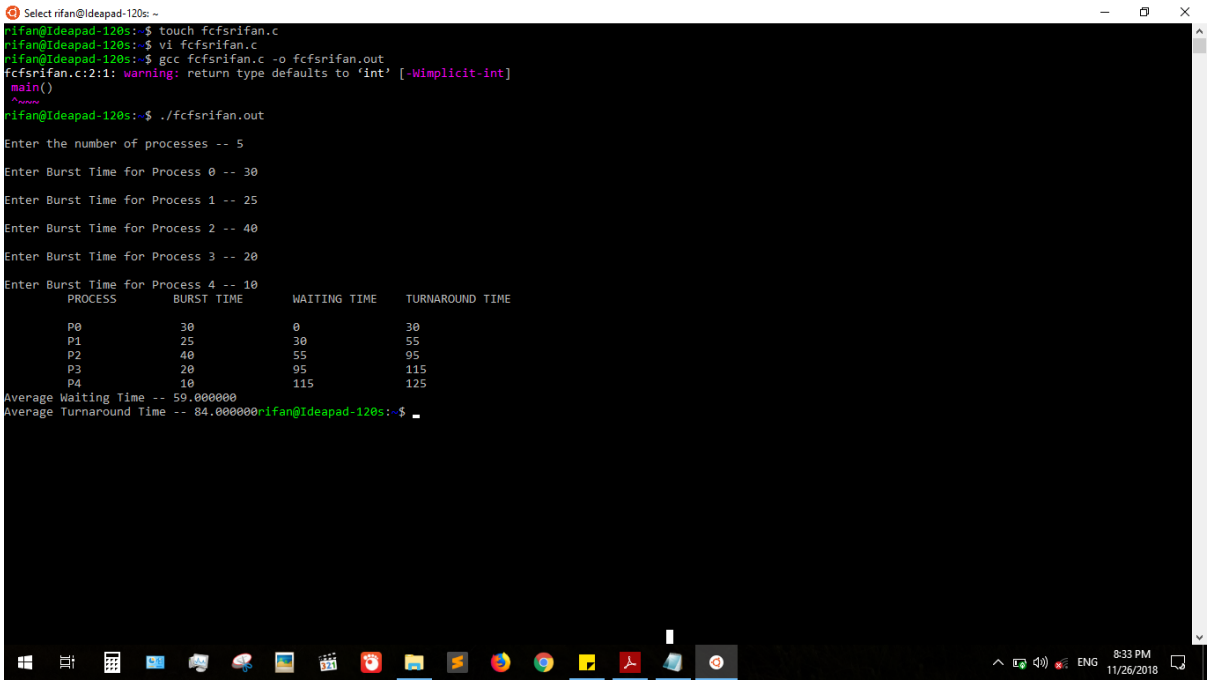
NIM : 17.01.53.2021

FIRST COME FIRST SERVE (FCFS)





SORT JOB FIRST (SJF)

rifan@Ideapad-120s: ~

```
	int p[20], bt[20], wt[20], tat[20], i, k, n, temp;
	float wtavg, tatavg;
	printf("\nenter the number of processes -- ");
	scanf("%d", &n);
	for(i=0;i<n;i++)
	{
		p[i]=i;
		printf("Enter Burst Time for Process %d -- ", i);
		scanf("%d", &bt[i]);
	}
	for(i=0;i<n;i++)
	{
		for(k=i+1;k<n;k++)
		{
			if(bt[i]>bt[k])
			{
				temp=bt[i];
				bt[i]=bt[k];
				bt[k]=temp;
				temp=p[i];
				p[i]=p[k];
				p[k]=temp;
			}
			wt[0] = wtavg = 0;
			tat[0] = tatavg = bt[0];
		}
	}
			for(i=1;i<n;i++)
			{
				wt[i] = wt[i-1] +bt[i-1];
				tat[i] = tat[i-1] +bt[i];
				wtavg = wtavg + wt[i];
				tatavg = tatavg + tat[i];
			}
	printf("\n\t PROCESS \tBURST TIME \t WAITING TIME\t TURNAROUND TIME\n");
	for(i=0;i<n;i++)
	{
		printf("\n\t P%d \t\t %d \t\t %d \t\t %d", p[i], bt[i], wt[i], tat[i]);
	}
	printf("\nAverage Waiting Time -- %f", wtavg/n);
	printf("\nAverage Turnaround Time -- %f\n", tatavg/n);
:wq
```

rifan@Ideapad-120s: ~

```
rifan@Ideapad-120s:~$ vi sjfrifan.c
rifan@Ideapad-120s:~$ gcc sjfrifan.c -o sjfrifan.out
sjfrifan.c:2:1: warning: return type defaults to ‘int’ [-Wimplicit-int]
 main()
 ^~~~
rifan@Ideapad-120s:~$ ./sjfrifan.out

Enter the number of processes -- 7
Enter Burst Time for Process 0 -- 100
Enter Burst Time for Process 1 -- 50
Enter Burst Time for Process 2 -- 25
Enter Burst Time for Process 3 -- 75
Enter Burst Time for Process 4 -- 80
Enter Burst Time for Process 5 -- 10
Enter Burst Time for Process 6 -- 90

	 PROCESS	 BURST TIME	 WAITING TIME	 TURNAROUND TIME

	 P5		 10		 0		 10
	 P2		 25		 10		 35
	 P1		 50		 35		 85
	 P3		 75		 85		 160
	 P4		 80		 160		 240
	 P6		 90		 240		 330
	 P0		 100		 330		 430
Average Waiting Time -- 122.857140
Average Turnaround Time -- 184.285721
rifan@Ideapad-120s:~$
```

ROUND ROBIN

rifan@Ideapad-120s: ~

```
#include<stdio.h>
main()
{
        int i,j,n,bu[10],wa[10],tat[10],t,ct[10],max;
        float awt=0,att=0,temp=0;
        printf("Enter the no of processes -- ");
        scanf("%d",&n);
        for(i=0;i<n;i++)
        {
                printf("\nEnter Burst Time for process %d -- ", i+1);
                scanf("%d",&bu[i]);
                ct[i]=bu[i];
        }
        printf("\nEnter the size of time slice -- ");
        scanf("%d",&t);
        max=bu[0];
        for(i=1;i<n;i++) if(max<bu[i]) max=bu[i];
        for(j=0;j<(max/t)+1;j++)
                for(i=0;i<n;i++)
                        if(bu[i]!=0)
                                if(bu[i]<=t)
                                {
                                        tat[i]=temp+bu[i];
                                        temp=temp+bu[i];
                                        bu[i]=0; }
                                else { bu[i]=bu[i]-t;
                                        temp=temp+t;
                                }
        for(i=0;i<n;i++)
        {
                wa[i]=tat[i]-ct[i];
                att+=tat[i];
                awt+=wa[i];
        }
        printf("\nThe Average Turnaround time is -- %f",att/n);
        printf("\nThe Average Waiting time is -- %f ",awt/n);
        printf("\n\tPROCESS\t BURST TIME \t WAITING TIME\tTURNAROUND TIME\n");
        for(i=0;i<n;i++)
                printf("\t%d \t %d \t\t %d \t\t %d \n",i+1,ct[i],wa[i],tat[i]);
}
~
~
~
:wq
```

rifan@Ideapad-120s: ~

```
Enter Burst Time for Process 5 -- 10
Enter Burst Time for Process 6 -- 90

        PROCESS         BURST TIME       WAITING TIME     TURNAROUND TIME

        P5               10              0                10
        P2               25              10               35
        P1               50              35               85
        P3               75              85               160
        P4               80              160              240
        P6               90              240              330
        P0               100             330              430
Average Waiting Time -- 122.857140
Average Turnaround Time -- 184.285721
rifan@Ideapad-120s:~$ touch rrrifan.c
rifan@Ideapad-120s:~$ vi rrrifan.c
rifan@Ideapad-120s:~$ gcc rrrifan.c -o rrrifan.out
rrrifan.c:2:1: warning: return type defaults to ‘int’ [-Wimplicit-int]
 main()
 ^~~~
rifan@Ideapad-120s:~$ ./rrrifan.out
Enter the no of processes -- 5

Enter Burst Time for process 1 -- 100

Enter Burst Time for process 2 -- 50

Enter Burst Time for process 3 -- 20

Enter Burst Time for process 4 -- 60

Enter Burst Time for process 5 -- 80

Enter the size of time slice -- 10

The Average Turnaround time is -- 224.000000
The Average Waiting time is -- 162.000000
        PROCESS  BURST TIME      WAITING TIME    TURNAROUND TIME
        1        100             210             310
        2        50              150             200
        3        20              60              80
        4        60              180             240
        5        80              210             290
rifan@Ideapad-120s:~$
```