

Task-1:

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int
pn,pno[20],at[20],bt[20],i,tat[20],com[20],wt[20],temp,j,bttemp[20]={},temp1=0,temp2;
    float avg,avg2,avgtat,avgwt;
    printf("Number of process:\n");
    scanf("%d",&pn);
    printf("Enter the process no:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&pno[i]);
    printf("Process Arrival time:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&at[i]);
    printf("Process burst time:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&bt[i]);

    for(i=0;i<pn;i++)
    {
        for(j=i+1;j<pn;j++)
        {
            if(at[i]>at[j])
            {
                temp=at[i];
                at[i]=at[j];
                at[j]=temp;

                temp=pno[i];
                pno[i]=pno[j];
                pno[j]=temp;

                temp=bt[i];
                bt[i]=bt[j];
                bt[j]=temp;
            }
        }
    }

    temp2=1;
    temp1=bttemp[0]=bt[0]-1;
```

```
com[0]=at[0]+1;
```

```
for(i=1;i<pn;i++)  
{  
    bttemp[i]=bt[i];  
}
```

```
if(bttemp[0]>bttemp[1])  
{  
    bttemp[pn]=temp2;  
  
    for(i=0;i<=pn;i++)  
    {  
        for(j=i+1;j<=pn;j++)  
        {  
            if(bttemp[i]>bttemp[j])  
            {  
                temp=at[i];  
                at[i]=at[j];  
                at[j]=temp;  
  
                temp=pno[i];  
                pno[i]=pno[j];  
                pno[j]=temp;  
  
                temp=bttemp[i];  
                bttemp[i]=bttemp[j];  
                bttemp[j]=temp;  
            }  
        }  
    }  
}
```

```
pno[0]=bttemp[0];  
at[0]=bttemp[0];
```

```
if(at[1]<at[2])  
{  
    com[1]=com[0]+bttemp[1];
```

```

for(i=0;i<=pn;i++)
{
    for(j=i+1;j<=pn;j++)
    {
        if(at[i]>at[j])
        {
            temp=at[i];
            at[i]=at[j];
            at[j]=temp;

            temp=pno[i];
            pno[i]=pno[j];
            pno[j]=temp;

            temp=bttemp[i];
            bttemp[i]=bttemp[j];
            bttemp[j]=temp;

        }
    }
}

```

```

com[2]=com[1]+bttemp[1];

```

```

for(i=0;i<=pn;i++)
{
    for(j=i+1;j<=pn;j++)
    {
        if(bttemp[i]>bttemp[j])
        {
            temp=at[i];
            at[i]=at[j];
            at[j]=temp;

            temp=pno[i];
            pno[i]=pno[j];
            pno[j]=temp;

            temp=bttemp[i];
            bttemp[i]=bttemp[j];
            bttemp[j]=temp;

        }
    }
}

```

```

    }
}

}

tat[0]=0;
tat[1]=bttemp[0];

wt[0]=0;
for(i=3;i<=pn;i++)
    com[i]=abs(com[i-1]+bttemp[i]);

for(i=1;i<=pn;i++)
    tat[i]=abs(com[i]-at[i]);

for(i=1;i<=pn;i++)
{
    wt[i]=abs(tat[i]-bttemp[i]);
    if(wt[i]==temp1)
        wt[i]=wt[i]-1;
}
}
else
{
    for(i=0;i<=pn;i++)
    {
        for(j=i+1;j<=pn;j++)
        {
            if(at[i]>at[j])
            {
                temp=at[i];
                at[i]=at[j];
                at[j]=temp;

                temp=pno[i];
                pno[i]=pno[j];
                pno[j]=temp;

                temp=bttemp[i];
                bttemp[i]=bttemp[j];
                bttemp[j]=temp;
            }
        }
    }
}

```

```

        }
    }
}

com[1]=com[0]+bttemp[2];

for(i=0;i<=pn;i++)
{
    for(j=i+1;j<=pn;j++)
    {
        if(bttemp[i]>bttemp[j])
        {
            temp=at[i];
            at[i]=at[j];
            at[j]=temp;

            temp=pno[i];
            pno[i]=pno[j];
            pno[j]=temp;

            temp=bttemp[i];
            bttemp[i]=bttemp[j];
            bttemp[j]=temp;
        }
    }
}

```

```

com[2]=com[1]+bttemp[1];

```

```

if(at[1]>at[2])
{
    temp=at[1];
    at[1]=at[2];
    at[2]=temp;

    temp=pno[1];
    pno[1]=pno[2];
    pno[2]=temp;

    temp=bttemp[1];
    bttemp[1]=bttemp[2];
}

```

```

        bttemp[2]=temp;
    }

    tat[0]=0;
    tat[1]=bttemp[0];

    wt[0]=0;
    for(i=3;i<=pn;i++)
        com[i]=abs(com[i-1]+bttemp[i]);

    for(i=1;i<=pn;i++)
        tat[i]=abs(com[i]-at[i]);

    for(i=1;i<=pn;i++)
    {
        if(temp1==bttemp[i])
            bttemp[i]+=1;
        wt[i]=abs(tat[i]-bttemp[i]);
        if(wt[i]==temp1)
            wt[i]=wt[i]-1;
    }

}

for(i=0;i<=pn;i++)
    avg=avg+tat[i];

avgtat=avg/pn;

for(i=0;i<=pn;i++)
    avg2=avg2+wt[i];

avgwt=avg2/pn;

printf("P\tAT\tBT\tCT\tWT\tTAT\t\n");
for(i=0;i<=pn;i++)
{

```

```
printf("P%d\t%d\t%d\t%d\t%d\t%d\n",pno[i],at[i],bttemp[i],com[i],wt[i],tat[i]);
}
```

```
printf("Average waiting time: %f\nAverage turnaround time:
%f\n",avgwt,avgtat);
}
else
{
```

```
bttemp[0]=bttemp[0]+temp2;
com[0]=bttemp[0];
tat[0]=bttemp[0];
wt[0]=0;
```

```
for(i=1;i<pn;i++)
{
    for(j=i+1;j<pn;j++)
    {
        if(bttemp[i]>bttemp[j])
        {
            temp=at[i];
            at[i]=at[j];
            at[j]=temp;

            temp=pno[i];
            pno[i]=pno[j];
            pno[j]=temp;

            temp=bttemp[i];
            bttemp[i]=bttemp[j];
            bttemp[j]=temp;
        }
    }
}
```

```
for(i=1;i<pn;i++)
    com[i]=abs(com[i-1]+bttemp[i]);
```

```
for(i=0;i<pn;i++)
    tat[i]=abs(com[i]-at[i]);
```

```

        for(i=0;i<pn;i++)
            wt[i]=abs(tat[i]-bttemp[i]);

        for(i=0;i<pn;i++)
            avg=avg+tat[i];

        avgtat=avg/pn;

        for(i=0;i<pn;i++)
            avg2=avg2+wt[i];

        avgwt=avg2/pn;

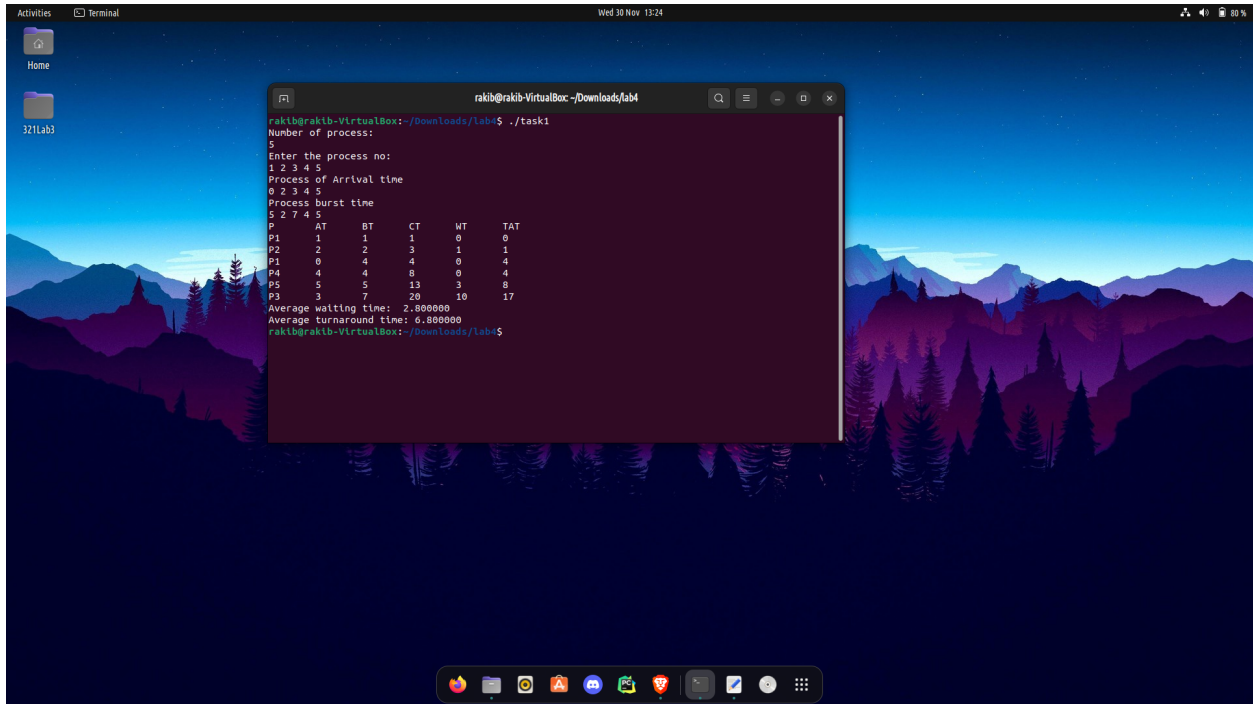
        printf("P\tAT\tBT\tCT\tWT\tTAT\t\n");
        for(i=0;i<pn;i++)
        {
printf("P%d\t%d\t%d\t%d\t%d\t%d\t\n",pno[i],at[i],bttemp[i],com[i],wt[i],tat[i]);
        }

        printf("Average waiting time: %f\nAverage turnaround time:
        %f\n",avgwt,avgtat);
    }

}

```





Task-2:

```

#include<stdio.h>
#include<stdlib.h>
int main()
{
    int
    pn,pno[50]={0},at[50],bt[50],i,tat[50],com[50],wt[50],temp,j,qm,bttemp[50],btttemp[50]={0},tattem
    p[50]={0},tatat[50]={},tatttemp[50]={},wtbt[50],wtbt[50]={};
    float avg,avg2,avgtat,avgwt;
    printf("Number of process:\n");
    scanf("%d",&pn);
    printf("Enter the process:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&pno[i]);
    printf("Process Arrival time\n");
    for(i=0;i<pn;i++)
        scanf("%d",&at[i]);
    printf("Process burst time\n");
    for(i=0;i<pn;i++)
        scanf("%d",&bt[i]);
    printf("Time quantum:\n");
    scanf("%d",&qm);

    for(i=0;i<pn;i++)
    {

```

```

for(j=i+1;j<pn;j++)
{
    if(at[i]>at[j])
    {
        temp=at[i];
        at[i]=at[j];
        at[j]=temp;

        temp=pno[i];
        pno[i]=pno[j];
        pno[j]=temp;

        temp=bt[i];
        bt[i]=bt[j];
        bt[j]=temp;
    }
}
}

```

```

for(i=0;i<pn;i++)
{
    bttemp[i]=bt[i]-qm;
    if(bttemp[i]<0)
    {
        bttemp[i]=bt[i];
        bttemp[i]=bttemp[i];
        bttemp[i]=0;
    }
    if(bt[i]<=qm)
        bttemp[i]=bt[i]-bt[i];
}

```

```

for(i=0;i<pn;i++)
{
    if(bttemp[i]==bttemp[i+1])
    {
        com[0]=bt[0]+at[0];
        tat[0]=bt[0];
        wt[0]=0;
        for(i=1;i<pn;i++)

```

```

        com[i]=abs(com[i-1]+bt[i]);
for(i=0;i<pn;i++)
    tat[i]=abs(com[i]-at[i]);

for(i=0;i<pn;i++)
    wt[i]=abs(tat[i]-bt[i]);

for(i=0;i<pn;i++)
    avg=avg+tat[i];

avgtat=avg/pn;

for(i=0;i<pn;i++)
    avg2=avg2+wt[i];

avgwt=avg2/pn;

printf("Process\tAT\tBT\tCT\tWT\tTAT\t\n");
for(i=0;i<pn;i++)
{
printf("P%d\t%d\t%d\t%d\t%d\t%d\t\n",pno[i],at[i],bt[i],com[i],wt[i],tat[i]);
}

printf("Average waiting time: %f\nAverage turnaround
time: %f\n",avgwt,avgtat);
}
else if(bttemp[i]>bttemp[i+1]||bttemp[i]<bttemp[i+1])
{
    if(bttemp[0]>=qm)
        com[0]=at[0]+qm;
    else
        com[0]=at[0]+bt[0];

for(i=1;i<pn;i++)
{
    if(bt[i]>=qm)
        com[i]=com[i-1]+qm;
    else
        com[i]=com[i-1]+bt[i];
}
}

```

```

for(i=0;i<pn;i++)
{
    if(bttemp[i]>0)
    {
        pno[i+pn]=pno[i];
        at[i+pn]=at[i];
        bt[i+pn]=bt[i];
        bttemp[i+pn]=bttemp[i]-qm;
        if(bttemp[i+pn]<0)
        {
            bttemp[i+pn]=bttemp[i];
            bttemp[i]=bttemp[i+pn];
            bttemp[i+pn]=0;
        }
        if(bttemp[i]<=qm)
            bttemp[i+pn]=bttemp[i]-bttemp[i];
    }
    else
    {
        pno[i+pn]=0;
        at[i+pn]=0;
        bt[i+pn]=0;
        bttemp[i+pn]=0;
    }
}

```

```

for(i=0;i<pn;i++)
{
    if(bttemp[i+pn]!=-1)
    {
        if(bttemp[i+pn]>=qm)
            com[i+pn]=com[i+pn-1]+qm;
        else
            com[i+pn]=com[i+pn-1]+bttemp[i];
    }
    else
    {
        com[i+pn]=0;
    }
}

```

```

}
for(i=pn;i<pn+pn-1;i++)
{
    if(bttemp[i]>0)
    {
        pno[i+pn-1]=pno[i];
        at[i+pn-1]=at[i];
        bt[i+pn-1]=bt[i];
        bttemp[i+pn-1]=bttemp[i]-qm;
        if(bttemp[i+pn-1]<0)
        {
            bttemp[i+pn-1]=bttemp[i];
            btttemp[i]=bttemp[i+pn-1];
            bttemp[i+pn-1]=0;
        }
        if(bttemp[i]<=qm)
            bttemp[i+pn-1]=bttemp[i]-bttemp[i];
    }
    else
    {
        pno[i+pn-1]=0;
        at[i+pn-1]=0;
        bt[i+pn-1]=0;
        bttemp[i+pn-1]=0;
    }
}

for(i=pn;i<pn+pn-1;i++)
{
    if(bttemp[i+pn-1]!=-1)
    {
        if(bttemp[0+pn]>=qm)
            com[i+pn-1]=com[i+pn-1]+qm;
        else
            com[i+pn-1]=com[i+pn-1]+btttemp[i];
    }
    else
    {
        com[i+pn-1]=0;
    }
}

```

```

for(i=pn+pn-1;i<pn+pn+1;i++)
{
    if(bttemp[i]>0)
    {
        pno[i+1]=pno[i];
        at[i+1]=at[i];
        bt[i+1]=bt[i];
        bttemp[i+1]=bttemp[i]-qm;
        if(bttemp[i+1]<0)
        {
            bttemp[i+1]=bttemp[i];
            bttemp[i]=bttemp[i+1];
            bttemp[i+1]=0;
        }
        if(bttemp[i]<=qm)

bttemp[i+1]=bttemp[i]-bttemp[i];
    }
    else
    {
        pno[i+1]=0;
        at[i+1]=0;
        bt[i+1]=0;
        bttemp[i+1]=0;
    }
}

for(i=pn+pn-1;i<pn+pn+1;i++)
{
    if(bttemp[i+1]!=-1)
    {
        if(bttemp[i]>=qm)
            com[i+1]=com[i]+qm;
        else
            com[i+1]=com[i]+bttemp[i];
    }
    else
    {
        com[i+1]=0;
    }
}

for(i=0;i<pn+pn+1;i++)

```

```

{
    tattemp[i]=com[i];
    tatat[i]=at[i];
    wtbt[i]=bt[i];
}

```

```

for(i=0;i<pn+pn+1;i++)
{
    for(j=i+1;j<pn+pn+1;j++)
    {
        if(tatat[i]>tatat[j])
        {
            temp=tatat[i];
            tatat[i]=tatat[j];
            tatat[j]=temp;

            temp=tattemp[i];
            tattemp[i]=tattemp[j];
            tattemp[j]=temp;

            temp=wtbt[i];
            wtbt[i]=wtbt[j];
            wtbt[j]=temp;

        }
    }
}

```

```

for(i=0;i<pn+pn+1;i++)
{
    if(tatat[i]!=tatat[i+1])
    {
        tatttemp[i]=tattemp[i];
        wttbt[i]=wtbt[i];

    }
}

```

```

for(i=0;i<pn+pn+1;i++)
{
    tat[i]=tatttemp[i]-tatat[i];
    if(tat[i]<0)

```

```

                                tat[i]=0;
                                wt[i]=tat[i]-wtbt[i];
                                if(wt[i]<0)
                                    wt[i]=0;
                            }

                            for(i=0;i<pn+pn+1;i++)
                                avg=avg+tat[i];
                            avgtat=avg/pn;

                            for(i=0;i<pn+pn+1;i++)
                                avg2=avg2+wt[i];
                            avgwt=avg2/pn;

                            printf("Process\tAT\tBT\tCT\tWT\tTAT\t\n");
                            for(i=0;i<pn+pn+1;i++)
                            {

printf("P%d\t%d\t%d\t%d\t%d\t%d\t%d\n",pno[i],at[i],bt[i],com[i],wt[i],tat[i]);
                            }

                            printf("Average waiting time: %f\nAverage turnaround
time: %f\n",avgwt,avgtat);
                        }
                    }
                }
            }
        }
    }
}

```



```
rakib@rakib-VirtualBox:~/Downloads/lab4$ gcc -o task2 task2.c
rakib@rakib-VirtualBox:~/Downloads/lab4$ ./task2
Number of process:
5
Enter the process:
1 2 3 4 5
Process Arrival time
3 5 18 20 4
Process burst time
8 6 3 3 5
Time quantum:
20
Process AT    BT    CT    WT    TAT
P1 3 8 11 0 8
P5 4 5 16 7 12
P2 5 6 22 11 17
P3 18 3 25 4 7
P4 20 3 28 5 8
Average waiting time: 5.400000
Average turnaround time: 10.400000
rakib@rakib-VirtualBox:~/Downloads/lab4$
```

Task-3:

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int
    pn,pno[20],at[20],bt[20],pr[20],i,tat[20],com[20],wt[20],temp,j,bttemp[20]={},temp1=0,temp2;
    float avg,avg2,avgtat,avgwt;
    printf("Number of process:\n");
    scanf("%d",&pn);
    printf("Enter the process no:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&pno[i]);
    printf("Process Arrival time:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&at[i]);
    printf("Process burst time:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&bt[i]);
    printf("Process priority:\n");
    for(i=0;i<pn;i++)
        scanf("%d",&pr[i]);

    for(i=0;i<pn;i++)
    {
```

```

        for(j=i+1;j<pn;j++)
        {
            if(at[i]>at[j])
            {
                temp=at[i];
                at[i]=at[j];
                at[j]=temp;

                temp=pno[i];
                pno[i]=pno[j];
                pno[j]=temp;

                temp=bt[i];
                bt[i]=bt[j];
                bt[j]=temp;
            }
        }
    }

    temp2=1;
    temp1=bttemp[0]=bt[0]-1;

    com[0]=at[0]+1;

    for(i=1;i<pn;i++)
    {
        bttemp[i]=bt[i];
    }

    if(bttemp[0]>bttemp[1])
    {
        bttemp[pn]=temp2;

        for(i=0;i<=pn;i++)
        {
            for(j=i+1;j<=pn;j++)
            {
                if(bttemp[i]>bttemp[j])
                {
                    temp=at[i];
                    at[i]=at[j];
                    at[j]=temp;

```

```

        temp=pno[i];
        pno[i]=pno[j];
        pno[j]=temp;

        temp=bttemp[i];
        bttemp[i]=bttemp[j];
        bttemp[j]=temp;

    }

}

pno[0]=bttemp[0];
at[0]=bttemp[0];

if(at[1]<at[2])
{
    com[1]=com[0]+bttemp[1];

    for(i=0;i<=pn;i++)
    {
        for(j=i+1;j<=pn;j++)
        {
            if(at[i]>at[j])
            {
                temp=at[i];
                at[i]=at[j];
                at[j]=temp;

                temp=pno[i];
                pno[i]=pno[j];
                pno[j]=temp;

                temp=bttemp[i];
                bttemp[i]=bttemp[j];
                bttemp[j]=temp;

            }

        }
    }
}

```

```

    }

    com[2]=com[1]+bttemp[1];

    for(i=0;i<=pn;i++)
    {
        for(j=i+1;j<=pn;j++)
        {
            if(bttemp[i]>bttemp[j])
            {
                temp=at[i];
                at[i]=at[j];
                at[j]=temp;

                temp=pno[i];
                pno[i]=pno[j];
                pno[j]=temp;

                temp=bttemp[i];
                bttemp[i]=bttemp[j];
                bttemp[j]=temp;
            }
        }
    }

    tat[0]=0;
    tat[1]=bttemp[0];

    wt[0]=0;
    for(i=3;i<=pn;i++)
        com[i]=abs(com[i-1]+bttemp[i]);

    for(i=1;i<=pn;i++)
        tat[i]=abs(com[i]-at[i]);

    for(i=1;i<=pn;i++)
    {
        wt[i]=abs(tat[i]-bttemp[i]);
        if(wt[i]==temp1)
            wt[i]=wt[i]-1;
    }

```

```

    }
    }
    else
    {
        for(i=0;i<=pn;i++)
        {
            for(j=i+1;j<=pn;j++)
            {
                if(at[i]>at[j])
                {
                    temp=at[i];
                    at[i]=at[j];
                    at[j]=temp;

                    temp=pno[i];
                    pno[i]=pno[j];
                    pno[j]=temp;

                    temp=bttemp[i];
                    bttemp[i]=bttemp[j];
                    bttemp[j]=temp;

                }
            }
        }

        com[1]=com[0]+bttemp[2];

        for(i=0;i<=pn;i++)
        {
            for(j=i+1;j<=pn;j++)
            {
                if(bttemp[i]>bttemp[j])
                {
                    temp=at[i];
                    at[i]=at[j];
                    at[j]=temp;

                    temp=pno[i];
                    pno[i]=pno[j];
                    pno[j]=temp;

                    temp=bttemp[i];
                    bttemp[i]=bttemp[j];

```

```

                                bttemp[j]=temp;
                                }
                                }
}

```

```

com[2]=com[1]+bttemp[1];

```

```

if(at[1]>at[2])
{
    temp=at[1];
    at[1]=at[2];
    at[2]=temp;

    temp=pno[1];
    pno[1]=pno[2];
    pno[2]=temp;

    temp=bttemp[1];
    bttemp[1]=bttemp[2];
    bttemp[2]=temp;
}

```

```

tat[0]=0;
tat[1]=bttemp[0];

```

```

wt[0]=0;
for(i=3;i<=pn;i++)
    com[i]=abs(com[i-1]+bttemp[i]);

```

```

for(i=1;i<=pn;i++)
    tat[i]=abs(com[i]-at[i]);

```

```

for(i=1;i<=pn;i++)
{
    if(temp1==bttemp[i])
        bttemp[i]+=1;
    wt[i]=abs(tat[i]-bttemp[i]);
    if(wt[i]==temp1)

```

```

        wt[i]=wt[i]-1;

    }

}

for(i=0;i<=pn;i++)
    avg=avg+tat[i];

avgtat=avg/pn;

for(i=0;i<=pn;i++)
    avg2=avg2+wt[i];

avgwt=avg2/pn;

printf("P\tAT\tBT\tCT\tWT\tTAT\t\n");
for(i=0;i<=pn;i++)
{
printf("P%d\t%d\t%d\t%d\t%d\t%d\t\n",pno[i],at[i],bttemp[i],com[i],wt[i],tat[i]);
}

printf("Average waiting time:  \n\nAverage turnaround time:
\n\n",avgwt,avgtat);
}
else
{

    bttemp[0]=bttemp[0]+temp2;
    com[0]=bttemp[0];
    tat[0]=bttemp[0];
    wt[0]=0;

    for(i=1;i<pn;i++)
    {
        for(j=i+1;j<pn;j++)
        {
            if(bttemp[i]>bttemp[j])
            {
                temp=at[i];

```

```
at[i]=at[j];  
at[j]=temp;
```

```
temp=pno[i];  
pno[i]=pno[j];  
pno[j]=temp;
```

```
temp=bttemp[i];  
bttemp[i]=bttemp[j];  
bttemp[j]=temp;
```

```
}
```

```
}
```

```
}
```

```
for(i=1;i<pn;i++)  
    com[i]=abs(com[i-1]+bttemp[i]);
```

```
for(i=0;i<pn;i++)  
    tat[i]=abs(com[i]-at[i]);
```

```
for(i=0;i<pn;i++)  
    wt[i]=abs(tat[i]-bttemp[i]);
```

```
for(i=0;i<pn;i++)  
    avg=avg+tat[i];
```

```
avgtat=avg/pn;
```

```
for(i=0;i<pn;i++)  
    avg2=avg2+wt[i];
```

```
avgwt=avg2/pn;
```

```
printf("P\tAT\tBT\tCT\tWT\tTAT\t\n");  
for(i=0;i<pn;i++)  
{
```

```
printf("P%d\t%d\t%d\t%d\t%d\t%d\t\n",pno[i],at[i],bttemp[i],com[i],wt[i],tat[i]);  
}
```



```

printf("Average waiting time: %f\nAverage turnaround time:
%f\n",avgwt,avgtat);
}

}

```

The screenshot shows a Linux desktop with a terminal window titled 'rakib@rakib-VirtualBox: ~/Downloads/lab4'. The terminal displays the output of a program that simulates a process scheduling algorithm. The user has entered '4' for the number of processes. The program then prompts for arrival times, burst times, and priorities for each process. The output shows a table of process details and the calculated average waiting and turnaround times.

```

rakib@rakib-VirtualBox:~/Downloads/lab4$ ./task3
Number of process:
4
Enter the process no:
1 2 3 4
Process Arrival time:
2 5 1 9
Process burst time:
5 3 9 1
Process priority:
5 6 3 2
P    AT    BT    CT    WT    TAT
P1   0     1     2     0     0
P1   1     1     3     1     2
P2   5     3     4     2     1
P1   2     5     9     2     7
P3   1     8    17     7    16
Average waiting time: 3.000000
Average turnaround time: 6.500000
rakib@rakib-VirtualBox:~/Downloads/lab4$

```