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COURSE : Operating Systems

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CODE :

FILE7.C

```
#include<stdio.h>
int main()
{
   int bt[20],p[20],wt[20],tat[20],i,j,n,total=0,pos,temp;
   float avg_wt,avg_tat;
printf("Enter the number of process :");
scanf("%d",&n);
for(i=0;i<n;i++)
{
printf("p%d:",i+1);
scanf("%d",&bt[i]);
p[i]=i+1;
}
for(i=0;i<n;i++)
  {
   pos=i;
  for(j=i+1;j<n;j++)
   {
    if(bt[j]<bt[pos])
      pos=j;
   }
temp=bt[i];
bt[i]=bt[pos];
bt[pos]=temp;
temp=p[i];
p[i]=p[pos];
p[pos]=temp;
}
wt[0]=0;
for(i=0;i<n;i++);
{
wt[i]=0;
for(j=0;j<i;j++)
```

```
wt[i]+=bt[j];
total+=wt[i];
}
avg_wt=(float)total/n;
total=0;
printf("\nProcess\t Burst Time\tWaiting Time \t Turnaround Time");
for(i=0;i<n;i++)
{
tat[i]=bt[i]+wt[i];
total+=tat[i];
printf("\np%d\t\t %d\t\t %d\t\t\t%d", p[i],bt[i],wt[i],tat[i]);
}
avg_tat=(float)total/n;
printf("\n\nAverage Waiting Time=%f",avg_wt);
printf("\nAverage Turnaround Time=%f\n",avg_tat);
}
```

FIL8.C

```
#include<stdio.h>
void main()
{
int i,j,n,bt[10],p[10],compt[1],wt[10],tat[10],temp1,temp2;
float sumwt=0.0,sumtat=0.0,avgwt,avgtat;
printf("Enter the number of processes : ");
scanf("%d",&n);
printf("Enter the burst time of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&bt[i]);
printf("Enter the priority of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&p[i]);
for(i=0;i<n;i++)
for(j=i+1;j<n;j++)
if(p[i]>p[j])
{
temp1=bt[i];
bt[i]=bt[j];
bt[j]=temp1;
temp2=p[i];
p[i]=p[j];
p[j]=temp2;
}
compt[0]=bt[0];
wt[0]=0;
for(i=1;i<n;i++)
compt[i]=bt[i]+compt[i-1];
for(i=0;i<n;i++)
tat[i]=compt[i];
wt[i]=tat[i]-bt[i];
sumtat+=tat[i];
sumwt+=wt[i];
}
```

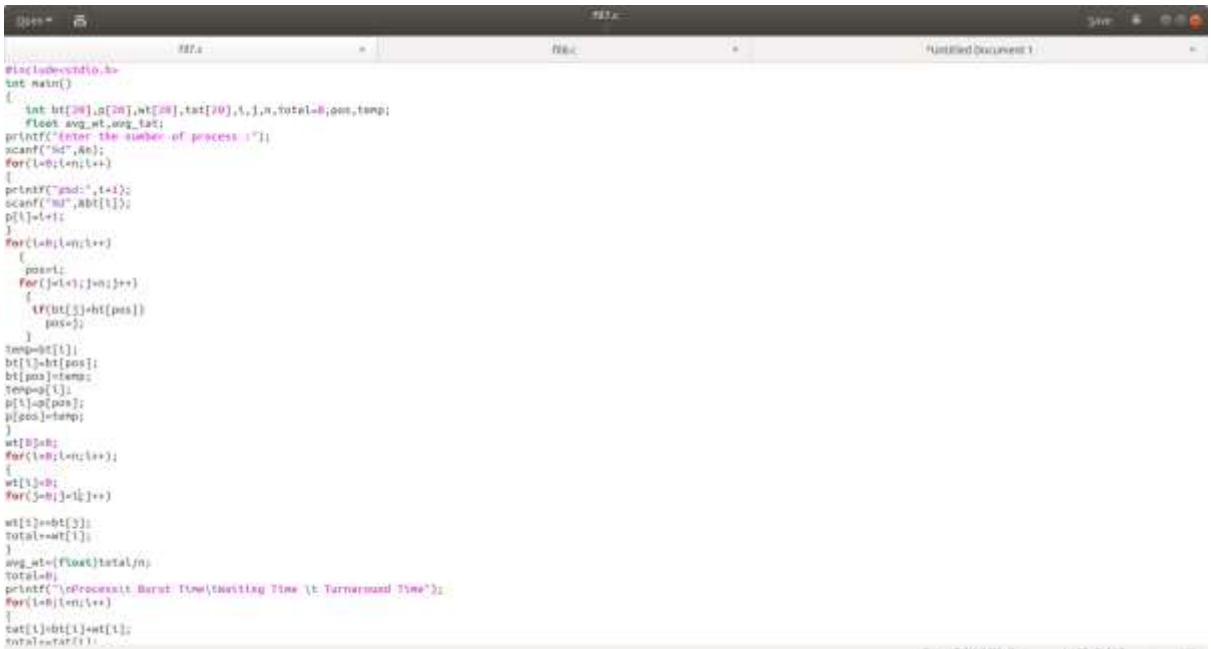
```
avgwt=sumwt/n;
avgtat=sumtat/n;
printf("-----------------------\n");
printf("Bt\tCt\tTat\tWt\n");
printf("-----------------------\n");
for(i=0;i<n;i++)
{
printf("%2d\t%2d\t%2d\t%2d\n");
compt[i],tat[i],wt[i])
}
printf("-----------------------\n");
printf(" Avgwt = %.2f\tAvgtat = %.2f\n",avgwt,avgtat);
printf("-----------------------\n");
}
```

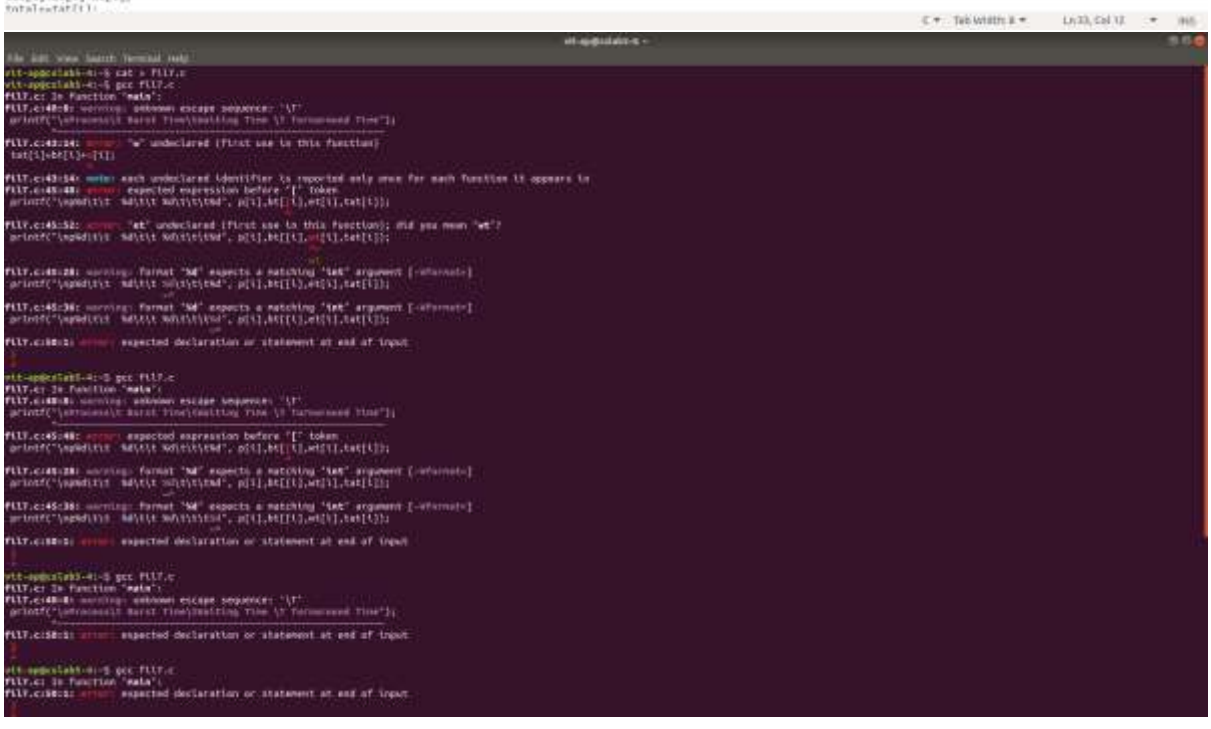
MUL.JAVA

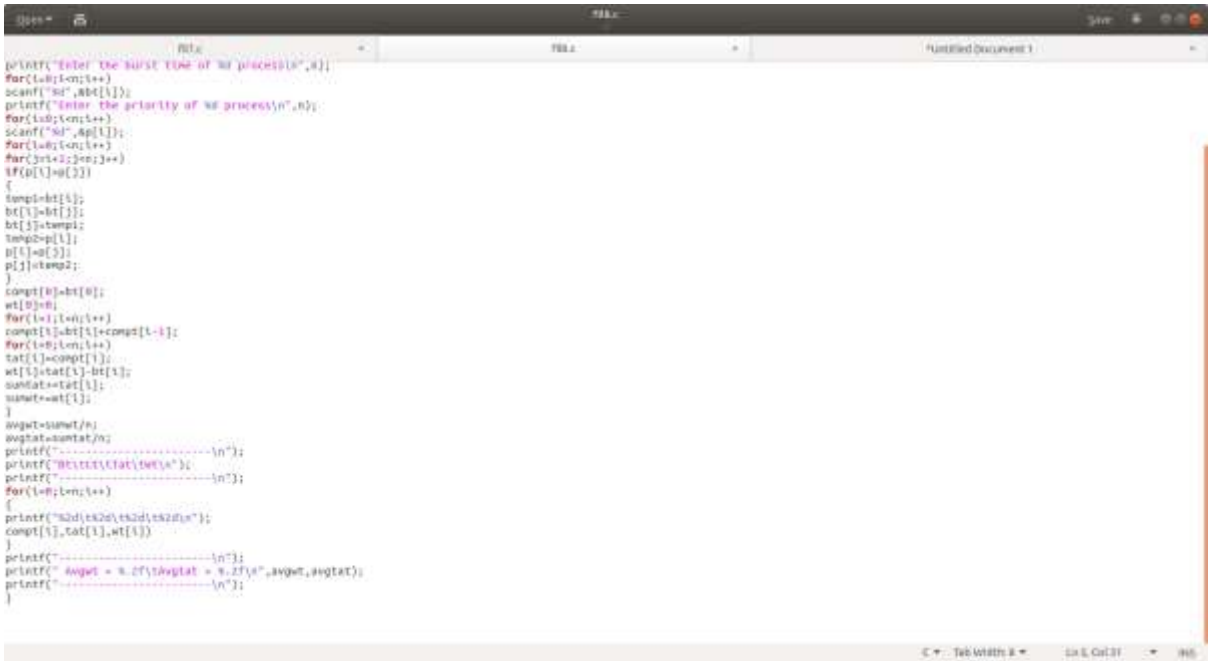
```
import java.lang.*;
import java.util.*;

class A1 extends Thread
{
int i,j;
A1(int x, int y)
{
i=x;
j=y;
}
public void run()
{
System.out.println("Thread A::ARITHMATIC OPERATIONS");
System.out.println("SUM" +(i+j));
System.out.println("DIFFERNCE "+(i-j));
System.out.println("PRODUCT " +(i*j));
System.out.println("RATIO " +(i/j));
System.out.println("POWER "+Math.pow(i,j));
System.out.println("END of A");
}
}

class B1 extends Thread
{
  int i;
B1(int x)
{
i=x;
}
public void run()
{
System.out.println("THREAD B :: TRIGNOMETIC OPERATIONS");
System.out.println("SINE OF "+i+""+Math.sin(i));
System.out.println("COSINE OF "+i+""+Math.cos(i));
System.out.println("TAN OF "+i+""+Math.tan(i));
```

```
System.out.println("SQUARE ROOT  OF "+i+""+Math.sqrt(i));
System.out.println(" END OF B");

}
}

class mul
{
public static void main(String args[])
{
Scanner s= new Scanner(System.in);
System.out.println("ENTER WOO VALUES FOR ARITHMETIC OPERATIONS");
int x=s.nextInt();
int y=s.nextInt();
System.out.println("ENTER A VALUE FOR TRIGNOMETIRC OPERATIONS");
int z=s.nextInt();
A1 a=new A1(x,y);
B1 b=new B1(z);
a.start();
b.start();
}
}
```

SCREENSHOTS:





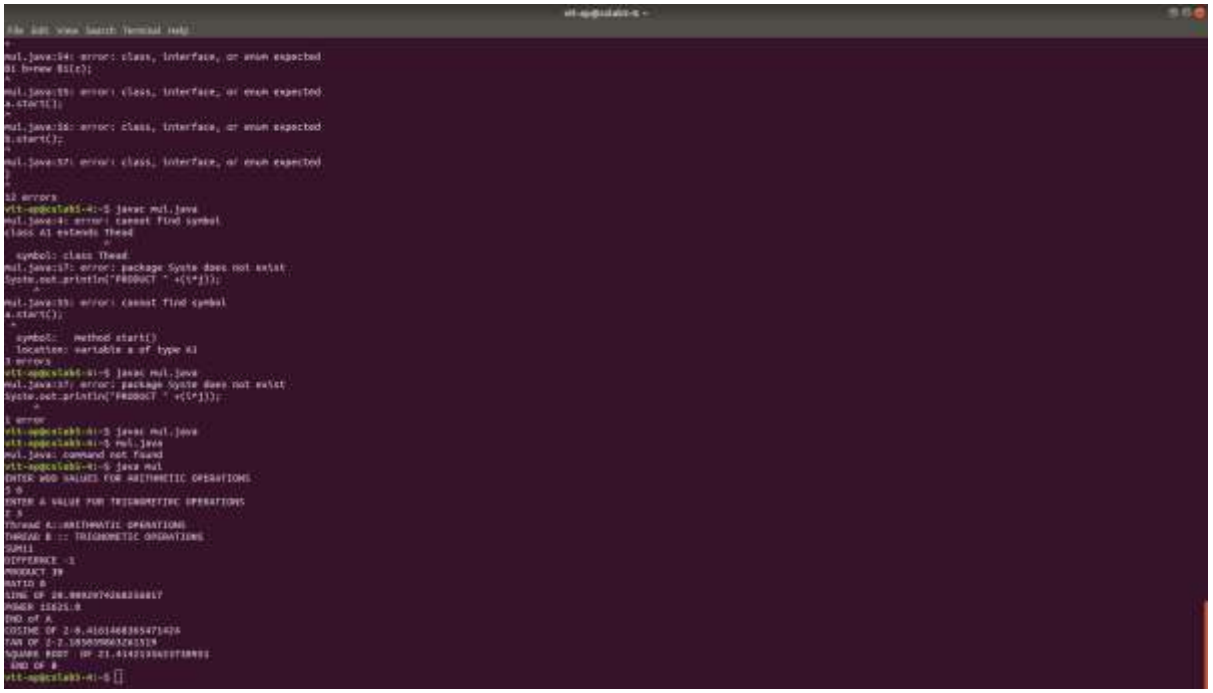


```
printf("Enter the burst time of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&bt[i]);
printf("Enter the priority of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&p[i]);
for(i=0;i<n;i++)
for(j=i+1;j<n;j++)
if(p[i]>p[j])
{
temp1=bt[i];
bt[i]=bt[j];
bt[j]=temp1;
temp2=p[i];
p[i]=p[j];
p[j]=temp2;
}
compt[0]=bt[0];
wt[0]=0;
for(i=1;i<n;i++)
compt[i]=bt[i]+compt[i-1];
for(i=0;i<n;i++)
tat[i]=compt[i];
wt[i]=tat[i]-bt[i];
sumtat+=tat[i];
sumwt+=wt[i];
}
avgwt=sumwt/n;
avgtat=sumtat/n;
printf("-------------------------\n");
printf("Bt\t\t\tTat\tWt\n");
printf("-------------------------\n");
for(i=0;i<n;i++)
{
printf("%2d\t%2d\t%2d\t%2d\n",
compt[i],tat[i],wt[i])
}
printf("-------------------------\n");
printf(" Avgwt = %.2f\tAvgtat = %.2f\t",avgwt,avgtat);
printf("-------------------------\n");
}
```

```
printf("\npid\t\t  %d\t\t %d\t\t\t\n", p[i],bt[i],wt[i],tat[i]);
                                    ^
fil7.c:50:1: error: expected declaration or statement at end of input
 }
 ^
vit-ap@cslab3-4:~$ gcc fil7.c
fil7.c: In function 'main':
fil7.c:40:8: warning: unknown escape sequence: '\P'
 printf("\nProcess\t Burst Time\tWaiting Time \t Turnaround Time");
        ^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
fil7.c:45:48: error: expected expression before '[' token
 printf("\npid\t\t  %d\t\t %d\t\t\t\t%d", p[i],bt[i],wt[i],tat[i]);
                                                ^
fil7.c:45:20: warning: format '%d' expects a matching '%n' argument [-Wformat=]
 printf("\npid\t\t  %d\t\t %d\t\t\t\t%d", p[i],bt[i],wt[i],tat[i]);
                    ^~
fil7.c:45:30: warning: format '%d' expects a matching '%n' argument [-Wformat=]
 printf("\npid\t\t  %d\t\t %d\t\t\t\t%d", p[i],bt[i],wt[i],tat[i]);
                              ^~
fil7.c:50:1: error: expected declaration or statement at end of input
 }
 ^
vit-ap@cslab3-4:~$ gcc fil7.c
fil7.c: In function 'main':
fil7.c:40:8: warning: unknown escape sequence: '\P'
 printf("\nProcess\t Burst Time\tWaiting Time \t Turnaround Time");
        ^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
fil7.c:50:1: error: expected declaration or statement at end of input
 }
 ^
vit-ap@cslab3-4:~$ gcc fil7.c
fil7.c: In function 'main':
fil7.c:50:1: error: expected declaration or statement at end of input
 }
 ^
vit-ap@cslab3-4:~$ gcc fil7.c
vit-ap@cslab3-4:~$ ./a.out
Enter the number of process :5
p1:3
p2:4
p3:6
p4:8
p5:3

Process  Burst Time     Waiting Time     Turnaround Time
p1              3               0                3
p5              3               3                6
p2              4               6                10
p3              1               10               11
p4              8               -1               7

Average Waiting Time=4.200000
Average Turnaround Time=7.000000
vit-ap@cslab3-4:~$ cat > fil8.c
vit-ap@cslab3-4:~$
```

```c
#include<stdio.h>
void main()
{
int i,j,n,bt[10],p[10],compt[i],wt[10],tat[10],tempt,temp2;
float sumwt=0.0,sumtat=0.0,avgwt,avgtat;
printf("Enter the number of processes : ");
scanf("%d",&n);
printf("Enter the burst time of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&bt[i]);
printf("Enter the priority of %d process\n",n);
for(i=0;i<n;i++)
scanf("%d",&p[i]);
for(i=0;i<n;i++)
for(j=i+1;j<n;j++)
if(p[i]>p[j])
{
tempi=bt[i];
bt[i]=bt[j];
bt[j]=tempi;
temp2=p[i];
p[i]=p[j];
p[j]=temp2;
}
compt[0]=bt[0];
wt[0]=0;
for(i=1;i<n;i++)
compt[i]=bt[i]+compt[i-1];
for(i=0;i<n;i++)
tat[i]=compt[i];
wt[i]=tat[i]-bt[i];
sumtat+=tat[i];
sumwt+=wt[i];
}
avgwt=sumwt/n;
avgtat=sumtat/n;
printf("-----------------------\n");
printf("Bt\tCT\ttat\tWt\n");
printf("-----------------------\n");
for(i=0;i<n;i++)
{
printf("%2d\t%2d\t%2d\t%2d\n");
compt[i],tat[i],wt[i])
}
```

```c
scanf("%d",&bt[i]);
p[i]=i+1;
}
for(i=0;i<n;i++)
  {
    pos=i;
  for(j=i+1;j<n;j++)
    {
      if(bt[j]<bt[pos])
        pos=j;
    }
temp=bt[i];
bt[i]=bt[pos];
bt[pos]=temp;
temp=a[i];
p[i]=p[pos];
p[pos]=temp;
}
wt[0]=0;
for(i=0;i<n;i++);
{
wt[i]=0;
for(j=0;j<i;j++)

wt[i]+=bt[j];
total+=wt[i];
}
avg_wt=(float)total/n;
total=0;
printf("\nProcess\t Burst Time\tWaiting Time \t Turnaround Time");
for(i=0;i<n;i++)
{
tat[i]=bt[i]+wt[i];
total+=tat[i];
printf("\np%d\t\t %d\t\t %d\t\t\t%d", p[i],bt[i],wt[i],tat[i]);
}
avg_tat=(float)total/n;
printf("\n\nAverage Waiting Time=%f",avg_wt);
printf("\naverage Turnaround Time=%f\n",avg_tat);
}
```


mul.java:64: error: class, interface, or enum expected
mul.java:69: error: class, interface, or enum expected
mul.java:86: error: class, interface, or enum expected
mul.java:97: error: class, interface, or enum expected
12 errors
mul.java:4: error: cannot find symbol
mul.java:17: error: package Syste does not exist
mul.java:33: error: cannot find symbol
3 errors
mul.java:17: error: package Syste does not exist
1 error
mul.java: command not found
ENTER ANY VALUES FOR ARITHMETIC OPERATIONS
ENTER A VALUE FOR TRIGONMETIRC OPERATIONS
Thread A::ARITHMATIC OPERATIONS
THREAD B :: TRIGONOMETIC OPERATIONS
SUM:11
DIFFERNCE -1
PRODUCT 30
RATIO 0
SINE OF 28.000207458833887
POWER 15625.0
END of A
COSTHE OF 2-0.4161468365471424
TAN OF 2-2.185039863261519
SQUARE ROOT OF 21.414213562373095
END OF B