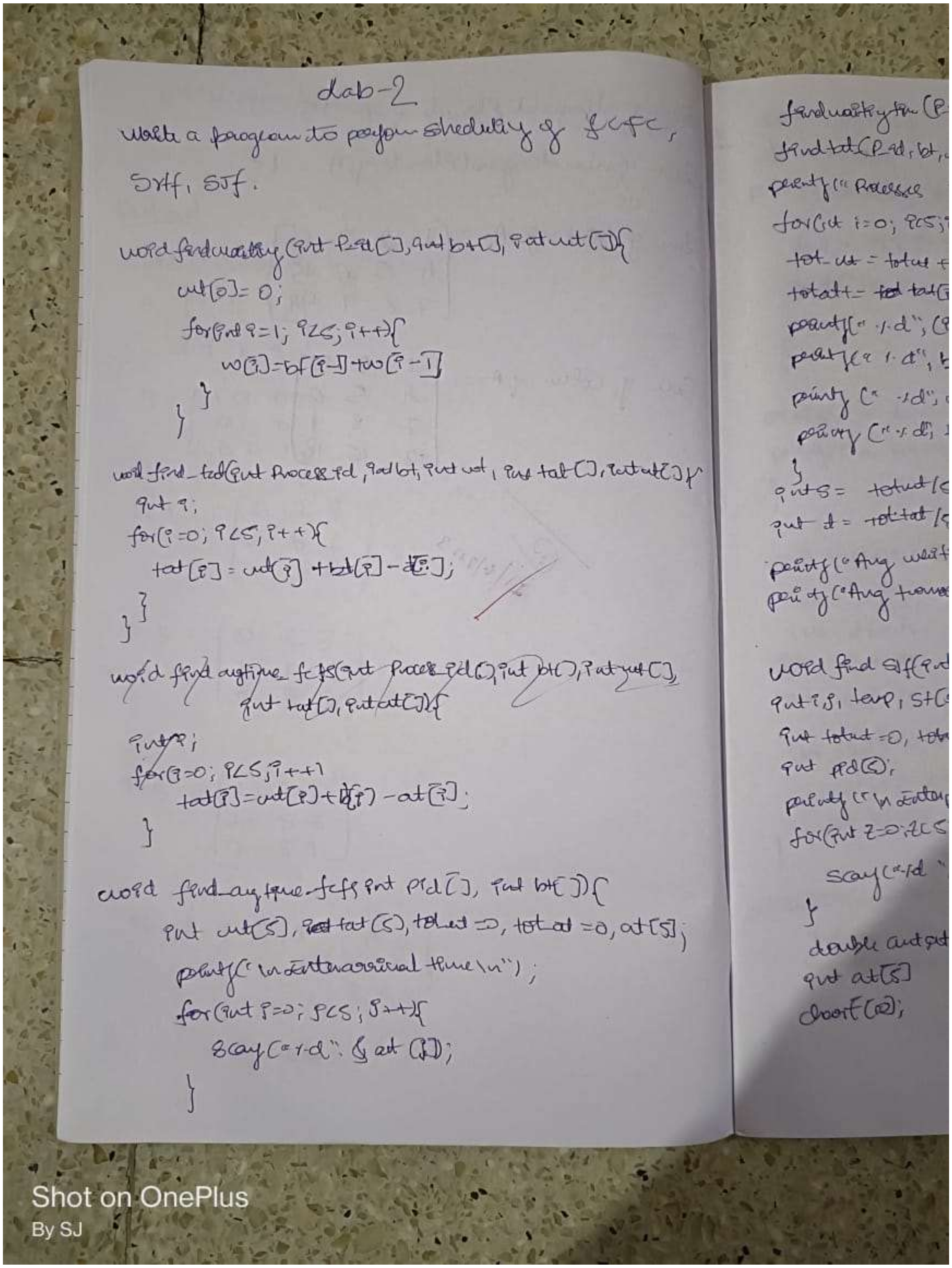
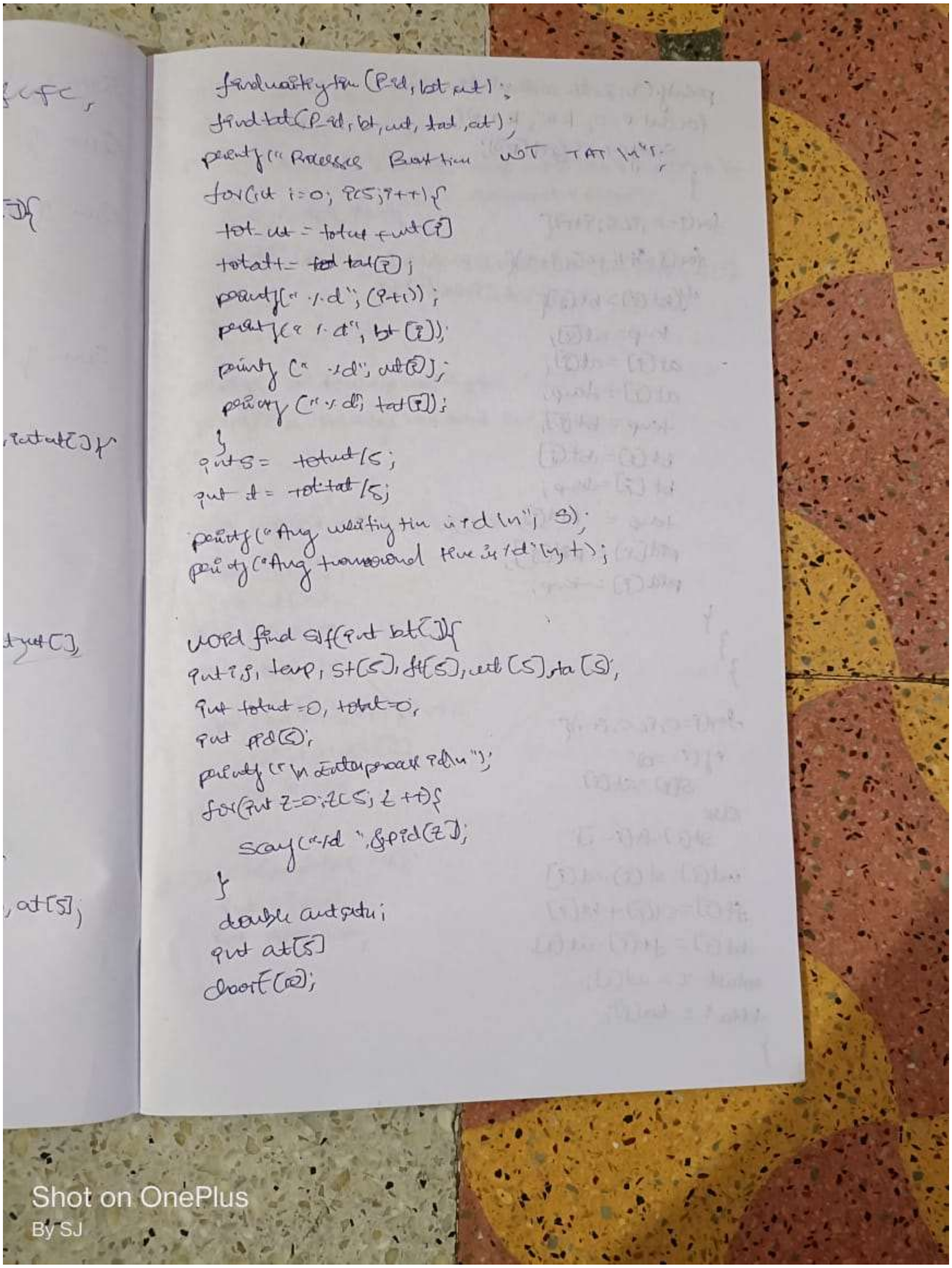


Lab-2

Write a program to perform sheduling of fcfc, srtf, sjf.

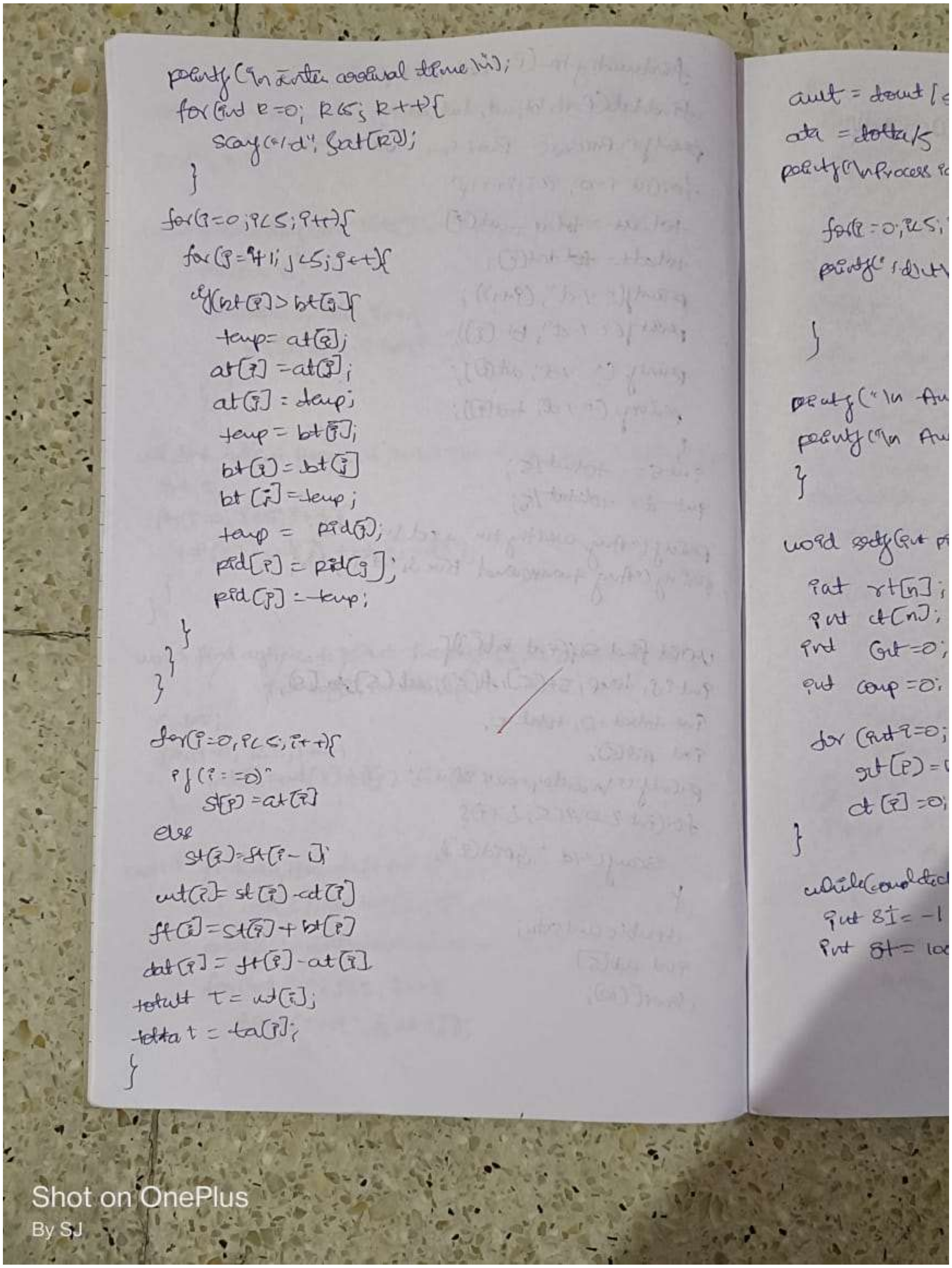
```
void findwaiting(int P-id[], int bt[], int wt[]){
      wt[0]= 0;
      for(int i=1; i<5; i++){
          w[i]=bt[i-1]+w[i-1]
      }
   }
void find_tat(int Process id, int bt, int wt, int tat[], int at[]){
  int i;
  for(i=0; i<5; i++){
     tat[i] = wt[i] +bt[i] - at[i];
  }
}
void find avgtime_fcfs(int Process id(), int bt(), int wt[],
              int tat[], int at[]){
  int i;
  for(i=0; i<5; i++)
      tat[i]=wt[i]+bt[i] -at[i];
  }

void find_avgtime_fcfs int pid[], int bt[]){
     int wt[5], ~~int~~ tat(5), tot_wt =0, tot_at =0, at[5];
     printf("\nEnter arrival time\n");
     for(int j=0; j<5; j++){
        scanf("%d", & at (j));
     }
```

```
findwaitingtime(P
find tat(P_id, bt,
printf("Processe
for(int i=0; i<5;
 tot_wt = totwt +
 totat += ~~tot~~ tat[
 printf(" %d", (
 printf(" %d", b
 printf(" %d",
 printf(" %d",
}
int s= totwt/(
int t= tottat/(
printf("Avg wait
printf("Avg turna

void find sjf(int
int i,j, temp, st(
 int totwt=0, tot
 int pid(5);
 printf("\n Enter
 for(int z=0;z<5
    scanf("%d "
 }
 double avtat
 int at[5]
 clrscr();
```



```
j<fc,
[]){
, totwt[]){
t,wt[],
, at[5];
```

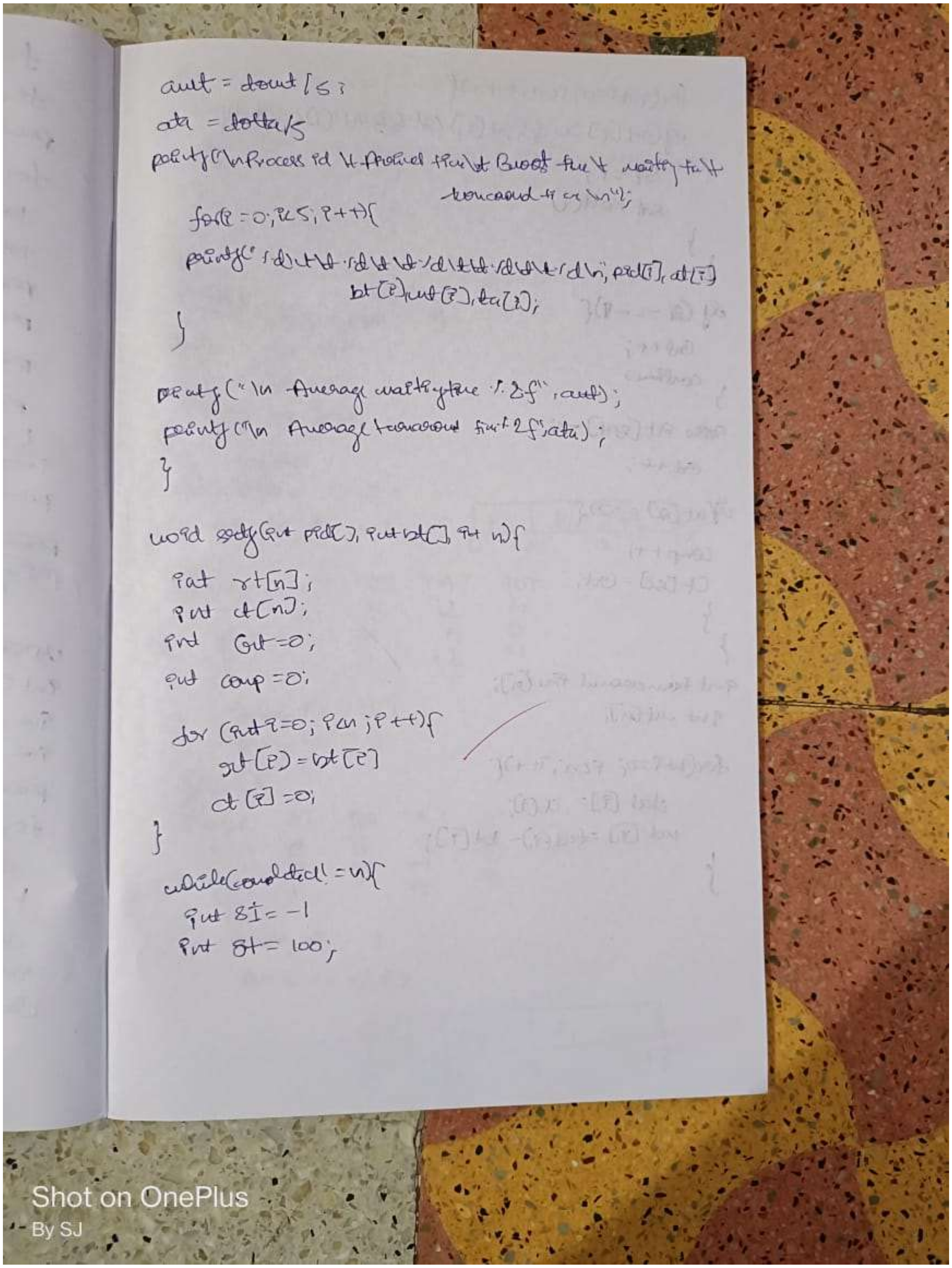
```
findwaitingtime(P-id, bt wt);
findtat(P-id, bt, wt, tat, at);
printf(" Process  Burst time  WT  TAT \n");
for(int i=0; i<5;i++){
 tot_wt = totwt +wt[i]
 totatt= ~~tat~~ tat[i];
 printf(" %d", (i+1));
 printf(" %d", bt[i]);
 printf (" %d", wt[i]);
 printf (" %d", tat[i]);
}
int s= totwt/5;
int t = tottat/5;
printf("Avg waiting time is %d\n", s);
printf("Avg turnaround time is %d\n", t);

void find sjf(int bt[]){
int i,j, temp, st[5], ft[5], wt[5], ta[5];
int totwt=0, totat=0,
int pid[5];
printf("\n Enter process id\n");
for(int z=0;z<5; z++){
   scanf("%d", &pid[z]);
}
 double awt,ata;
int at[5]
clrscr();
```



```
printf("\n enter arrival time \n");
 for(int k=0; k<5; k++){
    scanf("%d", &at[k]);
  }
for(i=0;i<5;i++){
  for(j=i+1; j<5;j++){
   if(bt[i]>bt[j]){
     temp= at[i];
     at[i] =at[j];
     at[j] = temp;
     temp = bt[i];
     bt[i] = bt[j]
     bt [j] =temp;
     temp = pid[i];
     pid[i] = pid[j];
     pid[j] = temp;
  }
 }
}

for(i=0, i<5, i++){
  if (i==0)
    st[i] =at[i]
 else
   st[i]=ft[i-1]
 wt[i]= st[i]-at[i]
 ft[i]=st[i]+bt[i]
 tat[i] = ft[i]-at[i]
totalwt t= wt[i];
totalta t = ta[i];
}
```

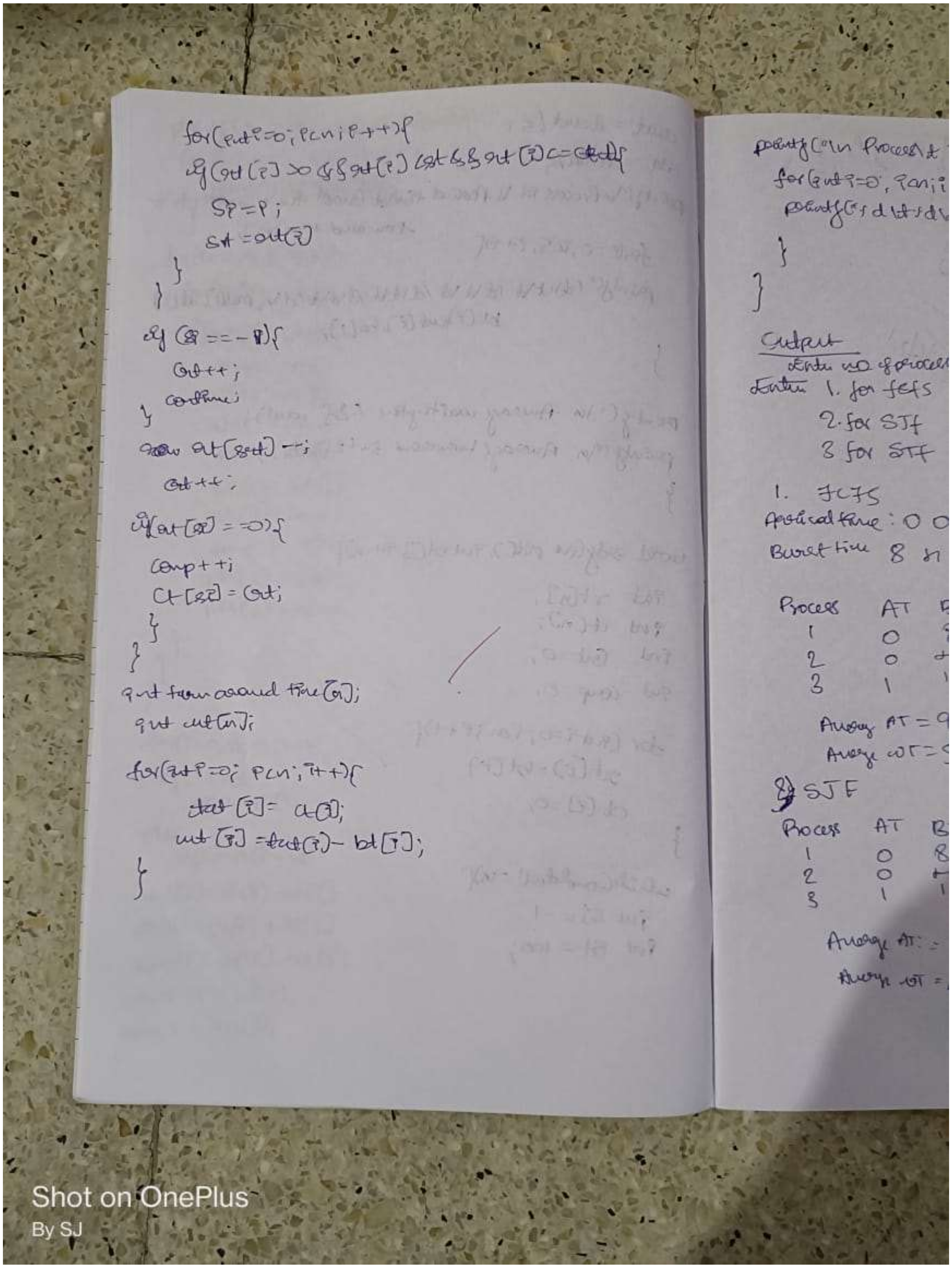
```
awt = towt /
ata = totta/5
printf("\nProcess i

  for(i=0;i<5;
  printf("%d\t

  }

printf("\n Av
printf("\n Av
}

void srtf(int p
 int rt[n];
 int ct[n];
 int cnt=0;
 int comp =0;

  for (int i=0;
      rt[i] =
      ct [i] =0;
}
while(completed
  int SI = -1
  int st= 10
```

Shot on OnePlus
By SJ



```
awt = dowt / 5;
ata = dotta/5
printf("\nProcess id \t Arrival time\t Burst time\t waiting time\t
                                        turnaround time\n");
  for(i=0;i<5;i++){
  printf("%d\t\t %d\t\t %d\t\t %d\t\t %d\n", pid[i], at[i]
                  bt[i], wt[i], ta[i]);
  }

printf("\n Average waiting time %.2f", awt);
printf("\n Average turnaround time %.2f", ata);
}

void srtf(int pid[], int bt[], int n){
 int rt[n];
 int ct[n];
 int Ct=0;
 int comp=0;
  for (int i=0; i<n; i++){
      rt[i]=bt[i]
      ct[i]=0;
}
 while(completed!=n){
  int si=-1
  int st=100;
```

Shot on OnePlus
By SJ

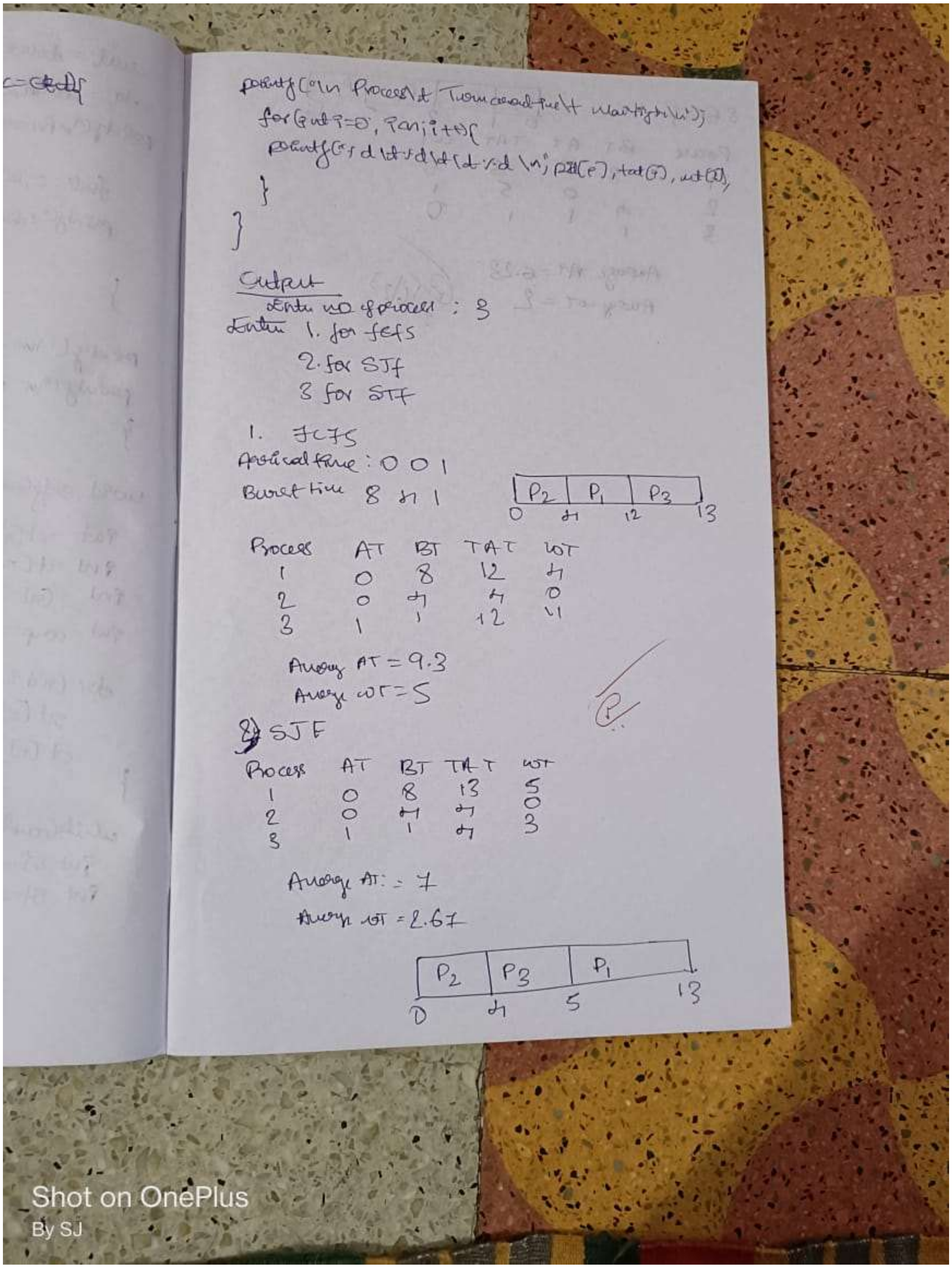


```
for(int i=0; i<n; i++){
 if(rt[i]>0 && rt[i]<st && at[i]<=ct){
   si=i;
   st=rt[i]
  }
 }
if (si==-1){
  ct++;
  continue;
}
now rt[si]--;
  ct++;
if(rt[si]==0){
  comp++;
  ct[si]=ct;
  }
}
int turnaround time[n];
int wt[n];

for(int i=0; i<n; i++){
    tat[i]= ct[i];
   wt[i] =tat[i]- bt[i];
}
```

```
printf("\n Process\t
  for(int i=0; i<n; i
   printf("%d\t%d\
   }
}
```

Output

```
   Enter no of process
Enter 1. for fcfs
      2. for SJf
      3 for STF

 1. FCFS
 Arrival time : 0 0
 Burst time  8 4

  Process   AT   B
    1       0
    2       0
    3       1

    Average AT = 9
    Average WT =
 2) SJF
  Process   AT   B
    1       0    8
    2       0    4
    3       1    1

     Average AT: =
     Average WT =
```



c=getch(

```
printf("\n Process\t Turnaroundtime\t Waitingtime\n");
 for(int i=0; i<n; i++){
  printf("%d\t%d\t%d \n", pid[i], tat[i], wt[i],
  }
}
```

Output

Enter no of process : 3

Enter 1. for fcfs

2. for SJf

3 for STF

1. FCFS

Arrival time : 0 0 1

Burst time 8 4 1

P2	P1	P3

0 4 12 13

Process	AT	BT	TAT	WT
1	0	8	12	4
2	0	4	4	0
3	1	1	12	11

Average AT = 9.3

Average WT = 5

2) SJF

Process	AT	BT	TAT	WT
1	0	8	13	5
2	0	4	4	0
3	1	1	4	3

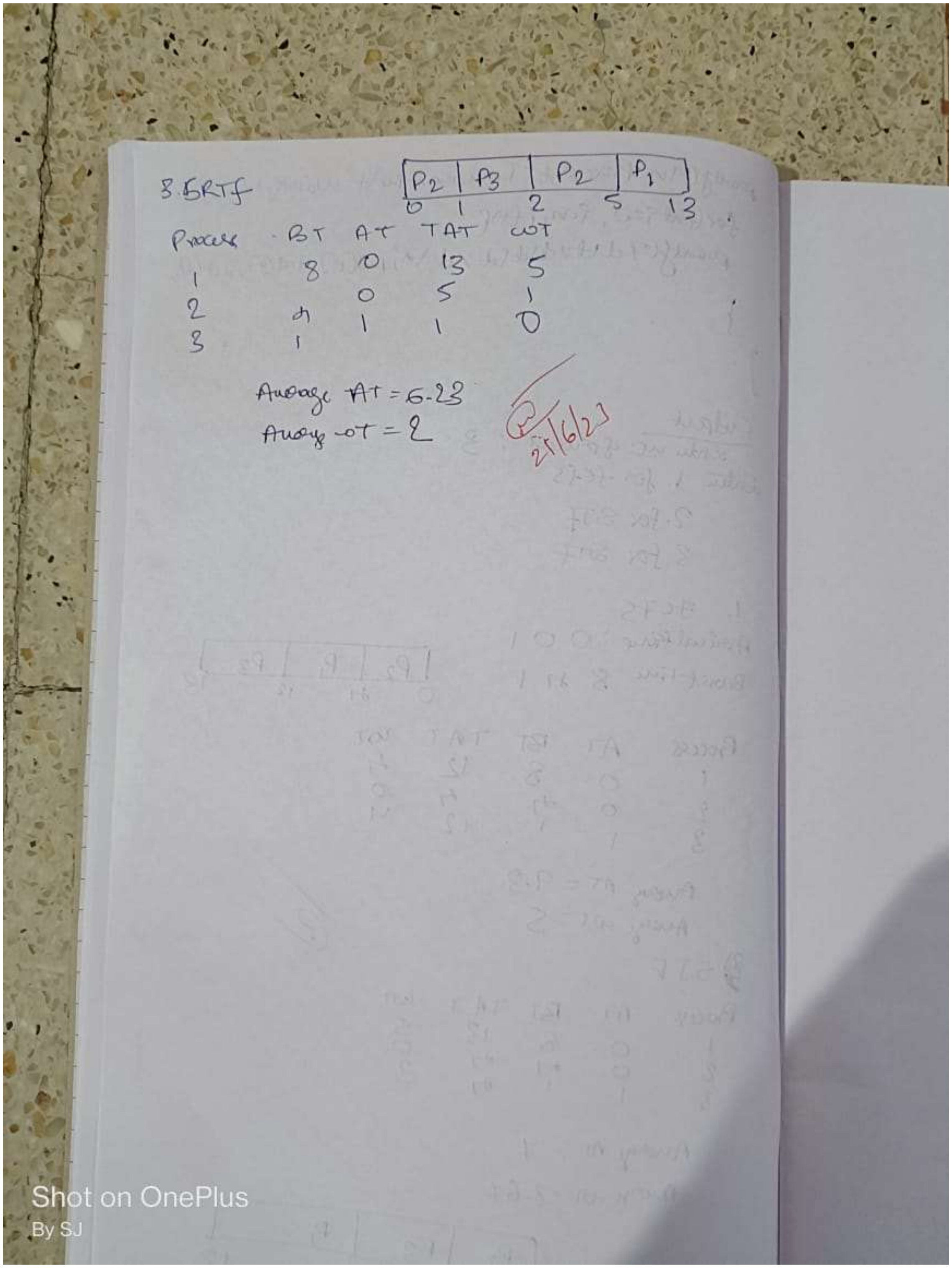
Average AT: = 7

Average WT = 2.67

P2	P3	P1

0 4 5 13

Shot on OnePlus
By SJ



3. SRTf

P2	P3	P2	P1

0 1 2 5 13

Process	BT	AT	TAT	WT
1	8	0	13	5
2	4	0	5	1
3	1	1	1	0

Average TAT = 6.23

Averg WT = 2

25/6/23

Shot on OnePlus
By SJ