#include<stdio.h>

Int main()

{

Int i, limit, total = 0, x, counter = 0, time\_quantum,j;

Int wait\_time = 0, turnaround\_time = 0,pos,z,p[10],prio[10], a\_time[10], b\_time[10], temp[10],b;

Float average\_wait\_time, average\_turnaround\_time;

Printf(“\nEnter Total Number of Processes:”);

Scanf(“%d”, &limit);

X = limit;

For(i = 0; i < limit; i++)

{

P[i]=i+1;

Prio[i]=0;

Printf(“\nEnter total Details of Process[%d]\n”, i + 1);

Printf(“Arrival Time:\t”);

Scanf(“%d”, &a\_time[i]);

Printf(“Burst Time:\t”);

Scanf(“%d”, &b\_time[i]);

Temp[i] = b\_time[i];

}

Printf(“\nEnter the Time Quantum:”);

Scanf(“%d”, &time\_quantum);

Printf(“\nProcess ID\t\tBurst Time\t Turnaround Time\t Waiting Time\t Priority\n”);

For(total = 0, i = 0; x != 0;)

{

For(z=0;z<limit;z++)

{

Int temp1;

Pos=z;

For(j=z+1;j<limit;j++)

{

If(prio[j]<prio[pos])

Pos=j;

}

Temp1=prio[z];

Prio[z]=prio[pos];

Prio[pos]=temp1;

Temp1=b\_time[z];

B\_time[z]=b\_time[pos];

B\_time[pos]=temp1;

Temp1=a\_time[z];

A\_time[z]=a\_time[pos];

A\_time[pos]=temp1;

Temp1=p[z];

P[z]=p[pos];

P[pos]=temp1;

Temp1=temp[z];

Temp[z]=temp[pos];

Temp[pos]=temp1;

}

{

}

If(temp[i] <= time\_quantum && temp[i] > 0)

{

Total = total + temp[i];

Temp[i] = 0;

Counter = 1;

}

Else if(temp[i] > 0)

{

Temp[i] = temp[i] – time\_quantum;

Total = total + time\_quantum;

}

For(b=0;b<limit;b++)

{

If(b==i)

Prio[b]+=1;

Else

Prio[b]+=2;

}

If(temp[i] == 0 && counter == 1)

{

x--;

printf(“\nProcess[%d]\t\t%d\t\t %d\t\t %d\t\t%d”, p[i], b\_time[i], total – a\_time[i], total – a\_time[i] – b\_time[i],prio[i]);

wait\_time = wait\_time + total – a\_time[i] – b\_time[i];

turnaround\_time = turnaround\_time + total – a\_time[i];

counter = 0;

}

If(i == limit – 1)

{

I = 0;

}

Else if(a\_time[i + 1] <= total)

{

I++;

}

Else

{

I = 0;

}

}

Return 0;

}