

Pritee Parwekar

### **/\*Priority Scheduling Algorithm\*/**

```
#include<stdio.h>
int main()
{
    int i,j,n,time,sum_wait=0,sum_turnaround=0,smallest;
    int at[10],bt[10],pt[10],rt[10],remain; //rt = remaining Time
    printf("Enter no of Processes : ");
    scanf("%d",&n);
    remain=n;
    for(i=0;i<n;i++)
    {
        printf("Enter arrival time, burst time and priority for process
p%d :",i+1);
        scanf("%d",&at[i]);
        scanf("%d",&bt[i]);
        scanf("%d",&pt[i]);
        rt[i]=bt[i];
    }
    pt[9]=11;
    printf("\n\nProcess\t|Turnaround time|waiting time\n");
    for(time=0;remain!=0;time++)
    {
        smallest=9;
        for(i=0;i<n;i++)
        {
            if(at[i]<=time && pt[i]<pt[smallest] && rt[i]>0)
            {
                smallest=i;
            }
        }
        rt[smallest]--;
        if(rt[smallest]==0)
        {
            remain--;
            printf("P[%d]\t|\t%d\t|\t%d\n",smallest+1,time+1-
at[smallest],time+1-at[smallest]-bt[smallest]);
            sum_wait+=time+1-at[smallest];
            sum_turnaround+=time+1-at[smallest]-bt[smallest];
        }
    }
    printf("\nAvg waiting time = %f\n",sum_wait*1.0/n);
    printf("Avg turnaround time = %f",sum_turnaround*1.0/n);
    return 0;
}
```