

Lab-Report

Report No: **09**

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Name of the lab report : Implementation of Priority Scheduling Algorithm.

Objective: Priority Scheduling algorithm Definition & executable code in c are followed.

Q.1 What is priority Scheduling algorithm?

Ans: Priorities can be either dynamic or static. Static priorities are allocated during creation, whereas dynamic priorities are assigned depending on the behavior of the processes while in the system. To illustrate, the scheduler could favor input/output (I/O) intensive tasks, which lets expensive requests to be issued as soon as possible.

Q.2 How to implemented in C?

Ans:

```
#include <stdio.h> int
main()
{

    int b[30],w[30],p[30],ta[30],p[40];

    float av=0,avt=0;

    int i,j,n,temp,key;

    printf("\nEnter the number of the processes: ");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        printf("\nEnter the burst time and priority of the process P[%d]: ",i);

        scanf("%d",&b[i]);
```

```

scanf("%d",&p[i]);

    p[i]=i;

}

for(i=0; i<n; i++)
{
    key=i;
for(j=i+1; j<n; j++)
{
    if(p [j]<p [key])
    {
key=j;
    }
}
    temp=b[i];
b[i]=b[key];
b[key]=temp;

    temp=p [i];

    p [i]=p [key];

    p [key]=temp;

}

```

```
w[0]=0;

ta[0]=b[0];

avt=ta[0];


for(i=1; i<n; i++)
{

    w[i]=w[i-1]+b[i-1];

    ta[i]=ta[i-1]+b[i];

    avt+=w[i];

    avt+=ta[i];

}

avwt=avwt/n;
avtat=avtat/n;


printf("\n\nPROCESS\t\twaiting time\tburst time\tTurnaround time\n");
printf("\n");


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

    printf("P[%d]\t\t%d\t\t%d\t\t%d\n",p[i],wt[i],bt[i],tat[i]);

}
```

```

    printf("\n\nAverage waiting time: %.2f",avwt);

printf("\n\nAverage Turn around time is: %.2f",avtat);

    printf("\n");

    return 0;

}

```

Output:

```

Enter the number of the processes: 3
Enter the burst time and priority of the process P[1]: 11 3
Enter the burst time and priority of the process P[2]: 23 2
Enter the burst time and priority of the process P[3]: 10 5
.
PROCESS      waiting time    burst time    Turnaround time
P[2]          0                23            23
P[1]          23                11            34
P[6684672]    34                1975796508    1975796542

Average waiting time: 19.00
Average Turn around time is: 658598848.00
Process returned 0 (0x0)   execution time : 16.082 s
Press any key to continue.

```