

## **Round Robin**

```
import java.util.Scanner;

public class RoundRobin
{
    public static void main(String args[])
    {
        int n,i,qt,count=0,temp,sq=0,bt[],wt[],tat[],rem_bt[];
        float awt=0,atat=0;
        bt = new int[10];
        wt = new int[10];
        tat = new int[10];
        rem_bt = new int[10];
        Scanner s=new Scanner(System.in);
        System.out.print("Enter the number of process (maximum 10) = ");
        n = s.nextInt();
        System.out.print("Enter the burst time of the process\n");
        for (i=0;i<n;i++)
        {
            System.out.print("P"+i+" = ");
            bt[i] = s.nextInt();
            rem_bt[i] = bt[i];
        }
        System.out.print("Enter the quantum time: ");
        qt = s.nextInt();
        while(true)
        {
            for (i=0,count=0;i<n;i++)
            {
                temp = qt;
```

```

if(rem_bt[i] == 0)
{
count++;
continue;
}
if(rem_bt[i]>qt)
rem_bt[i]= rem_bt[i] - qt;
else
if(rem_bt[i]>=0)
{
temp = rem_bt[i];
rem_bt[i] = 0;
}
sq = sq + temp;
tat[i] = sq;
}
if(n == count)
break;
}
System.out.print("-----");
System.out.print("\nProcess\t    Burst Time\t    Turnaround Time\t    Waiting Time\n");
System.out.print("-----");
for(i=0;i<n;i++)
{
wt[i]=tat[i]-bt[i];
awt=awt+wt[i];
atat=atat+tat[i];
System.out.print("\n "+(i+1)+"\t "+bt[i)+"\t\t "+tat[i)+"\t\t "+wt[i)+"\n");
}

```

```

awt=awt/n;

atat=atat/n;

System.out.println("\nAverage waiting Time = "+awt+"\n");

System.out.println("Average turnaround time = "+atat);

}

}

```

```

eclipse-workspace - fctf/src/roundrobin.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console X Debug
<terminated> roundrobin [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (26-Sep-2022, 11:36:12 am - 11:39:00 am) [pid: 16372]
Enter the number of process (maximum 10) = 6
Enter the burst time of the process
P0 = 6
P1 = 34
P2 = 23
P3 = 45
P4 = 90
P5 = 12
Enter the quantum time: 5
-----
Process   Burst Time   Turnaround Time   Waiting Time
-----
1         6           31                25
2         34          135               101
3         23          106               83
4         45          160               115
5         90          210               120
6         12          78                66
Average waiting Time = 85.0
Average turnaround time = 120.0

```