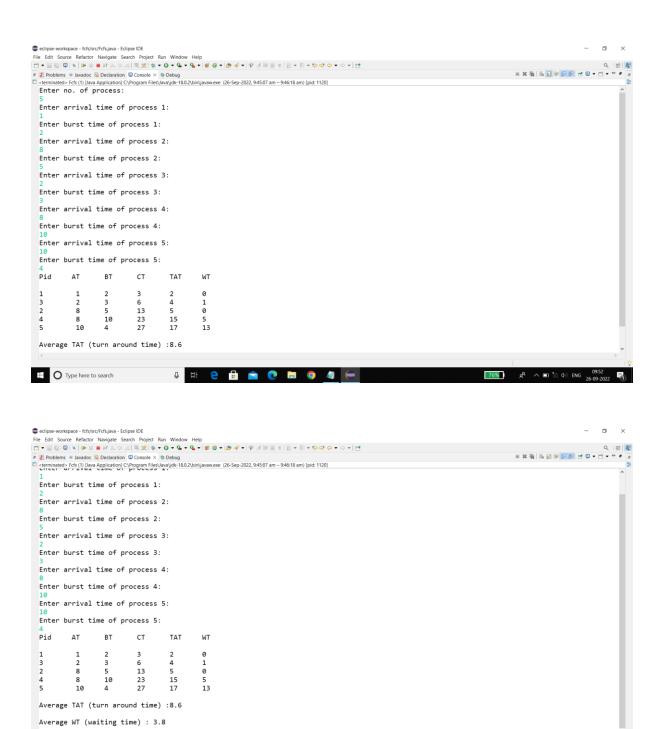## FCFS

```java
import java.util.*;
public class fcfs
{
	public static void main(String args[])
	{
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter no. of process: ");
		int n=sc.nextInt();
		int pid[]=new int[n];
		int at[]=new int[n];
		int bt[]=new int[n];
		int ct[]=new int[n];
		int tat[]=new int[n];
		int wt[]=new int[n];
		int temp;
		float avg_wt=0,avg_tat=0;

		for(int i=0; i<n; i++)
		{
			System.out.println("Enter arrival time of process " +(i+1)+ ":");
			at[i]=sc.nextInt();
			System.out.println("Enter burst time of process " +(i+1)+ ":");
			bt[i]=sc.nextInt();
			pid[i]=i+1;
		}

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

```
for(int j=0;  j< n-(i+1) ; j++)
{
        if(at[j] > at[j+1] )
        {
                temp = at[j];
                at[j] = at[j+1];
                at[j+1] = temp;
                temp = bt[j];
                bt[j] = bt[j+1];
                bt[j+1] = temp;
                temp = pid[j];
                pid[j] = pid[j+1];
                pid[j+1] = temp;
        }
    }
}

for(int i=0 ; i<n; i++)
{
    if( i == 0)
    {
        ct[i]= at[i]+bt[i];
    }
    else
    {
        if( at[i]>ct[i-1])
        {
                ct[i]= at[i] +bt[i];
        }
```

```java
            else
                    ct[i]= ct[i-1] +bt[i];
            }
            tat[i] = ct[i] - at[i] ;
            wt[i] = tat[i] - bt[i] ;
            avg_wt += wt[i] ;
            avg_tat += tat[i] ;
        }


        System.out.println("Pid\tAT\tBT\tCT\tTAT\tWT\n");
        for(int i=0 ; i<n; i++)
        {
                System.out.println(pid[i] + "  \t " + at[i] + "\t" + bt[i] + "\t" + ct[i] + "\t"
+ tat[i] + "\t"  + wt[i] ) ;
        }
        System.out.println("\nAverage TAT (turn around time) :"+(avg_tat/n));
        System.out.println("\nAverage WT (waiting time) : "+ (avg_wt/n));


        sc.close();
    }

}
```

eclipse-workspace - fcfs/src/Fcfs.java - Eclipse IDE

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Problems Javadoc Declaration Console × Debug
<terminated> Fcfs (1) [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (26-Sep-2022, 9:45:07 am – 9:46:18 am) [pid: 1120]

```
Enter no. of process:
5
Enter arrival time of process 1:
1
Enter burst time of process 1:
2
Enter arrival time of process 2:
8
Enter burst time of process 2:
5
Enter arrival time of process 3:
2
Enter burst time of process 3:
3
Enter arrival time of process 4:
8
Enter burst time of process 4:
10
Enter arrival time of process 5:
10
Enter burst time of process 5:
4
Pid     AT      BT      CT      TAT     WT

1       1       2       3       2       0
3       2       3       6       4       1
2       8       5       13      5       0
4       8       10      23      15      5
5       10      4       27      17      13

Average TAT (turn around time) :8.6
```

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File Edit Source Refactor Navigate Search Project Run Window Help

Problems Javadoc Declaration Console × Debug
<terminated> Fcfs (1) [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (26-Sep-2022, 9:45:07 am – 9:46:18 am) [pid: 1120]

```
Enter arrival time of process 1:
1
Enter burst time of process 1:
2
Enter arrival time of process 2:
8
Enter burst time of process 2:
5
Enter arrival time of process 3:
2
Enter burst time of process 3:
3
Enter arrival time of process 4:
8
Enter burst time of process 4:
10
Enter arrival time of process 5:
10
Enter burst time of process 5:
4
Pid     AT      BT      CT      TAT     WT

1       1       2       3       2       0
3       2       3       6       4       1
2       8       5       13      5       0
4       8       10      23      15      5
5       10      4       27      17      13

Average TAT (turn around time) :8.6

Average WT (waiting time) : 3.8
```