

Implementation code:

```
#include <bits/stdc++.h>
using namespace std;
#define ll long long int
#define db double
int n;
vector<int> p(n), at(n), bt(n);
void input_view()
{
    cout << "Process    " << "Arrival_Time(AT)    " << "Burst_Time(BT)" << endl;
    for (int i = 0; i < n; i++)
    {
        cout << "    P" << p[i] << "\t\t" << at[i] << " \t\t" << bt[i] << endl;
    }
}
int main()
{
    cout << "Enter the number of process: ";
    cin >> n;

    cout << "Enter Arrival Time(AT) for " << n << " processes: ";
    for (int i = 0; i < n; i++)
    {
        int x;
        cin >> x;
        at.push_back(x);
        p.push_back(i + 1);
    }

    cout << "Enter Burst Time(BT) for " << n << " processes: ";
    for (int i = 0; i < n; i++)
    {
        int x;
        cin >> x;
        bt.push_back(x);
    }

    // inputs visible
    cout << endl
        << "\t View of inputs:" << endl;
    input_view();

    // sorting process according to AT.
    for (int i = 0; i < n; i++)
```

```

{
    for (int j = 0; j < n; j++)
    {
        if (at[j] > at[j+1])
        {
            swap(p[i], p[j]);
            swap(at[i], at[j]);
            swap(bt[i], bt[j]);
        }
    }
}

// view of inputs after sorting
cout << endl
    << "\t After sorting, View of inputs:" << endl;
input_view();

vector<int> ct(n), tat(n), wt(n), rt(n);

// calculation of CT,TAT,WT,RT
int sum = at[0];
rt[0] = at[0];
for (int i = 0; i < n; i++)
{
    ct[i] = sum + bt[i];
    sum = ct[i];

    tat[i] = ct[i] - at[i];

    wt[i] = tat[i] - bt[i];

    rt[i + 1] = ct[i] - at[i + 1];
}

// Grand Chart
cout << endl
    << "\t Grand Chart: " << endl
    << endl;
for (int i = 0; i < n; i++)
{
    cout << "|    P" << p[i] << "    ";
}
cout << " |" << endl;
cout << at[0];
for (int i = 0; i < n; i++)

```

```

{
    cout << "\t" << ct[i];
}
// forming according to processes like(p1,p2,p3...)
for (int i = 0; i < n; i++)
{
    for (int j = 0; j < n; j++)
    {
        if (p[i] < p[j])
        {
            swap(p[i], p[j]);
            swap(at[i], at[j]);
            swap(bt[i], bt[j]);
            swap(ct[i], ct[j]);
            swap(tat[i], tat[j]);
            swap(wt[i], wt[j]);
            swap(rt[i], rt[j]);
        }
    }
}
// Final result
cout << endl
    << endl
    << "\t Final result:" << endl
    << endl;
cout << "Pro.\t" << "AT\t" << "BT\t" << "CT\t" << "TAT\t" << "WT\t" << "RT\t"
<< endl;
for (int i = 0; i < n; i++)
{
    cout << "P" << p[i] << "\t" << at[i] << "\t" << bt[i] << "\t" << ct[i]
        << "\t" << tat[i] << "\t" << wt[i] << "\t" << rt[i] << endl;
}
return 0;
}

```

Result Analysis:

```
Enter the number of process: 3
Enter Arrival Time(AT) for 3 times: 2 0 4
Enter Burst Time(BT) for 3 times: 5 3 4
```

View of inputs:

Process	Arrival_Time(AT)	Burst_Time(BT)
P1	2	5
P2	0	3
P3	4	4

After sorting, View of inputs:

Process	Arrival_Time(AT)	Burst_Time(BT)
P2	0	3
P1	2	5
P3	4	4

Grand Chart:

	P2		P1		P3	
0		3		8		12

Final result:

Pro.	AT	BT	CT	TAT	WT	RT
P1	2	5	8	6	1	1
P2	0	3	3	3	0	0
P3	4	4	12	8	4	4