

First fit!

```
#include <iostream>
#include <string>
using namespace std;

class Partition {
public:
    int size;
    int index;

    Partition() {
        size = 0;
        index = -1;
    }

    Partition(int s, int i) {
        size = s;
        index = i;
    }
};

class Process {
public:
    int size;
    int partition_index;
    int waste;

    Process() {
        size = 0;
        partition_index = -1;
        waste = -1;
    }

    Process(int s) {
        size = s;
        partition_index = -1;
        waste = -1;
    }
};

class MemoryManager {
private:
    int num_processes;
    int num_partitions;
    Partition* partitions;
    Process* processes;

    Number of chosen processes: 5
    Number of chosen partitions: 4
    Size of partition 1: 100
    Size of partition 2: 300
    Size of partition 3: 200
    Size of partition 4: 450
    Size of process 1: 200
    Size of process 2: 100
    Size of process 3: 300
    Size of process 4: 300
    Size of process 5: 200

    Jobs    Partitions    Status    Waste    num
    1        2            Run        100
    2        1            Run        0
    3        4            Run        150
    4        -            Wait       -
    5        3            Run        0

    Total Waste: 250

    C:\Users\Eyad\source\repos\firsst fit\Debug\firsst fit.exe (process 32296) exited with code 0.
    To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
```

Next fit!

```
Microsoft Visual Studio Debug Console

number of chosen processes: 5
size of process 1: 200
size of process 2: 100
size of process 3: 300
size of process 4: 300
size of process 5: 200
number of partitions: 4
size of partition 1: 100
size of partition 2: 300
size of partition 3: 200
size of partition 4: 450
Job    Partition ID    Status    Waste amount
1        2            Run        100
2        3            Run        100
3        4            Run        150
4        -            Wait       -
5        -            Wait       -
Total Waste: 350

C:\Users\Eyad\source\repos\nexxt fit\Debug\nexxt fit.exe (process 22632) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
```

Best fit!

input

```
number of processes: 5
size of process 1: 200
size of process 2: 100
size of process 3: 300
size of process 4: 300
size of process 5: 200

number of partitions: 4
size of partition 1: 100
size of partition 2: 300
size of partition 3: 200
size of partition 4: 450
```

Job	Partition ID	Status	Waste amount
1	3	Run	0
2	1	Run	0
3	2	Run	0
4	4	Run	150
5	-	Wait	-

Total Waste: 150

Worst fit!

```
Microsoft Visual Studio Debug Console

number of processes: 5
size of process 1: 200
size of process 2: 100
size of process 3: 300
size of process 4: 300
size of process 5: 200

number of partitions: 4
size of partition 1: 100
size of partition 2: 300
size of partition 3: 200
size of partition 4: 450

Worst Fit Algorithm
```

Jobs	Partition ID	Status	Waste amount
1	4	Run	250
2	2	Run	200
3	-	Wait	-
4	-	Wait	-
5	4	Run	50