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Multi_Queue Problem.cpp - Code::Blocks 20.03
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"D:\CSE\Algorithm_Lab\A_N_S_30_383\Multi_Queue Problem.exe"
Enter the number of people getting services : 5
Input Entry time and Service time :
E-T S-T
1 12 6
2 14 3
3 20 7
4 18 4
5 26 9
First Queue : 1 4
Second Queue : 2 3 5
Process returned 0 (0x0) execution time : 4.015 s
Press any key to continue.
```

```
D:\CSE\Algorithm_Lab\A_N_S_30_383\bookself_problem.exe
1 5 9 3 5 7 4 5 6 2
7 8 9 3 6 9 1 2 3 4
2 5 8 9 6 3 1 4 7 5
1 5 9 3 6 2 5 8 7 4
1 5 9 8 5 2 3 6 4 7
1 5 8 4 5 6 9 3 2 5
1 2 5 3 6 9 5 4 2 8
2 5 6 9 3 2 5 1 5 9
1 5 9 3 2 5 8 7 4 2
Before searching :
1 5 9 3 5 7 4 5 6 2
7 8 9 3 6 9 1 2 3 4
2 5 8 9 6 3 1 4 7 5
1 5 9 3 6 2 5 8 7 4
1 5 9 8 5 2 3 6 4 7
1 5 8 4 5 6 9 3 2 5
1 2 5 3 6 9 5 4 2 8
2 5 6 9 3 2 5 1 5 9
1 5 9 3 2 5 8 7 4 2
After searching :
1 1 1 1 1 1 1 1 1 1
7 8 9 3 6 9 5 2 3 4
2 5 8 9 6 3 9 4 7 5
3 5 9 3 6 2 5 8 7 4
5 5 9 8 5 2 3 6 4 7
7 5 8 4 5 6 9 3 2 5
4 2 5 3 6 9 5 4 2 8
2 5 6 9 3 2 5 5 5 9
6 5 9 3 2 5 8 7 4 2
```

```
LIS N^2.cpp - Code::Blocks 20.03
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"D:\CSE\Algorithm_Lab\A_N_S_30_383\LIS N^2.exe"
Enter the Number of elements: 9
1 2 6 5 7 5 6 9 10
Length of LIS is : 5
The Longest Increasing Sequence is : 2 5 6 9 10
Process returned 0 (0x0) execution time : 18.375 s
Press any key to continue.
```

LIS nlogn.cpp - Code::Blocks 20.03

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"D:\CSE\Algorithm_Lab\A_N_S_30_383\LIS nlogn.exe"

```
Enter the Number of elements: 8
6 1 4 3 2 7 5 8
Length of LIS is : 4
The Longest Increasing Sequence is : 1 2 5 8
Process returned 0 (0x0)  execution time : 7.781 s
Press any key to continue.
```

Knapsack.cpp - Code::Blocks 20.03

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D:\CSE\Algorithm_Lab\A_N_S_30_383\Knapsack.exe

```
5 7
4 6
3 5
2 4
7 9
2 11
Maximum Profit is : 20
Selected Items no. are : 5 3 2
Process returned 0 (0x0)  execution time : 23.719 s
Press any key to continue.
```

Number of way to become k using n coins.cpp - Code::Blocks 20.03

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"D:\CSE\Algorithm_Lab\A_N_S_30_383\Number of way to become k using n coins.exe"

```
3 8
1 3 5
Total ways to make 8 using given coins: 5
Process returned 0 (0x0)  execution time : 5.718 s
Press any key to continue.
```

minimun number of coin.cpp - Code::Blocks 20.03

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"D:\CSE\Algorithm_Lab\A_N_S_30_383\minimun number of coin.exe"

```
3 8
1 3 5
Minimum number of coid required is 2

Process returned 0 (0x0)   execution time : 7.032 s
Press any key to continue.
```

1-Subset sub problem.cpp - Code::Blocks 20.03

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"D:\CSE\Algorithm_Lab\A_N_S_30_383\1-Subset sub problem.exe"

```
Enter the number of element : 4
2 1 4 3
Enter the wanting values: 5
4 1
3 2

Process returned 0 (0x0)   execution time : 16.749 s
Press any key to continue.
```

In time and out time using dfs.cpp - Code::Blocks 20.03

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"D:\CSE\Algorithm_Lab\A_N_S_30_383\In time and out time using dfs.exe"

```
7 6
1 2
<global>: 1 3
2 4
2 5
3 6
3 7
DFS :- 1 -> 2 -> 4 -> 5 -> 3 -> 6 -> 7 ->
Node    InTime and OutTime:
1        1        14
2        2         7
3        8       13
4        3         4
5        5         6
6        9       10
7       11       12

Process returned 0 (0x0)   execution time : 2.422 s
Press any key to continue.
```

```
<global>
D:\CSE\Algorithm_Lab\A_N_S_30_383\Topological Sort using dfs.exe
*knapack problem d
6 6
42 6 3
43 6 1
44 4 1
45 4 2
46 3 4
47 4 2
48 DFS :- 0 -> 1 -> 2 -> 3 -> 4 -> 5 -> 6 ->
49 Node InTime and OutTime:
50 0 1 2
51 1 3 4
52 2 5 6
53 3 7 10
54 4 8 9
55 5 11 12
56 6 13 14
57 Topological Sort : 6 5 3 4 2 1 0
58 Process returned 0 (0x0) execution time : 1.969 s
Press any key to continue.
```

```
SCC.cpp - Code::Blocks 20.03
D:\CSE\Algorithm_Lab\A_N_S_30_383\SCC.exe
10 16
1 2
1 6
2 7
2 3
3 4
3 8
4 5
4 10
4 9
4 8
5 10
6 7
7 1
8 3
9 10
10 5
Strongly Connected Components:
1 1 7 2 6
1 3 8 4
1 9
1 5 10
1
Process returned 0 (0x0) execution time : 2.812 s
Press any key to continue.
```

```
Dijkstra.cpp - Code::Blocks 20.03
D:\CSE\Algorithm_Lab\A_N_S_30_383\Dijkstra.exe
5 9
1 2 7
1 4 2
2 4 2
4 2 3
2 3 1
4 3 8
4 5 5
3 5 4
5 3 5
For node 1: (2,7) (4,2)
For node 2: (1,7) (4,2) (4,3) (3,1)
For node 3: (2,1) (4,8) (5,4) (5,5)
For node 4: (1,2) (2,2) (2,3) (3,8) (5,5)
For node 5: (4,5) (3,4) (3,5)
1 0 0
2 4 4
3 5 2
4 2 1
5 7 4
Process returned 0 (0x0) execution time : 3.297 s
Press any key to continue.
```

D:\CSE\Algorithm_Lab\A_N_S_30_383\MST.exe

```
9 14
1 2 4
1 8 8
2 3 8
2 8 11
3 4 7
3 6 4
3 9 2
4 5 9
4 6 14
5 6 10
6 7 2
7 8 1
7 9 6
8 9 7
For node 1: (2,4 )(8,8 )
For node 2: (3,8 )(8,11 )
For node 3: (4,7 )(6,4 )(9,2 )
For node 4: (5,9 )(6,14 )
For node 5: (6,10 )
For node 6: (7,2 )
For node 7: (8,1 )(9,6 )
For node 8: (9,7 )
For node 9:
The minimum spanning tree edges and their corresponding minimum distances:
1 - 2 : 4
2 - 3 : 8
3 - 4 : 7
4 - 5 : 9
3 - 6 : 4
6 - 7 : 2
7 - 8 : 1
3 - 9 : 2
The total minimum distance: 37
```

"D:\CSE\Algorithm_Lab\A_N_S_30_383\Kruskal 01.exe"

```
9 14
g h 1
c i 2
f g 2
a b 4
c f 4
g i 6
c d 7
i h 7
a h 8
b c 8
d e 9
e f 10
b h 11
d f 14
Edge(g, h), --> 1
Edge(c, i), --> 2
Edge(f, g), --> 2
Edge(a, b), --> 4
Edge(c, f), --> 4
Edge between g i Ignored
Edge(c, d), --> 7
Edge between h i Ignored
Edge(a, h), --> 8
Edge between b c Ignored
Edge(d, e), --> 9
Edge between e f Ignored
Edge between b h Ignored
Edge between d f Ignored
Total cost = 37

Process returned 0 (0x0)   execution time : 1.156 s
Press any key to continue.
```

huffman.cpp - Code::Blocks 20.03

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D:\CSE\Algorithm_Lab\A_N_S_30_383\huffman.exe

```
6
<global> a b c d e f
45 13 12 16 9 5
a : 0
c : 100
b : 101
f : 1100
e : 1101
d : 111

Process returned 0 (0x0)   execution time : 29.438 s
Press any key to continue.
```

```
The greedy coin changing algorithm.cpp - Code::Blocks 20.03
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Settings Help
"\"D:\\CSE\\Algorithm_Lab\\A_N_S_30_383\\The greedy coin changing algorithm.exe"
<global>
Enter the number of coin :5
1 5 10 25 100
2 Enter the paying amount : 654
3
4
5
6
7
8
9
10
11
Subset Sum
1 Total Number Of coin needed: 12
2 Coins are :
3 1->4 ta
4 25->2 ta
5 100->6 ta
6 Process returned 0 (0x0) execution time : 6.077 s
7 Press any key to continue.
8
9
10
11
```

```
knapsack problem.cpp - Code::Blocks 20.03
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Settings Help
"\"D:\\CSE\\Algorithm_Lab\\A_N_S_30_383\\knapsack problem.exe"
Enter the number of Items : 5
Enter the positive benefits one by one : 12 32 40 30 50
Enter the positive weight one by one : 4 8 2 6 1
Enter the capacity of knapsack :10
Total Profit : 124
Process returned 0 (0x0) execution time : 35.254 s
Press any key to continue.
```

```
"\"D:\\CSE\\Algorithm_Lab\\A_N_S_30_383\\An Activity Selection Problem.exe"
The greedy coin chan
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
Enter total number of conference: 11
Enter start & finish time:
1 4
3 5
0 6
5 7
3 8
5 9
6 10
8 11
8 12
2 13
12 14
activities are selected:
1 4
5 7
8 11
12 14
```