

IT LAB - M.TECH CS

Lab - 7

October 22, 2019

Strongly Connected Components:

1. Write a program to implement the algorithm based on DFS to obtain the strongly connected components(SCC) in a directed graph. Implement the algorithm using a function for DFS.
2. The program is run using command line arguments with the first argument as the input file name and the second argument as the output file name.
For example: `./scc input.txt output.txt`

Input: Input is given in a file with first line containing number of vertices followed by the number of edges followed by the graph given as an edge list.

```
n
m
u v w(u,v)
```

Output: Number of the strongly connected components followed by each line containing the vertices of one SCC.

Example:

Input:

```
7
9
1 2
1 4
2 3
3 1
3 5
4 3
5 6
5 7
6 7
```

Output:

```
4
1 2 3 4
5
6
7
```

Submit the assignment in the google class room page