

CS 430 Project Description

Introduction

CS430 project creates an application program to find either minimum spanning tree or shortest path.

This project can be done by an individual or a team basis (same as previous HW team). You can use any algorithms that the textbook describes or other resource you can study. Easier one is better.

If individual project, choose one algorithm.

If team project, implement both MST and SP using the same matrix in a program. Add menu to select which algorithm to product result.

Objective

self-study for the two topics: minimum spanning tree and shortest path algorithm.

Sample Input

1) Sample topology Diagram:

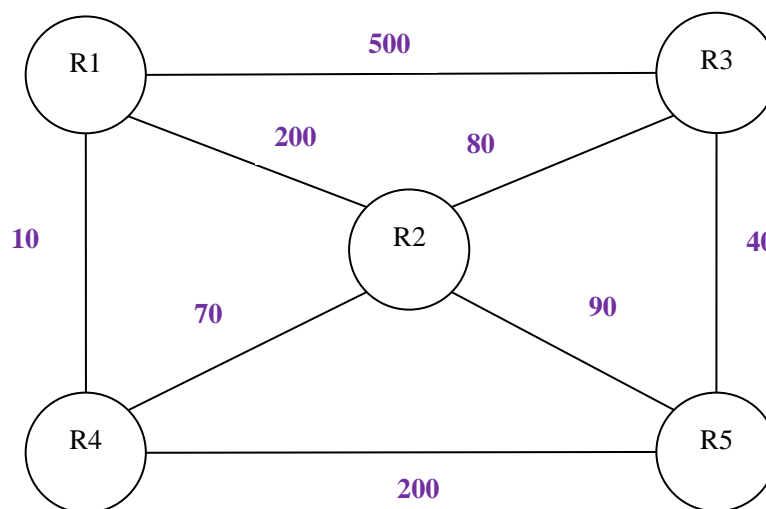


Figure: A sample topology with costs on links

	R1	R2	R3	R4	R5
R1	0	200	500	10	-1
R2	200	0	80	70	90
R3	50	80	0	-1	40
R4	10	70	-1	0	20
R5	-1	90	40	20	0

Table: A sample original topology matrix

Free design, free operation so you need to add instructions how to run your program in the source code.

JAVA or Python

Due date: 5/5/2020 Tuesday 23:59 US Central Time

Earlier submission by 5/2 Saturday can get 10% extra credit.