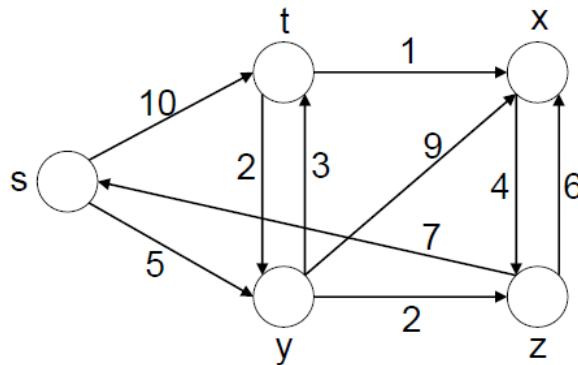
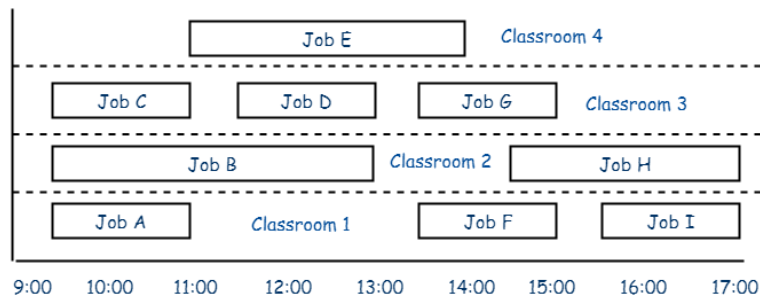


CS620: Applied Algorithms, Fall 2018
Weisberg Division of Computer Science, Marshall University
Assignment 05
Total Points: 50
Due: 4:00 p.m., Oct 29

1. Implement Dijkstra's algorithm on the following graph, first using **vertex S** as the source and then using **vertex Z** as the source.
 - (a) Show the **distance d** from source (vertex S and Z) to each other vertices. [15 pts]
 - (b) Show the **path** from source (vertex S and Z) to each other vertices. [15 pts]



2. Implement interval partitioning algorithm on following figure. Your algorithm should display how many classrooms are required and which job has been scheduled in which classroom. [20 pts]



(Note 1: For all questions, please use hard coding, which means you can provide the input in the program. Please do not ask user to enter any value. Please let me know if you have any question. Thanks.)

(Note 2: For each question, you only submit one source file. In this assignment, we have two questions, so you will submit two source files on Blackboard. The programming language does not matter. Please let me know if you have any question. Thanks.)