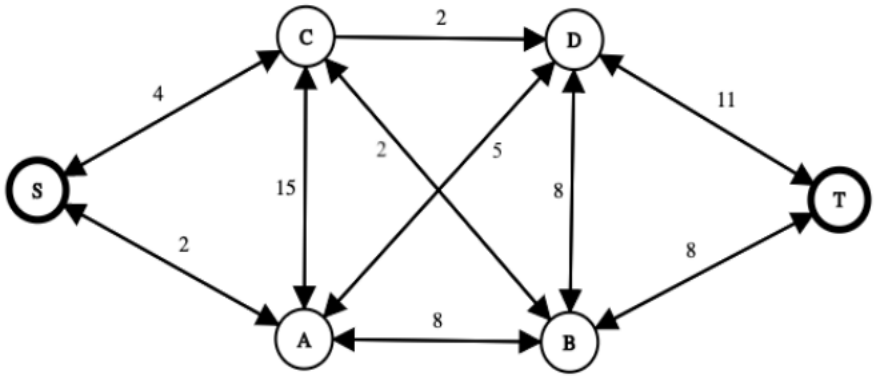
Project 1: Search Techniques

Learning objectives:

- Search Techniques

Background

Consider the search space shown in the following graph. Note that S is the initial state and T is the goal state. The cost of each edge has been labeled on the graph.



- Part A – Hand demonstration
  - Calculate the shortest path from Starting node **S** to final node **T**

- Part B – Programming demonstration
  - Implement DFS and BFS and draw the search paths.
  - Report for each search approach the number of nodes visited.
- Deliverables
  - Project report (3-4 pages) describing results of your experiments and your implementation. Which algorithm was faster in finding the target? How long did it take (time and transitions)?
  - Well-commented source code for your project. You can use any language you like, but I reserve the right to ask you to demo performance of your algorithm on a new dataset.
  - You don't have to include a GUI with visual representation of the solutions for this project, but it might be useful for your future projects in this course.