

ITCT 241: Computational Problem Solving	Name: Teerathad U.	Lab Score
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### Lab10: Floyd's algorithm

In this lab, you will learn how to use the Floyd's algorithm to update an adjacency matrix, determining the transitive closure of a graph. The transitive closure shows all possible paths between nodes in a directed graph.

#### Task Instruction:

Below is the initial adjacency matrix representing a graph with nodes **A, B, C, D**, and **E**. Each cell  $(i, j)$  in the matrix represents whether there is a direct path from node  $i$  to node  $j$ . (1 for a direct path, 0 for no direct path). For example:  $(A, D) = 70$  means node A can reach node D with cost 70.

1. Update the following **adjacency matrix**:

	A	B	C	D	E
A		80	110	70	140
B	40		30	50	120
C	70	30		20	90
D	50	10	40		70
E	90	50	40	60	

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2. Draw the Graph (after update).

