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Lab 15: All Pairs Shortest Path Algorithms

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$$L^{(1)} = \begin{bmatrix} \infty & 10 & \infty & \infty & 1 \\ 4 & \infty & \infty & 2 & \infty \\ \infty & 1 & \infty & \infty & \infty \\ \infty & 4 & 2 & \infty & \infty \\ \infty & \infty & 7 & 2 & \infty \end{bmatrix}$$

$\delta(a, b) = 10$
$\delta(d, e) = \infty$

$$L^{(2)} = \begin{bmatrix} 14 & 10 & 8 & 3 & 1 \\ 4 & 6 & 4 & 2 & 5 \\ 5 & 1 & \infty & 3 & \infty \\ 8 & 4 & 2 & 6 & \infty \\ \infty & 6 & 4 & 2 & \infty \end{bmatrix}$$

$\delta(a, b) = 10$
$\delta(d, e) = \infty$

$$L^{(3)} = \begin{bmatrix} 14 & 7 & 5 & 3 & 1 \\ 4 & 6 & 4 & 2 & 5 \\ 5 & 1 & 5 & 3 & 6 \\ 7 & 4 & 2 & 5 & 9 \\ 10 & 5 & 4 & 2 & \infty \end{bmatrix}$$

$\delta(a, b) = 7$
$\delta(d, e) = 9$

$$L^{(4)} = \begin{bmatrix} 11 & 6 & 5 & 3 & 1 \\ 4 & 6 & 4 & 2 & 5 \\ 5 & 1 & 5 & 3 & 6 \\ 7 & 4 & 2 & 5 & 8 \\ 9 & 5 & 4 & 2 & 11 \end{bmatrix}$$

$\delta(a, b) = 6$
$\delta(d, e) = 8$