Dennis Kuzminer

CSCI-UA 310-001 PS3b

1. After Initialization:

$$d = [0, \infty, \infty, \infty, \infty, \infty]$$

$$\pi = [Nil, Nil, Nil, Nil, Nil, Nil]$$

$$R = \emptyset$$

$$Q = A$$

First Loop:

$$d = [0, 2, 6, \infty, \infty, \infty]$$

$$\pi = [\mathit{Nil}, \mathit{A}, \mathit{A}, \mathit{Nil}, \mathit{Nil}, \mathit{Nil}]$$

$$R = A$$

$$Q = B, C$$

Second Loop:

$$d = [0, 2, 3, 11, \infty, 13]$$

$$\pi = [Nil, A, B, B, Nil, B]$$

$$R = A, B$$

$$Q = C, D, F$$

Third Loop

$$d = [0, 2, 3, 11, 6, 13]$$

$$\pi = [Nil, A, B, B, C, B]$$

$$R = A, B, C$$

$$Q = D, F, E$$

Fourth Loop

$$d = [0, 2, 3, 8, 6, 13]$$

$$\pi = [Nil, A, B, E, C, B]$$

$$R = A, B, C, E$$

$$Q = D, F$$

Fifth Loop

$$d = [0, 2, 3, 8, 6, 10]$$

$$\pi = [Nil, A, B, E, C, D]$$

$$R = A, B, C, E, D$$

$$Q = F$$

Sixth Loop

$$d = [0, 2, 3, 8, 6, 10]$$

$$\pi = [Nil, A, B, E, C, D]$$

$$R = A, B, C, E, D, F$$

$$Q = \emptyset$$