Give the shortest paths from E to

all other vertices using Dijkstra's algorithm. Your results must be shown in the table below.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| From E | A | B | C | D | F | G | H | I |
| Step 1 at E | Inf | Inf | 65 via E | 33 via E | 18 via E | 23 via E | Inf | Inf |
| Step 2 from F | Inf | 54 via F | 60 via F | 33 via E | 18 via E | 23 via E | 42 via F | Inf |
| Step 3 from G | Inf | 54 via F | 60 via F | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 4 from D | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 5 from C | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 6 from H | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 7 from I | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 8 from A | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |
| Step 9 from B | 45 via D | 54 via F | 37 via D | 33 via E | 18 via E | 23 via E | 42 via F | 44 via G |

The last line in your table gives the least cost to go from E to all other vertices. In the table below

show the actual path in the following format: E, Vertex\_1, Vertex\_2, etc.

|  |  |
| --- | --- |
| E to A | E, D, A |
| E to B | E, F, B |
| E to C | E, D, C |
| E to D | E, D |
| E to F | E, F |
| E to G | E, G |
| E to H | E, F, H |
| E to I | E, G, I |