

Give the shortest paths from E to all other vertices using Dijkstra's algorithm. Your results must be shown in the table below.

|  | A           | B           | C           | D           | F           | G           | H           | I           |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|  | INFIN.      | INFIN.      | 65-E        | 33-E        | <b>18-E</b> | 23-E        | INFIN.      | INFIN.      |
|  | INFIN.      | 54-F        | 60-F        | 33-E        | 18-E        | <b>23-E</b> | 42-F        | INFIN.      |
|  | INFIN.      | 54-F        | 60-F        | <b>33-E</b> | 18-E        | 23-E        | 42-F        | 44-G        |
|  | 45-D        | 54-F        | <b>37-D</b> | 33-E        | 18-E        | 23-E        | 42-F        | 44-G        |
|  | 45-D        | 54-F        | 37-D        | 33-E        | 18-E        | 23-E        | <b>42-F</b> | 44-G        |
|  | 45-D        | 54-F        | 37-D        | 33-E        | 18-E        | 23-E        | 42-F        | <b>44-G</b> |
|  | <b>45-D</b> | 54-F        | 37-D        | 33-E        | 18-E        | 23-E        | 42-F        | 44-G        |
|  | 45-D        | <b>54-F</b> | 37-D        | 33-E        | 18-E        | 23-E        | 42-F        | 44-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, Vertex_D, Vertex_A |
| E to B | E, Vertex_F, Vertex_B |
| E to C | E, Vertex_D, Vertex_C |
| E to D | E, Vertex_D           |
| E to F | E, Vertex_F           |
| E to G | E, Vertex_G           |
| E to H | E, Vertex_F, Vertex_H |
| E to I | E, Vertex_G, Vertex_I |