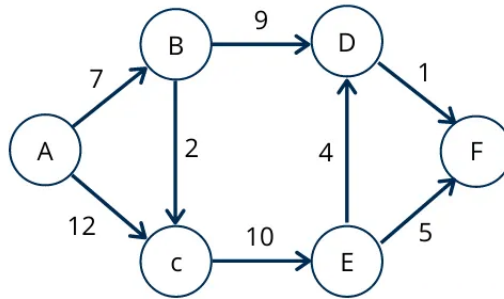


Assignment

1. Write code to implement the IPv4 fragmentation by taking inputs of payload and MTU details from the user. Each fragment must take the shortest path following Dijkstra's algorithm in the considered topology between any source and destination pairs of user choice. Below points must be considered for realizing the code
 - a) Fragmentation and Dijkstra's algorithm must work for any topology and you may be asked to run code on a custom topology during evaluation.
 - b) Source and destination nodes must be taken as user inputs.
 - c) Shortest path must be calculated before sending every fragmentation to the destination assuming that there may be topology changes in the network. Also, each fragment should take the current shortest path from source to destination.

Uploads:

- i) Upload a screen recording of your code run for the below example given



- ii) A single pdf report of code and results from the run with your Name, Roll No and Details of assignment.

Assignment **evaluation** is tentatively scheduled on **14th April 2023**.