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CS-225: Discrete Structures in CS
Homework 9, Part 2
Exercise Set 10.1 of the required textbook: Problem #2, #9.c, #16, #20, #21

I highly recommend that you try similar problems for which the solutions are already provided at the back of the required textbook.

P.S: 10.1: #2 - In the graph provided, determine whether the following walks are trails, paths, closed walks, circuits, simple circuits, or just walks. Each of the questions will have only one answer (the most appropriate one).

10.1 #20, #21 If the graph does not have an Euler trail from u to w, you must explain why not.

Set 10.1:

2. a) It is a walk because it contains both repeated edges and vertices.
   b) Simple Circuit
   c) Closed walk
   d) Closed walk
   e) Trail
   f) Path

9. c) Yes because of the theorem, "If the vertices of a graph all have an even degree, then it has a Euler Circuit". (Theorem for sufficient condition for a Euler Circuit.

16. It does not because two sets of three vertices are stacked through each other but they do not connect to each other clearly. ({v0,v2,v4} and {v1,v3,v5})

20. No because a Euler trail would cannot cross through edge twice upon running in order for it to end in the vertex. I am consistently getting to either (e,w) or (r,w) and having tot repeat one of those edges.

21.Yes, it does. u, v1,v2,v3,u,v0,v7,v6,v3,v4,v6,w,v4,v5,w (Note: repeated vertices, but no repeated edges from u to w)