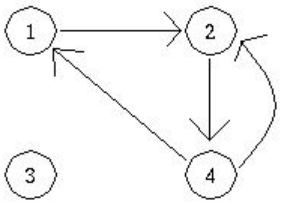
My submission

Instructions for submission

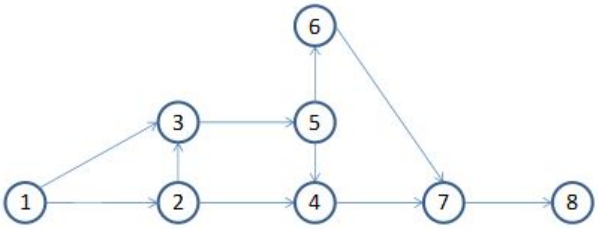
Although this assignment doesn't technically require any 'development' in terms of Java programming or programming in any other language, it is development in terms of developing a solution and a data structure. Consider the following picture representation of a graph:



This graph can be implemented using the following data structure.

V = {1, 2, 3, 4}
E = { (1, 2), (2, 4), (4, 2) (4, 1)}

Create a data structure to represent the graph detailed in the following picture:



As part of your assignment you must also determine (and include as part of the discussion in your assignment) if the graph is:

- Acyclic or not
- Directed or undirected
- Connected or not
- Simple or not

Please explain all of your answers.

Grading Rubric

Does the assignment include a data structure that includes both edges and vertices? (scale 1-4)

Does the assignment address the following questions:

- Acyclic or not (Yes/no)
- Directed or undirected (yes/no)
- Connected or not (yes/no)
- Simple or not (yes/no)

Does the assignment address what each of the preceeding questions means? In other words the assignment must indicate if the data structure is acyclic or not AND define what acyclic means (scale 1-4)

Programming Assign. Unit 3

submitted on *Tuesday, 9 July 2024, 10:43 PM*

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- Assignment.docx

Assessment

Grade: 90 of 90

Assessment form

Aspect 1

Does the assignment include a data structure that includes both edges and vertices? (scale 1-5)

Grade for Aspect 1

***** Excellent

Comment for Aspect 1

The assignment includes an adjacency list representation, clearly showing both vertices and edges. The vertices are listed, and their connections (edges) are detailed, fulfilling the requirement of including both edges and vertices.

Aspect 2

Does the assignment address the following questions:

- Acyclic or not (yes/no)
- Directed or undirected (yes/no)
- Connected or not (yes/no)
- Simple or not (yes/no)

*Each question worth 2.5 points each, for maximum of 10 points.

Grade for Aspect 2

10 / 10

Comment for Aspect 2

The assignment directly addresses each of the specified questions:

Acyclic or not: The assignment states the graph is acyclic and explains how this was determined.
Directed or undirected: The assignment states the graph is undirected.
Connected or not: The assignment states the graph is connected.

Aspect 3

Does the assignment address what each of the proceeding questions means? In other words the assignment must indicate if the data structure is acyclic or not AND define what acyclic means (scale 1-5)

Grade for Aspect 3

***** Excellent

Comment for Aspect 3

The assignment provides definitions for each term (acyclic, directed, connected, simple) and explains what these properties mean. This ensures that the reader understands the significance of each property as applied to the graph.

Overall feedback

Over all, the assignment is well-structured and comprehensively addresses all required aspects. The adjacency list is appropriate for representing the graph and effectively shows the connections between vertices. Each question is answered clearly, and the terms are well-defined. The use of references adds credibility to the explanations. Great work!

Assessment

Grade: 90 of 90

Assessment form

Aspect 1

Does the assignment include a data structure that includes both edges and vertices? (scale 1-5)

Grade for Aspect 1

***** Excellent

Comment for Aspect 1

Your assignment included a data structure that includes both edges and vertices.

Aspect 2

Does the assignment address the following questions:

- Acyclic or not (yes/no)
- Directed or undirected (yes/no)
- Connected or not (yes/no)
- Simple or not (yes/no)

*Each question worth 2.5 points each, for maximum of 10 points.

Grade for Aspect 2

10 / 10

Comment for Aspect 2

Yes, your assignment addressed it

Aspect 3

Does the assignment address what each of the proceeding questions means? In other words the assignment must indicate if the data structure is acyclic or not AND define what acyclic means (scale 1-5)

Grade for Aspect 3

***** Excellent

Comment for Aspect 3

Your assignments described the data structure questions that were given.

Overall feedback

Overall, great work on your assignment. Your work was well-detailed as you worked on the question prompts. Keep it up.

Assessment

Grade: 90 of 90

Assessment form

Aspect 1

Does the assignment include a data structure that includes both edges and vertices? (scale 1-5)

Grade for Aspect 1

***** Excellent

Comment for Aspect 1

All is well done. The assignment includes a data structure that includes both edges and vertices as required.

Aspect 2

Does the assignment address the following questions:

- Acyclic or not (yes/no)
- Directed or undirected (yes/no)
- Connected or not (yes/no)
- Simple or not (yes/no)

*Each question worth 2.5 points each, for maximum of 10 points.

Grade for Aspect 2

10 / 10

Comment for Aspect 2

Yes, all the aspects were pointed well.

Aspect 3

Does the assignment address what each of the proceeding questions means? In other words the assignment must indicate if the data structure is acyclic or not AND define what acyclic means (scale 1-5)

Grade for Aspect 3

***** Excellent

Comment for Aspect 3

The assignment addresses what each of the proceeding questions means appropriately.

Overall feedback

Very good job.

The student's submission is perfect. Each question answered correctly with all the required details. The student understand the concepts clearly. Also, the references list is good.

Thank you.