CISC 7540X Midterm Exam

- Answers must be emailed in plain text (no formatting, no attachments).

- Email must arrive arive before 10am on 2021-10-28.

- Email *must* have your *full name* at the *top*.

- Email subject must be "CISC 7540X Midterm Exam".

- Email to: `alex@theparticle.com`.

- Answers to questions must be clearly marked (question number before each answer), and be in sequence (question 1 should come before question 2, etc.).

Short-answer questions. Each question is worth 5-points. Leaving an answer blank earns 1-point (writing a wrong answer earns 0-points).

1. Describe the underlying principles of SDLC.

2. Describe the underlying principles of agile systems development methodologies. Contrast with SDLC.

3. Describe how Use Cases work in documenting user requirements.

4. Describe some ways of documenting/tracking progress during software development project (e.g. how to know we are 60% complete).

5. In the context of SDLC, what is generally done during the Planning stage? What are the deliverable artifacts?

6. In the context of SDLC, what is generally done during the Analysis & Design stage? What are the deliverable artifacts?

7. In the context of SDLC, what is generally done during the Building/Implementation stage? What are the deliverable artifacts?

8. In the context of SDLC, what is generally done during the Integration stage? What are the deliverable artifacts?

9. In the context of SDLC, what is generally done during the Testing stage? What are the deliverable artifacts?

10. In the context of SDLC, what is generally done during the Evaluation stage? What are the deliverable artifacts?

11. In the context of SDLC, what is generally done during the Deployment stage? What are the deliverable artifacts?

12. Briefly describe Data Centric Architecture. What projects is it appropriate for?

13. Briefly describe Data Flow Architecture. What projects is it appropriate for?

14. Briefly describe Call-and-Return Architecture. What projects is it appropriate for?

15. Briefly describe Object Oriented Architecture. What projects is it appropriate for?

16. Briefly describe Layered Architecture. What projects is it appropriate for?

17. Briefly describe Model-View-Controller Architecture. What projects is it appropriate for?

18. What is a data model? What does it contain? What are the objectives of data modeling? What are some different approaches to data modeling?

19. List a few differences between Waterfall and Spiral process models.

20. List a few differences between Spiral and Agile process models.