

MIDTERM EXAM PREPARATION

CSE 416-S01 - Software Engineering

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Format

- 15-minute oral exam
- Conducted through a Zoom session
- Schedule on class Web site (pick your time slot if you haven't already done so)
- Multiple exam blocks next week, 3/24-3/30 (no formal class on 3/24 and 3/26)
- Students in an exam block will be sent a Zoom invite in advance
- Waiting room enabled
- Individual students admitted from waiting room

You must be video enabled for your session

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Exam Categories

- Teamwork
- Requirements analysis
- Project planning
- System/test design

Be prepared for multiple questions in each category

Most questions are intended to test your thinking and understanding of related topics, not your memory

25 points for each exam category

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Suggestions

- Keep your answers concise and to the point
- Do not waste time (e.g., facts unrelated to the question)
- Practice verbal recall with your teammates
- Be best prepared for questions concerning the part of the project you have worked on

Any given answer should take no more than 20-30 seconds

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What to Bring (Electronically) to the Exam

- Your team's list of 40 use cases
 - From master use case list
 - Each use case in the list should show the team member(s) responsible
 - Priority (i.e., build number) of use case
- Text use cases (3)
- Your team's interface documents (e.g., client/server)
- Your test data (e.g., JSON responses)
- Your DB schema (partial)
- Your current server class diagram

Questions will be geared toward your role with the project

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Exam Items ...

- Text use cases
 - 3 use cases developed by your team
 - Form is on class web site
- Interface documents
 - To demonstrate your teamwork and project planning, please bring any interface documents (client/server interface)
 - Alternatively, please be prepared to demo your interface tool (e.g., Postman)
 - Client/server interface should reference use case number and show URL requesting data, parameters being passed, and form of JSON being returned (e.g., testing JSON)

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... Exam Items

- Test data
 - Set of JSONs that will return test data from server
- DB definition
 - Relational schema or Mongo list of collections
 - Be prepared to discuss the relationship of data to use cases
- Class diagram – server class design
 - Preliminary design showing classes with attributes

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Sample Questions - Teamwork Category

- To assess if you are working effectively as a team
- For example,
 - Who are your teammates?
 - How do you collaborate?
 - What are the responsibilities of each team member?
 - How is a typical team meeting structured?
 - How do you coordinate with team members who are producing data you need for your part of the project?

Be prepared to give/show examples

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Sample Questions - Project Planning Category

- To assess if you have planned the project work effectively
- For example,
 - How do you collaborate?
 - What are the responsibilities of each team member?
 - What tool do you use to manage the project tasks?
 - How far has your team progressed in designing the xxxx part of your system?
 - What is the most important part of the project to work on in the next week?

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Sample Questions - Requirements Analysis Category

- To assess your understanding of the project requirements
- Be prepared to discuss any of the use cases in your list
- Be prepared to answer questions about your text use cases
- I might pick a use case title and ask you to explain it
- Be prepared for follow-up questions to test your in-depth understanding of a topic
- For example,
 - Explain the impact of this requirement on your design
 - Identify the possible problems you might encounter in implementing this requirement
 - Explain how you would test to see if this requirement is satisfied

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System / Test Design Category

Preprocessing design documents not expect but you should be prepared to discuss status of work

- To assess your design skills
- Be prepared to answer questions about your class diagram
- Be prepared to discuss alternate design choices
- Be prepared to discuss how design choices relate to requirements
- For example,
 - Is xxxx the best data type for that attribute?
 - Which requirements relate to this aspect of your design?

Your diagrams will not be graded, but your understanding of them will

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Grading

- Your session will be recorded
- Most grading occurs during the exam, but adjustments are made after the TAs review the video
- Scores include an overall score and score for each of the exam categories
- Grades posted after all exams have been completed

Time Slot			Scoring				Mid-term		Team
Day	Slot #	Position #	Teamwork	Req. Anal.	Proj Plan.	System/Test Design	Score	ABET Score	Name

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Final Advice

- Relax
- The exam should be fun and resemble a technical discussion you are having with colleagues in industry
- The best preparation is to continue to work on the project