



CS 255 Project Two Guidelines and Rubric

Competency

In this project, you will demonstrate your mastery of the following competencies:

- Create various system models through the application of appropriate tools
- Present and articulate technical concepts to nontechnical audiences

Scenario

You work for a small consulting company that designs systems for various clients. You are continuing to work on a system for DriverPass. Previously, you completed a business requirements document for your project lead that articulated DriverPass's needs. You also made a suggestion regarding which approach—object or process—your company should take. Based on your excellent work thus far, your project lead would like you to continue designing the system for DriverPass. Your project lead ultimately decided on a blended approach that incorporates the best of object and process modeling. She has asked you to complete a system design document, which will include several UML diagrams and a description of the technical requirements for the DriverPass system. This design document will eventually be shared with the developers on your team who will implement your design.

Finally, your project lead has asked you to create a short presentation for the client based on your design. You will be asked to communicate different components of the system and how they meet DriverPass's needs. Since this information will be presented to the client, you will need to avoid the use of technical jargon.

Review the assignment directions below and follow the steps needed to complete these deliverables for your project lead.

Note: You will not be creating all of the UML diagrams for the entire system, nor presenting the entire design to the client. In the industry, you would have help from coworkers and a longer time frame to complete all of the documentation. For the purposes of this project, things have been simplified.

Directions

System Design Document

You will complete a system design document based on the requirements you collected in Project One. In this document, you will complete your system design by creating proper UML diagrams and describing the system's technical requirements.

1. Review the business requirements document that you completed for Project One. This will remind you of your client's needs and your plan for the design.

Tip: It would also help to review any feedback your instructor provided on Project One.

2. In Module Six, you created a **UML use case diagram** for the DriverPass system. If you would like to make any adjustments to your diagram, please do so. Check to make sure that you included **appropriate components and symbols** and that your design **meets the client's requirements**.

3. In addition to the use case diagram, you will use the CASE tool Lucidchart to create UML activity, sequence, and class diagrams. Each diagram must include the appropriate components and symbols and meet the client's requirements.
- Based on the use case diagram you created:
 - i. Choose **two** use cases and create **two UML activity diagrams**, one for each use case.
 - ii. For **one** of the use cases you chose, create a **UML sequence diagram**.
 - Finally, you must use Lucidchart to create a **UML class diagram** for your system. Your class diagram should include the different classes and attributes needed for your system design. You are ***not*** required to include methods, but you may if you wish.
4. Include a copy of each UML diagram in your system design document. Use the template linked in the What to Submit section.
5. Review the different functional and nonfunctional requirements you included in your business requirements document for Project One. Based on these, describe the **technical requirements** of your proposed system. The technical requirements should address the required hardware, software, tools, and infrastructure necessary for your system design.

Client Presentation

You will create a short PowerPoint presentation to your client, which includes a description of your system. Your team lead wants to see your ability to present your ideas and designs back to clients. She would like you to include speaker notes for each slide that include your explanation of the slide and how it meets the client's needs. Since you are presenting to a client, your explanation should be simplified and targeted at a nontechnical audience.

1. Open the **client presentation** template, linked in the What to Submit section. Each slide includes a heading as well as a prompt for what to include on the slide. You will present information from both your **business requirements document** and **system design document**. You must complete the following slides:

- Title
- System Requirements
- Use Case Diagram
- Activity Diagram
- Security
- System Limitations

NOTE: You may include additional slides if you would like to explain other aspects of your design.

2. Write out your explanation in the speaker notes for each slide. Use the PowerPoint Speaker Notes Tutorial, located in the Supporting Materials section, to help you with this task. Remember that these speaker notes represent what would be the spoken part of your presentation. Since you are explaining your designs to the client, you must do the following:

- Explain how each component of your design **meets the client's needs**.
- Use **nontechnical language** to communicate your ideas.
- **Clearly articulate** your designs with polished grammar and sufficient detail.

What to Submit

To complete this project, you must submit the following:

System Design Document

Use the [System Design Document Template](#) to complete your system design document. Be sure to include all of your UML diagrams as well as the technical requirements. Submit your completed document as a Word file.

Client Presentation

Use the [Client Presentation Template](#) to complete your client presentation. Replace the bracketed text in the template with the relevant information. Your PowerPoint presentation should be a minimum of 6 slides in length. Be sure to include speaker notes explaining the purpose of each slide. Submit both the PowerPoint (.ppt) file as well as the Word (.docx) file containing your slides and speaker notes.

Supporting Materials

The following resource(s) may help support your work on the project:

Reading: [DriverPass Interview Transcript](#)

You have previously reviewed this resource to collect requirements from DriverPass. Review this transcript as you complete the deliverables for this assignment to make sure that you are meeting DriverPass's needs.

Reading: [Lucidchart Tutorial](#)

This tutorial will walk you through using the CASE tool Lucidchart. You will learn how to create a Lucidchart account and how to create different types of documents and diagrams. Use this tutorial to help you create the different UML diagrams needed for your system design document.

Reading: [PowerPoint Speaker Notes Tutorial](#)

This tutorial will show you how to create, save, and export speaker notes in PowerPoint. Use this tutorial to help you with your client presentation deliverable.

Reading: [Basic Tasks to Create a Presentation in PowerPoint With a Screen Reader](#)

This website provides tips for students using PowerPoint with a screen reader. It includes helpful keyboard shortcuts for several different features, including the creation of speaker notes.

Project Two Rubric

Criteria	Exceeds Expectations	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Value
System Design Document: UML Diagrams	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Creates UML diagrams with CASE tools that meet client's needs (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	30

Criteria	Exceeds Expectations	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Value
System Design Document: UML Notation	N/A	Creates UML diagrams with CASE tools that include proper UML notation and diagram flow (100%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	15
System Design Document: Technical Requirements	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Describes software, hardware, and other technical requirements based on proposed system design (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	15
Presentation: Meeting Client Needs	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Explains how components of design meet client's needs (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	15
Presentation: Nontechnical Language	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Uses nontechnical language to clearly communicate design (85%)	N/A	Does not attempt criterion (0%)	15
Presentation: Articulation	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Conveys meaning with correct grammar, sentence structure, spelling, and sufficient detail (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	10
Total:					100%