## **Competency**

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

* Explain the principles, methods, and techniques of systems development

## **Scenario**

You work for a small consulting company that designs systems for various clients. Your project lead has assigned you to a new client, DriverPass. DriverPass noticed that there are very few tools that train students to pass their driving tests. Their research has found that more than 65% of the students applying for the driving license exam fail since all they did was study previous tests! DriverPass wants to provide students with access to online practice exams and on-the-road training to better prepare them for driving tests. DriverPass wants your help in designing a system that can handle these needs. The system has several stakeholders including IT, management, and customers.

Representatives from your company already conducted an interview with DriverPass to determine their needs. Present for the interview were:

* Jennifer—your project lead
* Sam—the former systems analyst for your company
* Liam—DriverPass owner
* Ian—DriverPass IT officer

You have been given a copy of the interview transcript in the Supporting Materials section.

Your project lead has recently assigned you to take over as the systems analyst for the DriverPass project. She has asked you to complete a business requirements document that accurately captures DriverPass’s needs. Your project lead would also like you to provide a brief analysis of both a process- and an object-modeling approach to designing this system. Review the assignment directions below and follow the steps needed to complete these deliverables for your project lead.

## **Directions**

**Business Requirements Document**

The first part of this project requires you to complete a business requirements document based on your client’s needs. This document is a way of communicating the client’s needs—as well as your plan to meet those needs—back to your project lead. It will also support future steps in designing and developing the system.

1. Read the interview transcript located in the Supporting Materials section. As you read, take notes on what the client needs their system to be able to do. Think about the following questions as you read:
   * What does the client want the system to do?
   * Who will be the different users of the system? What will each user need to be able to do?
   * What are the different requirements for the system?
2. Complete the **business requirements document** using the template in the What to Submit section. Be sure to reference the interview transcript as you work to make sure you accurately captured your client’s needs. You are responsible for completing the following sections:
   * **System Components and Design**
     + ~~Purpose~~
     + ~~System Background~~
     + Objectives and Goals
   * **Requirements**
     + **Nonfunctional Requirements**
       - ~~Performance requirements~~
       - ~~Platform constraints~~
       - ~~Accuracy and precision~~
       - ~~Adaptability~~
       - ~~Security~~
     + **~~Functional Requirements~~**
     + **~~User Interface~~**
   * **~~Assumptions~~**
   * **~~Limitations~~**
3. **~~Schedule:~~** ~~Using Lucidchart, create a Gantt chart to outline a schedule based on the information provided in the transcript. Include a screenshot of your Gantt chart in the business requirements document. Your schedule must include a realistic schedule of tasks for the project, based on prioritization, dependencies, and time allocation. Be sure each area of your schedule is clearly labeled.~~

**Model Application Short Paper**

In addition to completing the business requirements document, your project lead wants you to think through both a process- and an object-modeling approach for designing this system. You will describe the advantages and disadvantages of each approach. Your short paper must address the following:

* **Model Application**
  + **Process Model:** Describe how you would apply a process modeling approach to the DriverPass project.
  + **Object Model:** Describe how you would apply an object modeling approach to the DriverPass project.  
    **IMPORTANT: You do *not* need to create object- or process-model diagrams for this paper.**
* **Model Comparison:** Compare the advantages and disadvantages of a process- and an object-modeling approach for addressing this scenario.