CS 255 Project One Guidelines and Rubric

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:

   o 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.

What to Submit

To complete this project, you must submit the following:

Business Requirements Document

Use the Business Requirements Document Template to complete your business requirements document detailing DriverPass's needs. The template contains guiding questions to help you complete each section. Be sure to complete all sections and include a screenshot of your Gantt chart. You will also use this business requirements document to complete the second project in the course. Submit your completed document as a Word file.

Model Application Short Paper

Use the Model Application Short Paper Template to complete your short paper. This paper should explain the application of each model to the DriverPass scenario and compare the advantages and disadvantages. Submit your completed document as a **3- to 5-page** Word file, including your title page and references. Use 12-point Times New Roman font, double spacing, and one-inch margins. Be sure to use APA format for your title page and citations.

Supporting Materials

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

Reading: DriverPass Interview Transcript

Review this resource to collect requirements from DriverPass. Each member from DriverPass contributed valuable information regarding their needs. Additionally, your colleagues discussed the timeline for this project. Use this information to help you complete the business requirements document.

Reading: Lucidchart Tutorial

This tutorial will show you how to create a Lucidchart account, as well as how to create different types of documents and diagrams. In the business requirements document, you have been asked to include a GANTT chart that lays out a schedule for the DriverPass project.

Shapiro Library Resource: Shapiro Library APA Style Guide

This guide will help you with your work on the short paper. Use this resource to help you format your cover page and references according to APA style. You are not required to use external resources for this project. However, if you do use any resources, you must cite them in APA format.

Project One Rubric

Criteria	Exceeds Expectations	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Value
Business Requirements Document: System Description	N/A	Describes a high-level view of the system, including system background, purpose, objectives, and goals (100%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	10
Business Requirements Document: Functional and Nonfunctional Requirements	N/A	Describes functional and nonfunctional requirements by addressing the functionality of components as well as the performance and security of the system (100%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	25
Business Requirements Document: User Interface Requirements	N/A	Describes interface requirements including different users, services provided, platform, and types of interactions (100%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	10
Business Requirements Document: Scheduling	N/A	Creates a Gantt chart that includes a realistic schedule of tasks for the project, based on prioritization, dependencies, and time allocation (100%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	15
Business Requirements Document: Assumptions and Limitations	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Describes logical assumptions and project limitations (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	10
Short Paper: Model Application	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Describes how a process and an object modeling approach would apply to the scenario (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	15

Criteria	Exceeds Expectations	Meets Expectations	Partially Meets Expectations	Does Not Meet Expectations	Value
Short Paper: Model Comparison	Exceeds expectations in an exceptionally clear, insightful, sophisticated, or creative manner (100%)	Compares the advantages and disadvantages of following object and process models for the scenario (85%)	Shows progress toward meeting expectations, but with errors or omissions (55%)	Does not attempt criterion (0%)	10
Clear Communication	Exceeds expectations with an intentional use of language that promotes a thorough understanding (100%)	Consistently and effectively communicates in an organized way to a specific audience (85%)	Shows progress toward meeting expectations, but communication is inconsistent or ineffective in a way that negatively impacts understanding (55%)	Shows no evidence of consistent, effective, or organized communication (0%)	5
				Total:	100%