

BPN1 – BPN1 TASK 1: SOFTWARE SOLUTION

SOFTWARE ENGINEERING – D284

PRFA – BPN1

TASK OVERVIEW

SUBMISSIONS

EVALUATION REPORT

COMPETENCIES

4081.1.1 : Analyzes Software Systems

The learner analyzes the objectives, scope, and organizational impact of software systems.

4081.1.2 : Identifies Design Costs and Impacts

The learner identifies the costs and impact of design changes to software systems.

4081.1.3 : Determines Software Design

The learner determines optimal software design for given requirements.

4081.1.4 : Creates Test Cases

The learner creates test cases for quality assurance as part of software development processes.

INTRODUCTION

In this assessment, you will review a requirements document and propose a software solution. Your submission will showcase what you have learned in the course through the creation of a design and test plan, which is a deliverable for the Agile methodology. Review the scenario, requirements, and rubric below for additional guidance as you complete this assessment.

For this task, you will act as the project lead for MJ Logistics Gaming Company, a medium-sized company. You may choose to implement a customizable commercial off-the-shelf (COTS) system, or you may decide to have the system custom-built. When making this decision, ensure all requirements are considered and can be implemented if choosing a COTS system. If you decide to build the system, consider the additional resources that will be needed. Review the attached “CRM Requirements” supporting document to gain an overall understanding of the system that the company is looking for. Use the “Design Template” supporting document to submit your proposal.

SCENARIO

You are the project lead of a software development team for a project at MJ Logistics Gaming Company. The team includes business analysts, solution analysts, developers, quality assurance professionals, and a project manager, among other team members. You have been tasked with presenting a solution proposal and design and test plan with the help of your team to support the software development process. MJ Logistics Gaming also wants your team to implement a web-based customer relationship management (CRM) system for the sales force of a medium-sized company. MJ Logistics Gaming has provided a high-level requirements



document to aid you in identifying an appropriate solution and gaining an overall understanding of the system the company is looking for. (See the attached “CRM Requirements.”)

REQUIREMENTS

Your submission must be your original work. No more than a combined total of 30% of the submission and no more than a 10% match to any one individual source can be directly quoted or closely paraphrased from sources, even if cited correctly. The similarity report that is provided when you submit your task can be used as a guide.

You must use the rubric to direct the creation of your submission because it provides detailed criteria that will be used to evaluate your work. Each requirement below may be evaluated by more than one rubric aspect. The rubric aspect titles may contain hyperlinks to relevant portions of the course.

*Tasks may **not** be submitted as cloud links, such as links to Google Docs, Google Slides, OneDrive, etc., unless specified in the task requirements. All other submissions must be file types that are uploaded and submitted as attachments (e.g., .docx, .pdf, .ppt).*

Propose a software solution for MJ Logistics Gaming Company by doing the following:

- A. Introduce your proposed system, as outlined in the attached “Design Template.” Your introduction must address the following requirements:
1. Provide an introduction, including an explanation of the purpose of the proposed system.
 2. Describe the problems the company is currently facing and how the proposed solution will solve those problems.
 3. Provide the goals and objectives for the project and solution.
 4. Provide a list of prerequisites that include descriptions and future completion dates.
 5. List the scope of the proposed system, including what will and will not be covered.
 6. Describe the front-end and back-end environments that the solution will be deployed in.

Note: The introduction section of your report may be done after the project task is completed.

- B. Explain how your software solution addresses **four** distinct requirements from the attached “CRM Requirements.” Align *each* of the **four** distinct requirements to **one** of the following subsections:
- business requirements
 - user requirements
 - functional requirements
 - non-functional requirements

- C. Discuss the Agile method by doing the following:
1. Compare at least **three** advantages and at least **three** disadvantages of the Agile method to those of another development method of your choice.
 2. Evaluate whether the Agile method or the development method you chose in part C1 is better suited to the solution for MJ Logistics Gaming Company, including specific examples to justify your evaluation.

- D. Create **two** different representations of your software solution (e.g., storyboard, flowchart, UML diagram, ERD) that illustrate how the system process or workflow aligns with and supports the business process for MJ Logistics Gaming Company. Include a brief description for *each* representation.

- E. Create a test plan with test cases for **three** different functional aspects of your software solution, including *each* of the following:
- requirement to be tested
 - preconditions for *each* test case
 - steps for *each* test case
 - expected results for *each* test case
 - an explanation of why *each* test passed or failed
- F. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.
- G. Demonstrate professional communication in the content and presentation of your submission.

File Restrictions

File name may contain only letters, numbers, spaces, and these symbols: ! - _ . * ' ()

File size limit: 400 MB

File types allowed: doc, docx, rtf, xls, xlsx, ppt, pptx, odt, pdf, txt, qt, mov, mpg, avi, mp3, wav, mp4, wma, flv, asf, mpeg, wmv, m4v, svg, tif, tiff, jpeg, jpg, gif, png, zip, rar, tar, 7z

RUBRIC

A1:INTRODUCTION AND PURPOSE

NOT EVIDENT

The submission does not provide an introduction to the proposed system.

APPROACHING COMPETENCE

The submission provides an introduction, but it is incomplete or does not include an explanation of the proposed system. Or the information included does not align with the proposed software solution.

COMPETENT

The submission provides a complete introduction and includes an explanation of the purpose of the proposed system. The introduction is in alignment with the proposed software solution.

A2:CURRENT PROBLEMS

NOT EVIDENT

The submission does not describe the problems the company is currently facing.

APPROACHING COMPETENCE

The submission describes the problems MJ Logistics Gaming Company is currently facing but does not describe how the proposed solution will solve those problems. Or the description contains inaccuracies.

COMPETENT

The submission accurately describes the problems MJ Logistics Gaming Company is currently facing and how the proposed solution will solve those problems.

A3:GOALS AND OBJECTIVES

NOT EVIDENT

The submission does not provide the goals and objectives for the project and solution.

APPROACHING COMPETENCE

The submission provides the goals and objectives for the project and solution, but the goals or objectives are incomplete or are not in alignment with the proposed system.

COMPETENT

The submission provides complete goals and objectives for the project and solution. The goals and objectives are in alignment with the proposed system.

A4:PREREQUISITES

NOT EVIDENT

The submission does not provide a list of *any* prerequisites.

APPROACHING COMPETENCE

The submission provides a list of prerequisites but does not include valid descriptions or future completion dates. Or the list is incomplete or is not in alignment with the proposed system.

COMPETENT

The submission provides a complete list of prerequisites and includes valid descriptions and future completion dates. The prerequisites align with the proposed system.

A5:SCOPE

NOT EVIDENT

The submission does not list the scope of the proposed system.

APPROACHING COMPETENCE

The submission lists the scope of the proposed system but does not include what will or will not be covered in the project. Or the scope is incomplete.

COMPETENT

The submission lists the scope of the proposed system and includes *both* what will and what will not be covered in the project. The scope is complete.

A6:ENVIRONMENT

NOT EVIDENT

The submission does not describe front-end or back-end environments.

APPROACHING COMPETENCE

The submission does not describe *both* the front-end and back-end environments that the solution will be deployed in. Or the description contains inaccuracies or is incomplete.

COMPETENT

The submission accurately and completely describes *both* the front-end and back-end environments that the solution will be deployed in.

B: REQUIREMENTS**NOT EVIDENT**

The submission does not explain how the software solution addresses *any* requirements from the “CRM Requirements” document.

APPROACHING COMPETENCE

The submission does not explain how the software solution addresses *each* of the 4 requirements from the “CRM Requirements” document. Or 1 or more of the 4 distinct requirements do not align with 1 of the given subsections.

COMPETENT

The submission explains how the software solution addresses *each* of the 4 requirements from the “CRM Requirements” document. *Each* of the 4 distinct requirements aligns with 1 of the given subsections.

C1: DEVELOPMENT METHODOLOGIES: COMPARISON**NOT EVIDENT**

The submission does not compare the advantages and disadvantages of the Agile method.

APPROACHING COMPETENCE

The submission does not accurately compare 3 advantages and 3 disadvantages of *both* the Agile method and another development method.

COMPETENT

The submission accurately compares at least 3 advantages and at least 3 disadvantages of *both* the Agile method and another development method.

C2: DEVELOPMENT METHODOLOGIES: EVALUATION**NOT EVIDENT**

The submission does not evaluate whether the Agile method or the development method chosen in part C1 is better suited to the solution.

APPROACHING COMPETENCE

The submission evaluates whether the Agile method or the chosen development method from part C1 is better suited to the solution for the company, but the evaluation does not include specific examples to justify why the Agile method or the chosen method is better suited to the solution for MJ Logistics Gaming Company.

COMPETENT

The submission evaluates whether the Agile method or the chosen development method from part C1 is better suited to the solution for the company and includes specific examples to justify why the Agile method or the chosen method is better suited to the solution for MJ Logistics Gaming Company.

D: REPRESENTATIONS**NOT EVIDENT**

2 visual representations of the software solution are not

APPROACHING COMPETENCE

1 or *both* representations of the software solution do not illus-

COMPETENT

Both representations of the software solution illustrate how the

provided.

trate how the system process or workflow aligns with and supports the business process. Or the system process does not correctly align with or support the business process, or the submission does not include a brief description for *each* representation.

system process or workflow correctly aligns with and supports the business process. *Both* representations contain a brief description.

E: TESTING

NOT EVIDENT

A test plan is not provided.

APPROACHING COMPETENCE

The test plan does not include 3 functional aspects of the software solution or does not include 1 or more of the 5 given points. Or the functional aspects are not different or do not require multiple steps to be tested.

COMPETENT

The test plan includes 3 functional aspects of the software solution and includes the 5 given points. *All* 3 functional aspects are different and require multiple steps to be tested.

F: SOURCES

NOT EVIDENT

The submission does not include both in-text citations and a reference list for sources that are quoted, paraphrased, or summarized.

APPROACHING COMPETENCE

The submission includes in-text citations for sources that are quoted, paraphrased, or summarized and a reference list; however, the citations or reference list is incomplete or inaccurate.

COMPETENT

The submission includes in-text citations for sources that are properly quoted, paraphrased, or summarized and a reference list that accurately identifies the author, date, title, and source location as available.

G: PROFESSIONAL COMMUNICATION

NOT EVIDENT

Content is unstructured, is disjointed, or contains pervasive errors in mechanics, usage, or grammar. Vocabulary or tone is unprofessional or distracts from the topic.

APPROACHING COMPETENCE

Content is poorly organized, is difficult to follow, or contains errors in mechanics, usage, or grammar that cause confusion. Terminology is misused or ineffective.

COMPETENT

Content reflects attention to detail, is organized, and focuses on the main ideas as prescribed in the task or chosen by the candidate. Terminology is pertinent, is used correctly, and effectively conveys the intended meaning.

Mechanics, usage, and grammar promote accurate interpretation and understanding.

SUPPORTING DOCUMENTS

[Design Template.docx](#)

[CRM Requirements.docx](#)