

AEN1 – AEN1 TASK 2: QUALITY ASSURANCE

SOFTWARE DESIGN AND QUALITY ASSURANCE – D480

PRFA – AEN1

TASK OVERVIEW

SUBMISSIONS

EVALUATION REPORT

COMPETENCIES

4023.2.1 : Determines Impact on Business Requirements

The learner determines the impact of business requirements on software design patterns and software systems.

4023.2.2 : Identifies Goals and Roadblocks

The learner identifies goals and potential roadblocks as part of software development plans.

4023.2.3 : Defines Plans for Development Tasks and Environments

The learner defines plans for development tasks and environments based on desired quality outcomes.

4023.2.4 : Recommends Tools and Services

The learner recommends tools and services to address functional and non-functional testing outcomes.

INTRODUCTION

Throughout your career in quality assurance (QA), you will be asked to plan the testing approach to meet business requirements. You will need to determine testing objectives in alignment with a software design plan, identify both in-scope and out-of-scope requirements, and outline a testing process including the sequence of testing, necessary tools, and key contributors.

In this task, you will be given a software design and quality assurance scenario and a ticket artifact. You will be asked to create a quality assurance test plan to address the information in the ticket artifact regarding the functionality of a web app. Your quality assurance test plan should be a continuation of the software design plan completed in Task 1. You will need to use the attached “Quality Assurance Test Plan” template to create your submission.

SCENARIO

Refer to the scenario in the attached “Background Information” document.

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).

A. Using the “Quality Assurance Test Plan” supporting document, provide an overview by doing the following:

1. Summarize the proposed software design plan from Task 1, including identification of the problem statement being addressed from the attached “Background Information” (i.e., scenario, ticket).
2. Identify the overall objective of the functional requirements to be tested during the quality assurance process, aligning the objective with the summarized software design plan in part A1.
 - a. Summarize the quality metrics associated with the overall objective of the functional requirements, including an explanation of why the identified metrics are relevant to the software design solution.
3. Identify the overall objective of the non-functional requirements to be tested during the quality assurance process, aligning the objective with the summarized software design plan in part A1.
 - a. Summarize the quality metrics associated with the overall objective of the non-functional requirements, including an explanation of why the identified metrics are relevant to the software design solution.

B. Using the “Quality Assurance Test Plan” supporting document, identify the project scope by doing the following:

1. Identify **two** in-scope requirements to be tested within the quality assurance process that are aligned with the overall objective of the functional requirements identified in part A2.
2. Identify **two** in-scope requirements to be tested within the quality assurance process that are aligned with the overall objective of the non-functional requirements identified in part A3.
3. Identify **two** out-of-scope functionalities that will not be tested within the quality assurance process.
 - a. For *each* identified functionality, explain the following points:
 - how the functionality aligns with the business requirement identified in part A1
 - why the functionality should be labeled as out of scope

C. Using the “Quality Assurance Test Plan” supporting document, outline the testing strategy by doing the following:

1. Provide an overview of the testing process for *each* in-scope requirement identified in parts B1 and B2 by filling out the “Test Case Table” with the following information:
 - Test Type: categorize by test type (e.g., unit, integration, system, end-to-end)
 - Description of Test: summarize the testing technique(s) used to validate the in-scope requirement, including sample inputs and expected results
 - Objective: restate the associated overall objective, identified in part A2 or A3, met by the in-scope requirement
 - Test Owner: identify which stakeholder role will perform the test
 - Environment: identify the testing environment or tools required for the test
2. Define a logical sequence of testing for the testing process for *each* in-scope requirement provided in part C1, including the justification of the planned sequence of testing.

D. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.

E. 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, pptsx, 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: SOFTWARE DESIGN PLAN SUMMARY

NOT EVIDENT

The submission does not summarize the candidate's proposed software design plan from Task 1 and does not identify the relevant business requirement being addressed. Or the "Quality Assurance Test Plan" was not used.

APPROACHING COMPETENCE

The submission uses the "Quality Assurance Test Plan" to summarize the candidate's proposed software design plan from Task 1 or identify the relevant problem statement being addressed but not both.

COMPETENT

The submission uses the "Quality Assurance Test Plan" to summarize the candidate's proposed software design plan from Task 1 and identify the relevant problem statement being addressed.

A2: FUNCTIONAL REQUIREMENT OBJECTIVE

NOT EVIDENT

The submission does not identify the overall objective of the functional requirements to be tested. Or the "Quality Assurance Test Plan" was not used.

APPROACHING COMPETENCE

The submission uses the "Quality Assurance Test Plan" to identify the overall objective of the functional requirements to be tested during the quality assurance process but the objective is not aligned with the summarized software design plan in part A1.

COMPETENT

The submission uses the "Quality Assurance Test Plan" to identify the overall objective of the functional requirements to be tested during the quality assurance process, and the objective is aligned with the summarized software design plan in part A1.

A2A: FUNCTIONAL REQUIREMENT OBJECTIVE METRICS

NOT EVIDENT

The submission does not summarize the quality metrics associated with the overall objective of the functional requirements.

APPROACHING COMPETENCE

The submission uses the "Quality Assurance Test Plan" to summarize the quality metrics

COMPETENT

The submission uses the "Quality Assurance Test Plan" to summarize the quality metrics associated with the overall objective of

Or the “Quality Assurance Test Plan” was not used.

associated with the overall objective of the functional requirements but does not explain why the identified metrics are relevant to the software design solution.

the functional requirements and explain why the identified metrics are relevant to the software design solution.

A3:NON-FUNCTIONAL REQUIREMENT OBJECTIVE

NOT EVIDENT

The submission does not identify the overall objective of the non-functional requirements to be tested. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to identify the overall objective of the non-functional requirements to be tested during the quality assurance process but the objective is not aligned with the summarized software design plan in part A1.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to identify the overall objective of the non-functional requirements to be tested during the quality assurance process, and the objective is aligned with the summarized software design plan in part A1.

A3A:NON-FUNCTIONAL REQUIREMENT OBJECTIVE METRICS

NOT EVIDENT

The submission does not summarize the quality metrics associated with the overall objective of the non-functional requirements. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to summarize the quality metrics associated with the overall objective of the non-functional requirements but does not explain why the identified metrics are relevant to the software design solution.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to summarize the quality metrics associated with the overall objective of the non-functional requirements and explain why the identified metrics are relevant to the software design solution.

B1:IN-SCOPE FUNCTIONAL REQUIREMENTS

NOT EVIDENT

The submission does not identify any in-scope requirements to be tested. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to identify 2 in-scope requirements to be tested during the quality assurance process but at least 1

COMPETENT

The submission uses the “Quality Assurance Test Plan” to identify 2 in-scope requirements to be tested during the quality assurance process, and the requirements are aligned with the over-

requirement is not aligned with the overall objective of the functional requirements identified in part A2. Or the submission only identifies 1 in-scope requirement.

all objective of the functional requirements identified in part A2.

B2:IN-SCOPE NON-FUNCTIONAL REQUIREMENTS

NOT EVIDENT

The submission does not identify any in-scope requirements to be tested. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to identify 2 in-scope requirements to be tested during the quality assurance process but at least 1 requirement is not aligned with the overall objective of the non-functional requirements identified in part A3. Or the submission only identifies 1 in-scope requirement.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to identify 2 in-scope requirements to be tested during the quality assurance process, and the requirements are aligned with the overall objective of the non-functional requirements identified in part A3.

B3:OUT-OF-SCOPE FUNCTIONALITIES

NOT EVIDENT

The submission does not identify any out-of-scope functionalities that will not be tested. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to identify only 1 out-of-scope functionality that will not be tested during the quality assurance process.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to identify 2 out-of-scope functionalities that will not be tested during the quality assurance process.

B3A:OUT-OF-SCOPE FUNCTIONALITIES EXPLANATION

NOT EVIDENT

The submission does not explain any of the given points for the functionalities identified in B3. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” but the explanation does not address *each* of the 2 given point for *each* functionality identified in B3.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to explain *each* of the 2 given points for *each* functionality identified in part B3.

C1: TESTING OVERVIEW**NOT EVIDENT**

The submission does not provide an overview of the quality assurance testing process. Or the “Test Case Table” within the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to provide an overview of the quality assurance testing process in the “Test Case Table” for *each* in-scope requirement identified in parts B1 and B2 but does not provide information on *each of* the 5 given points for *each* in-scope requirement. Or the overview did not address *each* in-scope requirement identified in parts B1 and B2.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to provide an overview of the quality assurance testing process in the “Test Case Table” for *each* in-scope requirement identified in parts B1 and B2. The “Test Case Table” provides information on *each of* the 5 given points for *each* in-scope requirement.

C2: SEQUENCE OF TESTING**NOT EVIDENT**

The submission does not define a logical sequence of testing. Or the “Quality Assurance Test Plan” was not used.

APPROACHING COMPETENCE

The submission uses the “Quality Assurance Test Plan” to define a logical sequence of testing for the tests for *each* in-scope requirement in part C1 but does not justify the planned sequence of testing. Or the sequence of testing is not logical or is incomplete when compared with C1.

COMPETENT

The submission uses the “Quality Assurance Test Plan” to define a logical sequence of testing for the tests for *each* in-scope requirement in part C1 and justify the planned sequence of testing.

D: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.

E: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

[Quality Assurance Test Plan.docx](#)

[Background Information.pdf](#)