

Project Brief

Project title	Digital Transformation (DX)
Module Name	Capstone Project - Application Development
Course Name	Applied Degree in Software Engineering
Project Start date	
Project Submission	

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1. Purpose of this Project

This Project is used for Summative Assessment of student in the Module '**Capstone Project - Application Development**' of the NICF Course "**Applied Degree in Software Engineering**".

This Research Project considers the skills required to Research, Plan, Design, Implement, Test & Document a project for JumpStart Retail Store.

2. Project Pre-requisites

- You should have completed the following activities before.
 - Viewed and understood all the e-content related to the module.
 - Completed all the MCQ tests related to the module.
 - Completed all the Assignment / Lab Exercises of the module.
- You should have access to the Project Brief, Project Report template and Project.
- Presentation template and should understand how to use the templates.
- You have access to the Project Technical Environment
- You should understand the number of milestones and what are the milestones to be presented for each of the mentoring Session.

To implement the project, you will need.

- a. Front-end technologies
- b. Back-end technologies
- b. MySQL Database
- c. PhpMyAdmin / MySQL Client
- d. Selected IDE tool
- e. Microsoft Word
- f. Microsoft PowerPoint
- g. Microsoft Project/Excel/Project Libre

3. Project Outcomes & Deliverables

You should perform all the tasks in the Project Task List and prepare the following during the project:

- Implement the project on the project technical environment.
- Prepare a Project Report as per pre-defined template.
- Prepare a Project Presentation as per pre-defined template.
- Prepare Website Documentation

4. Project Definition Scenario

You are currently working as a project manager in a leading enterprise solution provider called Aceadora Tech.

Jumpstart retail chain owns 750 stores nationwide. They reach out to the customers because of the quality and creativity of their products. A new norm of remote working has emerged in the post-Covid 19 disturbed their core business in different respects. They want to reshape their business model and lean towards customer commerce. The Chief Operating Manager of Jumpstart approached Aceadora Tech to provide the solution to overcome the challenges.

Aceadora Computing chose to take over this project and assist Jumpstart in tackling technology challenges. Senior Manager Mr. Martin considered the following aspects

- New business models
- Reduce Cost and Increase Revenue
- Customer Experience
- Enterprise agility
- Inventory management
- Predictive analysis
- Process Automation
- Increasing operational efficiency
- Omnichannel to reach out to customers.
- Conversions and loyalty

You have been tasked with selecting any of the above areas and conducting research to do so.

5. Project Task List

The document portfolio may include:

Research Proposal

You must produce a research proposal that clearly outlines a research questions or theory, as well as a literature review to back it up.

- Critically assess various research methods and methodologies for both primary and secondary research
- Justify method selections using constructive research.
- Plan for the work breakdown structure, as well as timeframes and steps for completion.

Conduct and Analyze Research

Conduct primary and secondary research using appropriate methods for a computing research project.

- Choose appropriate methods to research, considering costs, access, and ethical issues.
- Apply appropriate analytical tools to analyses research findings and data.
- Discuss the pros and cons of approaches to data collection and analysis.

Communicate the Outcomes

Communicate the outcomes of a research project to identified stakeholders.

- Communicate a critical overview of the research findings to the target audience in an acceptable manner.
- Show how the results met the research objectives by making valid, well-supported recommendations.

Reflection

Reflect on the application of research methodologies and concepts

- Consider the efficacy of the research methods used to achieve the research project objectives
- Analyse the findings and make recommendations for changes and future research considerations
- Examine alternative research methodologies and lessons learned.

6. Project Evidence

Evidence checklist	Summary of evidence required by student which has to be incorporated in the Project. Report or Project Presentation	Evidence
Research Proposal	Clearly outlines a research questions or theory, as well as a literature review to back it up	Project Report
Conduct and Analyse Research	Conduct primary and secondary research using appropriate methods for a computing research project.	Project Report
Communicate the Outcomes	Communicate the outcomes of a research project to identified stakeholders.	Project Report/Presentation
Reflection	Reflect on the application of research methodologies and concepts.	Project Report

7. Project Guidelines

You should follow the below guidelines while implementing the Project:

- Implement the project in the technical environment specified in the Project brief.
- Follow the format specified for Project Report and Project Presentation
- The project report and presentation should be submitted at least 2 days before the date of Summative Assessment date.
- Present the Milestones in every mentoring Session and seek the mentor's
- feedback and review. Incorporate the feedback in your project.
- Attach all project evidence for each milestone as part of your Project report.

8. Project Assumptions

You can make following assumptions while implementing the project:

- o Create project using selected skillful technologies
- o Interface with Database

9. Project Technical Environment

The student should perform the project in the following environment.

- o Any back-end technologies
- o Any front-end technologies
- o CMS
- o Microsoft Project/Excel/Project Libre or any tools
- o MySQL Database
- o phpMyAdmin / MySQL Client
- o Eclipse
- o Notepad / Text pad
- o Microsoft Word
- o Microsoft PowerPoint