Niagara College Canada

TORONTO SCHOOL OF MANAGEMENT

Assessment Title: Prototype – 1

Software Development Project Proposal and Presentation – 30% (100 Points)

Program: Computer Programming

Course: Community Sponsored Project

Percentage: 30% of Total Grade (100 Points)

Due Date: Week 4 (Issued in week 2)

Outcomes Evaluated: 01, 02, 03

Objective: To assess students' ability to conceptualize, design, and propose a software development project by defining a problem, proposing a technical solution, and creating a structured implementation plan. Students will also develop presentation skills to effectively communicate their proposals.

Instructions for Students

Follow the instructions to prepare a professional Project Proposal for the assigned project and deliver a presentation during Week 4.

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1. Software Development Project Proposal

a. Task:

Your team must prepare a professional project proposal for the software solution addressing the real-world problem/project assigned to you. The proposal must:

- Clearly define the problem and target audience.
- Propose an innovative software solution.
- Provide technical specifications, design details, and a project implementation plan.

b. Guidelines:
Your proposal should include the following sections:

1. **Title Page:**
    - Project title, name of the requester/client, submission date.
    - Names, roles, and contributions of all team members.
2. **Executive Summary:**
    - A concise overview of the project, including the problem statement, proposed solution, key benefits, and expected outcomes.
3. **Problem Statement and Target Audience:**
    - Define the problem your software solution addresses.
    - Identify the primary users or beneficiaries and explain their needs.
4. **Proposed Solution and Features:**
    - Describe your software solution, aim and goals, highlighting key functionalities, features, and innovations.
    - Explain how the solution aligns with the problem and benefits the target audience.
5. **System Design and Technical Architecture:**
    - Include diagrams (e.g., UML diagrams, ER or Data Flow Diagrams) to illustrate the software architecture.
    - Describe the technology stack, including programming languages, frameworks, and tools.
6. **Project Plan – Timeline and Milestones:**
    - Provide a detailed timeline with milestones using Gantt charts or PERT charts.
    - Define key phases such as requirements gathering, design, development, testing, and deployment.
7. **Risk Analysis and Mitigation Strategies:**
    - Identify potential technical, operational, and project management risks.
    - Propose strategies to mitigate these risks effectively.
8. **Team Roles and Responsibilities:**
    - Clearly outline the roles of each team member and their responsibilities.
    - Match individual skills to specific project tasks.
9. **Budget and Resources:**
    - Provide a realistic estimate of the resources required, including hardware, software, and human resources.

10. **Software Requirements Specification (SRS):**
    - Include functional and non-functional requirements.
    - List any external APIs, libraries, or services you plan to integrate.
11. **References and Supporting Documents:**
    - Properly cite all resources used, including academic references, documentation, and tutorials.

c. Submission:
Upload the completed proposal to Canvas by the end of Week 4.

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2. Presentation

a. Task:
Your team will deliver a **10-minute presentation** to the class during Week 4 to showcase your project proposal.

b. Guidelines:

- Highlight the key components of your proposal:
    - Problem Statement and Target Audience
    - Proposed Solution and Features
    - System Design and Technical Architecture
    - Project Plan and Milestones
    - Risk Analysis and Mitigation Strategies
- Use professional visual aids (e.g., PowerPoint slides, prototypes, or mockups).
- Ensure clarity, professionalism, and team participation.

c. Submission:

- Submit your presentation slides on Canvas before your scheduled presentation.

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3. Grading Rubric

Each criterion is evaluated on a 5-level scale:

Exceptional (10), **Excellent (8)**, **Satisfactory (6)**, **Needs Improvement (4)**, and **Unsatisfactory (0)**.

Criteria	**Details**	**Exceptional (10)**	**Excellent (8)**	**Satisfactory (6)**	**Needs Improvement (4)**	**Unsatisfactory (0)**
Executive Summary	Provides a concise overview of the project, including the problem, solution, and key benefits.	Clear, concise, and engaging summary that captures all key elements effectively.	Clear summary, slightly lacking in detail.	Covers basic points but lacks depth or clarity.	Missing key elements or unclear.	Does not provide a meaningful summary.
Problem Statement and Target Audience	Clearly defines the problem and explains the target audience's needs.	Comprehensive definition of problem with strong alignment to audience needs.	Clear and relevant definition with minor gaps.	Adequately defines the problem but limited relevance to audience.	Problem or audience definition is vague.	Fails to define the problem or target audience.
Proposed Solution and Features	Clearly describes the software solution, features, and innovative aspects.	Solution is innovative, detailed, and well-aligned to the problem.	Solution is detailed and relevant but lacks innovation.	Solution is relevant but lacks sufficient detail.	Solution is unclear or lacks relevance.	No clear solution provided.
System Design and Technical Architecture	Includes diagrams, architecture, and justification for chosen technologies.	Comprehensive diagrams and strong technical justification.	Clear diagrams and sound justification but minor gaps.	Basic diagrams with minimal justification.	Incomplete or unclear diagrams.	No meaningful technical architecture provided.
Project Plan – Timeline and Milestones	Outlines phases and milestones with Gantt or PERT charts.	Detailed and realistic plan with clear milestones and timelines.	Clear plan with minor gaps in detail or realism.	Basic plan with incomplete milestones or timelines.	Limited plan with significant gaps.	No clear plan or timeline provided.
Risk Analysis and Mitigation Strategies	Identifies risks and proposes realistic mitigation strategies.	Comprehensive risk analysis with practical mitigation strategies.	Good risk analysis but mitigation strategies could be stronger.	Basic risk analysis with limited mitigation.	Incomplete or unrealistic risk analysis.	No meaningful risk analysis provided.
Team Roles and Responsibilities	Clearly outlines team roles and their relevance to project success.	Detailed roles and responsibilities aligned with team strengths.	Clear roles and responsibilities with minor gaps.	Basic roles defined, limited alignment to project.	Vague roles and responsibilities.	Roles not defined or irrelevant to the project.
Citations and References	Provides accurate citations and references for sources used in the proposal.	All references are properly formatted, accurate, and relevant.	References are mostly accurate with minor formatting errors.	Basic references with some inaccuracies or missing sources.	Limited or incomplete references.	No citations or references provided.
Presentation Content	Effectively communicates the problem, solution, and technical aspects.	Engaging and clear, presenting all key points effectively.	Clear and relevant, but lacking full engagement.	Covers basics but lacks depth or clarity.	Unclear or poorly structured content.	Fails to convey key points or ideas effectively.
Presentation Delivery	Professional and engaging delivery with clear visuals.	Polished, professional delivery with excellent visuals and teamwork.	Professional with minor lapses in engagement or visuals.	Adequate delivery but lacks polish or clarity.	Disorganized delivery or minimal use of visuals.	Poor delivery with no meaningful visuals.

Scoring Guidelines

- **Total Marks: 100 Points**
- Each criterion is worth **10 points**, with a total of 10 criteria.
- The minimum score for a category is **0** (Unsatisfactory).

Key Notes

1. **Citations and References:**
   - Use a recognized citation style (e.g., APA, IEEE).
   - Ensure all references are relevant and properly formatted.
   - Include citations for diagrams, technical resources, and external APIs or tools.

The End.