INTERNATIONAL SCHOOL OF MANAGEMENT AND TECHNOLOGY
NEPAL

FACULTY OF COMPUTING

UNIT TITLE	Unit 6: Planning a Computing Project (Pearson-set)		
UNIT CODE	T/615/1625	LEVEL	4 (Core)
STUDENT NAME		CREDIT VALUE	15
ASSESSMENT TITLE	Planning a Computing Project	WORD COUNT	
ASSESSOR	Roshan Chapagain	I.V.	
ASSIGNMENT ISSUE DATE	08/12/2023	ASSIGNMENT SUBMISSION DATE	28/01/2024
ORIGINAL SUBMISSION		ASSIGNMENT NO.	

ASSESSMENT CRITERIA TO BE ASSESSED IN THIS ASSIGNMENT
(Identify all criteria to be assessed in this assignment)

Assignment Criteria	P1	P2	P3	P4	P5	P6	P7	P8	
Achieved									
	Merit Criteria					**Distinction Criteria**			
Assignment Criteria	M1	M2	M3	M4		D1	D2		
Achieved									

Important:

- **Read the plagiarism notice and requirements at Page 9**

- **Word-limit- 8000 words** *(excludes cover page, table of content, figures, graphs, reference list, appendix and logbook)*

- **Accepted Sources: Research Papers** *(Journal Articles, Conference Proceedings, Thesis), Text Books, Governmental Data, Websites (only a registered organization, an educational institution, government agency)*

- **Information taken from unreliable sources will not be accepted**

- **Must follow Harvard Reference Style**

- **Assignment must be submitted through the Plagiarism Detection Tool**

Purpose of this assignment

The purpose of this assignment is to demonstrate whether students possess the research skills required for developing a deeper understanding of a subject and the ability to use evidence to inform decisions. Students will undertake independent research and investigation of a theme. Students will use the outcomes of their research to help them plan a computer based project and to support recommendations for how the identified business could utilize the tools and technologies identified as part of their research.

The course Tutor will

- Ensure that the research topic is relevant to the project theme provided in the assignment brief
- Ensure that the topic and type of research chosen by the student is appropriate for small-scale research and the student can complete it within the given time frame
- Ask the Programme Leader to verify the research topic as part of the internal verification process.
- Include in his teaching plan how the student should go about data collection, analysis and making informed decisions
- Encourage students to keep notes of their progress in a logbook, as this is a mandatory requirement for this unit.

ASSIGNMENT SCENARIO

Scenario

Big data, originally defined as large volumes of information generated from multiple sources, has evolved to encompass large amounts of information that cannot be processed conventionally or by humans without computational intervention. It can be stored in structured, unstructured, or semi-structured formats. The daily generation of big data necessitates the development of machine learning systems to quickly identify patterns and solve problems. As these systems continue to evolve, a new discipline of data science

analytics has emerged to design and test these systems. The use of big data opens opportunities for organisations to make more accurate decisions, identify potential risks, and minimise costs without compromising innovation. However, the rapid application of big data raises security concerns, ethical issues, and sustainability concerns in energy requirements for large data warehouses. This theme aims to explore these topics from the perspective of a prospective computing professional or data scientist, examining the applications, benefits, and limitations of big data while exploring responsibilities and solutions to its problems.

The Project:

Inside-X IT solutions is a startup tech company that was founded in 2021, in Kathmandu Nepal. They have various clients across different industries like Healthcare, Manufacturing, Banking and Retail. They primarily develop big data solutions for these clients. To help with their business, Inside-X IT solutions needs a website. The website will be like an online portfolio wherein the potential clients can see the projects undertaken by Inside-X IT solutions. General information about the company like contact details, location, about information also needs to be displayed. Additionally the user should be able to contact them and request a quote for any product or services.

The Research:

Although the project development team has been developing business analytics solutions for manufacturing and retail business, they want to expand their customer base to banking and healthcare organisations.

As a research intern, your task is to carry out a research project on a topic related to the area below.

Application of Big Data and IoT/AI to potential future developments e.g., automated manufacturing, medicine and healthcare, banking, virtual worlds, scientific research etc.

The research would identify and explore a particular area, assess the use of big data applications in the particular field, and suggest how companies could utilise big data effectively to improve their operations, expand business and increase the profit margins. The outcomes of this research, would be a motivating factor for the company to venture into the new field.

Further, they want you to conduct a detailed report that explores the features and business requirements of Inside-X IT solutions in the context of Nepal's private sector.

Further, you will create a project management plan for the website to be developed. Some of the requirements are already mentioned above. You can add the functionalities in the website as

required.

ASSIGNMENT TASKS

Assignment Task

The Specific tasks that you will carry out are:

Part 1: Research
Essentially you will:
1. Establish your aims and objectives of the research
2. Apply a range of secondary research sources to plan/scope and support the project and its findings. Secondary research sources may include textbooks, journal articles, newspapers and magazine articles (not factual accounts).
3. Conduct a primary research to generate knowledge which will form the basis for analysis of the scenario posed in the brief.
4. Analyze your findings and draw conclusions to form the basis for recommendations.
5. Present the report in written format and also prepare a presentation that includes research process and outcomes to the audience who has little or no knowledge on the research process.
6. Write recommendations based on the research findings and outcomes.
7. You have to maintain a logbook, to record the meetings with your supervisor and the tasks done every week during the research project timeline. Use the template given below for the logbook.
   For a higher grade you may:
   Analyse data and information from primary and secondary sources to generate knowledge on an identified theme.

Part 2: Report on Features and Business requirements of organisations in an identified sector:
1. You will discuss the feature and operational areas of a business (Inside-X IT Solutions) in an identified sector .
2. You will also discuss the role of stakeholders and their impact on the success of a business.

For a higher grade you may also,
1. Analyse the challenges to the success of Inside-X IT Solutions in the identified sector.
2. And Interpret findings of your research to generate knowledge on how the research theme supports the business requirements in the identified sector.

Part 3: Project Management Plan

In this part you will prepare a detailed project management plan for creating the website discussed above. The project management plan needs to include the following :

- Project Scope statement
- Work Breakdown structure
- Gantt Chart
- Resource plan
- Budget plan / Costing
- Risk Management Plan
- Communication plan

For a higher grade you could produce a more comprehensive plan that effectively consider aims, objectives and risk/benefits for the organisation.

You will also need to:

- Communicate appropriate project recommendations for technical and non technical audiences.
- Present arguments for the planning decisions made when developing the project plans.
- Discuss the accuracy and reliability of the different research methods that you applied during the feasibility study.

For a Higher Grade you may also:

- Assess the extent to which the project recommendations meet the needs of the organisation, including fully supported rationales for planning decisions made.
- Evaluate the project planning recommendations made in relation to the needs of the identified organisation and the accuracy and reliability of the research carried out.

Guidance for Students

You should read this information before starting on your project. You should refer to these instructions as you complete work for this unit.

- Read the brief and think about what the project brief is asking.
- Research what the project brief is asking. How can you approach the problem, opportunity, hypothesis and requirements being posed?
- Apply a range of secondary research sources to plan/scope and support the project and its findings. Secondary research sources may include textbooks, journal articles, newspapers and magazine articles (not factual accounts).

- Develop your project plan based on the deliverables of the project, the constraints of the project and the assumptions made.
- Conduct your project according to your stated project plan and meet with your tutor to receive a sign-off at each stage of the project process.
- Primary research sources may include original first-hand accounts, legal and historical documents, results of experiments and market research data collection. Apply both qualitative and quantitative research methods to evaluate data collected from primary research.
- Keep notes of your progress throughout the project in your **logbook** using the format given below. The logbook should include:
  o A record of what you did, when and what you were thinking.
  o A record of where things went wrong and what you did to overcome any unexpected results.
- You must complete the project in order to complete your work for this unit.

Appendix I

Templates for Evidence Collection (you can use the below given template to prepare a logbook)

The logbook template and performance review questions are examples of what can be used, tutors can devise or use other appropriate resources if they wish to do so.

Name:
Project title:
Date:
1. **Update on weekly research/tasks achieved**
   Points to consider:

   - What have you completed?
   - Did you fulfil task requirements?
   - Are you on track and within deadlines set?
   - Did you need to make any changes to your project management plan?

2. **Any risks and/or issues identified?**
   Points to consider:

   - Did you identify risks/issues with a lack of skills required for undertaking research/tasks?
   - Did you identify any additional risks/issues that have an impact on the project

management plan?

3. **Problems encountered**
   Points to consider:

   - What barriers did you face?
   - How did you overcome them?

What have I learnt about myself this week?
   Points to consider:

   - How did I feel when I had to deal with tasks/problems?
   - Did I find it useful to complete the tasks?
   - How well have I performed? What did I contribute?
   - What can I improve on next week?
   - How might this learning apply in the future?

Tasks planned for next week
   Points to consider:

   - Which tasks are priority?
   - Have you set aside sufficient time for completion?

Project plan status to date (on, ahead, behind)
Supervisor comments to address

LEARNING OUTCOMES AND ASSESSMENT CRITERIA

Pass	Merit	Distinction
LO1 Conduct small-scale research, information gathering and data collection to generate knowledge on an identified subject		
P1 Demonstrate qualitative and quantitative research methods to generate relevant primary data for an identified theme. P2 Examine secondary sources to collect relevant secondary data and information for an identified theme.	**M1** Analyse data and information from primary and secondary sources to generate knowledge on an identified theme.	**LO1 & LO2** **D1** Interpret findings to generate knowledge on how the research theme supports business requirements in the identified sector.
LO2 Explore the features and business requirements of organisations in an identified sector		
P3 Discuss the features and operational areas of a businesses in an identified sector. P4 Discuss the role of stakeholders and their impact on the success of a business.	**M2** Analyse the challenges to the success of a business in an identified sector.	
LO3 Produce project plans based on research of the chosen theme for an identified organisation		**LO1 & LO2** **D2** Evaluate the project planning recommendations made in relation to the needs of the identified organisation and the accuracy and reliability of the research carried out.
P5 Devise comprehensive project plans for a chosen scenario, including a work and resource allocation breakdown using appropriate tools.	**M3** Produce comprehensive project plans that effectively consider aims, objectives and risks/benefits for an identified organization.	
LO4 Present your project recommendations and justifications of decisions made, based on research of the identified theme and sector		
P6 Communicate appropriate project recommendations for technical and nontechnical audiences. P7 Present arguments for the planning decisions made when developing the project plans. P8 Discuss accuracy and reliability of the	**M4** Assess the extent to which the project recommendations meet the needs of the identified organisation, including fully supported rationales for planning decisions made.	

different research methods applied.		

Plagiarism Notice

You are reminded that there exist **Academic Misconduct Policy and Regulation** concerning **Cheating and Plagiarism**.

Extracts from the Policy:

Section 3.4.1: Allowing others to do assignments / Copying others assignment is an offence

Section 3.4.2: Plagiarism, using the views, opinion or insights / paraphrasing of another person's original phraseology without acknowledgement

Requirements

- It should be the student's own work – **Plagiarism is unacceptable**.
- Clarity of expression and structure are important features.
- Your work should be submitted as a **well presented**, word-processed document with headers and footers, and headings and subheadings.
- You are expected to undertake research on this subject using books from the Library, and resources available on the Internet.
- Any sources of information should be **listed as references** at the end of your document and these sources should be referenced within the text of your document using **Harvard Referencing** style
- Your report should be illustrated with screen-prints, images, tables, charts and/or graphics.
- All assignments must be typed in **Times New Roman**, **font size** 12, 1.5 **spacing**.

The center policy is that you must submit your work within due date to achieve "Merit" and "Distinction". Late submission automatically eliminates your chance of achieving "Merit and Distinction". Also, 80% attendance is required to validate this assignment.

Assignment Prepared By	Signature	Date
Sheela Poudyal	**SHEELA**	16/09/2023
Brief Checked By	**Signature**	**Date**
Dhruba Babu Joshi		25/09/2023