INTERNATIONAL SCHOOL OF



MANAGEMENT & TECHNOLOGY  
NEPAL

**FACULTY OF COMPUTING**

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| UNIT TITLE | Unit 22: Application Development | | |
| UNIT CODE | Y/618/7436 | LEVEL | 5 (Core) |
| STUDENT NAME |  | CREDIT VALUE | 15 |
| ASSIGNMENT TITLE | Elevate Workforce Solutions | WORD COUNT |  |
| ASSESSOR | Bipin Dhakal | I.V. |  |
| ASSIGNMENT ISSUE DATE | January 03, 2025 | ASSIGNMENT SUBMISSION DATE | March 08, 2025 |
| ORIGINAL SUBMISSION |  | ASSIGNMENT NO. | 1/1 |

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

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| Assignment Criteria | P1 | P2 | | P3 | | P4 | | P5 | | P6 | |  | | |
| Achieved |  |  | |  | |  | |  | |  | |
|  | **Merit Criteria** | | | | | | | | | | **Distinction Criteria** | | | |
| Assignment Criteria | M1 | | M2 | | M3 | | M4 | | M5 | | | D1 | D2 | D3 |
| Achieved |  | |  | |  | |  | |  | | |  |  |  |

**Important:**

* **Read the plagiarism notice and requirements at Page 7**
* **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**

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| **Assignment Submission Format** |
| Each student has to submit their assignment as guided in the assignment brief. The students are guided what sort of information is to produce to meet the criteria targeted. You are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. |

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| **Unit Learning Outcomes** |
| * **LO1** Produce a software design document for a business-related problem based on requirements * **LO2** Research design and development tools and methodologies for the creation of a business application * **LO3** Plan and produce a functional business application with support documentation * **LO4** Evaluate the performance of a business application against its software design document and initial requirements. |

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| **Assignment Scenario** |
| You’ve been just hired as a web developer by a reputed IT company, Code Art Web Technologies. The company helps build the online presence of local organizations through sophisticated, innovative and easy to use websites.  Your first job in the company is to design and build a job portal for a new client, Elevate Workforce Solutions, to digitize their current processes and promote the company.  Elevate Workforce Solutions is a well-established employment agency based in Nepal, providing better employment opportunities. The company wants to grow with the help of technology and make their services available to broader demographics. The company wants to promote equal opportunities, provide transparency and easy access to more jobs, which they believe is possible through a well-designed website.  The company is looking for the following features, but not limited to:  - Secure and effective authentication system with registration, login, logout, functionality  - Display all the job listings with proper pagination  - Ability to add/update/delete jobs by their respective logged in companies  - Job application listings on respective companies’ dashboard page  Criteria:  This assignment should include the following things:  1. Documentation regarding the project and the solutions proposed.  2. UML diagrams for the classes required.  3. Implementation using any programming language.  4. Strictly follow the object-oriented paradigm.  5. Strictly follow MVC (Model, View, and Controller) design of software programming. |

**ASSIGNMENT TASKS**

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| **Assignment activity** |
| **Activity 1**  **Produce a** software design document for a business-related problem based on requirements and Research design and development tools and methodologies for the creation of a business application   * **Explore a business-related problem** and produce a well-defined Problem Definition Statement supported by a set of user and system requirements. * **Review** **areas of risk** related to the successful development of your application. * **Research** the use of **software development** **tools** and **techniques** and **identify** any that have been selected for the **development** of this application.   For a higher grade   * **Analyze a business- related problem** using appropriate **methods** and **produce** a well-structured **Software Design Document** that defines a proposed solution and includes relevant details on requirements, system analysis, system design, coding, testing and implementation. * **Compare** the differences between the various **software** **development** **tools** and **techniques** researched and **justify** your **preferred selection** as well as your preferred **software development methodology**. * **Evaluate** the solution to a business-related problem and the preferred software development methodology by comparing the various software development tools and techniques researched.   **Activity 2**  **Produce Presentation slides** to show plan and produce a functional business application with support documentation:   * Effectively **review** your plan for the business **application**, **problem** definition statement, **proposed** solution and development **strategy**. ***Use this presentation as part of a peer-review and document any feedback given***. Interpret your peer review feedback and identify opportunities not previously considered * **Develop** a **functional business application** based on a specified business problem.   For a higher grade:   * **Develop** a **functional business application** based on a specific Software Design Document with **supportive** **evidence** of using the ***preferred tools, techniques and methodologies***.   **Activity 3**  **Evaluate the performance** of a business application against its software design document and initial requirements.   * **Review the performance** of your **business** application against the Problem Definition Statement and initial requirements.   For a higher grade:   * **Critically review** the design, development and testing stages of the application development process including risks. * **Justify improvements** to the business application system made because of feedback and also feedback which was not acted upon, including opportunities for improvement and further development. |

**Learning Outcomes and Assessment Criteria**

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| Pass | Merit | Distinction |
| **LO1** Produce a software design document for a business-related problem based on requirements | | **D1** Evaluate the solution to a business-related problem and the preferred software development methodology by comparing the various software development tools and techniques researched. |
| **P1** Produce a well-defined problem definition statement, supported by a set of user and system requirements for a business problem.  **P2** Review areas of risk related to the successful development of a proposed application. | **M1** Analyze a business-related problem using appropriate methods to produce a well-structured software design document. |
| **LO2** Research design and development tools and methodologies for the creation of a business application | |
| **P3** Research the use of software development tools and techniques for the development of a proposed application. | **M2** Justify the software development tools and development methodology selected |

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| Pass | Merit | Distinction |
| **LO3** Plan and produce a functional business application with support documentation | | **D2** Justify improvements to the business application system made because of feedback and also feedback, which was not acted upon, including opportunities for improvement and further development. |
| **P4** Conduct a peer review of the problem definition statement, proposed solution and development strategy, documenting any feedback given.  **P5** Develop a functional business application with support documentation based on a specified business problem. | **M3** Interpret peer-review feedback and identify opportunities not previously considered.  **M4** Develop a functional business application based on a specific software design document, with supportive evidence of using the preferred tools, techniques and methodologies. |
| **LO4** Evaluate the performance of a business application against its software design document and initial requirements. | |
| P6 Review the performance of the business application against the problem definition statement and initial requirements. | **M5** Critically reviews the design, development and testing stages of the application development process including risks. |

**Plagiarism Notice**

You are reminded that there exists **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 offense

**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 the 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.**

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| **Assignment Prepared By**  Sheela Paudyal | **Signature:** | **Date:**  December 19, 2024 |
| **Brief Checked By**  Dhruba Babu Joshi | **Signature:** | **Date:**  December 26, 2024 |