Canterbury Institute of Management (CIM)

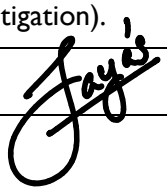
ASSESSMENT COVER SHEET

1. Personal Details			
Student ID	**Given Name(s)**	**Surname**	**Email Address**
1. CIM12137	Ayesh Chathuranga	Jayasekara	cim12137@ciom.edu.au
Campus	Darwin Campus		
Course Title and Code	MSIT401 System Development Methodologies		
Assessment Title	Reflective Journal - *Week 6*		
Due Date & Time	10/11/2024		
Course Lecturer/Tutor Name: Sharad Neupane		Assessment Word Count (if applicable): 337	

2. Student Declaration

By signing and submitting this coversheet, I/we declare that:

- ✓ This assessment submission is my/our own work unless otherwise acknowledged (including the use of generative AI tools) and is in accordance with the Institute's ***Academic Integrity and Honesty Policy*** available on the website.
- ✓ No part of this assessment has been submitted previously for advanced standing or academic credit in this or any other course.
- ✓ I/we certify that we have not given a copy or have shown a copy of this assessment item to another student enrolled in the course, other than members of this group.
- ✓ I/we are aware that the Lecturer/Tutor of this assessment may, for the purpose of assessing this assessment task communicate a copy of this assessment task to a plagiarism checking service to detect possible breaches of academic integrity, for example, plagiarism, recycling, cheating, contract cheating, or unauthorised use of generative AI (which may then retain a copy of the item on its database for the purpose of future investigation).

Signature:		Date:	10/11/24

Canterbury Institute of Management
63 Oxford Street, DARLINGHURST NSW 2010 | 21 Regent Street, REDFERN NSW 2016 | 2 Printers Place, DARWIN CITY NT 0800 | 399 Lonsdale Street, MELBOURNE VIC 3000
Phone: +61 2 8007 5846 | Website: https://ciom.edu.au/
TEQSA Provider ID: PRV14258 | CRICOS Provider Code: 03809A

MSIT401 System Development Methodologies

Reflective Journal - *Week 6*

Ayesh Jayasekara - CIM12137

Data and Process Modelling

Learnt the basic techniques used to capture basic system requirements using,

- Logical and physical models - Concept of four model approach
- Context Diagrams - High level system diagram
- Multiple levels of data flow diagrams - Decomposed views of system with greater detail to internal processes
- Level and balance data flow diagrams - What to do & not to do when drawing data flow diagrams
- Data dictionary - How to capture data attributes that needs the system to function properly and in expected way

Data and Process Modelling - In Action

All of these techniques are critical when designing and implementing new systems or refactoring existing systems. The four model approach is extremely important approach as it gives both current system and new system overview in both logical and physical worlds making it a great way to interpret system and its scope for decision-making such as managerial decisions.

Context Diagrams & Data Flow Diagrams

These diagrams are simple to draw but they are important in describing system boundaries and their functions and sub functions for all technical and non-technical people. We should always start with a context diagram to establish on system and its boundaries and various external entities (users, other systems whatever it may be) so that we can then drill down to data flow diagrams to explain how data is flowing within the internal subcomponents. It is also important to balance and level these diagrams so readers do not get confused of unexplained processes or magical appearance of new unexplained data flows.

Important - Modelling Techniques

Further reading according to (Cater, 2014), about two decades ago system analysts used to write system requirements using simple english which lead to documentations with large count of pages or books which you need to read cover-to-cover. But with these modelling techniques we can describe comprehensively using diagrams and simple format, extremely shortening time taken to produce such diagrams as well.

It is important to start with these system models in approaching to any new system or refactoring regardless of the size of the system.

Bibliography

Cater, R. (2014). *Students' Guide to Information Technology (2nd ed.)* [https://www.perlego.com/book/1883965(visited 2024-11-10)]. Newnes.

Evaluation Comments