



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

Semester I 2023/2024

Subject : Technology and Information System (SECP1513)
Session : 2023/2024 Semester 1
Task : Design Thinking (Report)
Due : 27/1/2024 (Saturday) before 12.00 am
Submission : This is a **GROUP WORK** and submit it **INDIVIDUALLY**.
Submit a softcopy (.docx) with the given formatting via UTM E-learning and a softcopy (.pdf) via your GitHub e-portfolio

Instruction:

Students are required to write a group report. Design thinking is a process of critical thinking used to develop solutions to problems through collaboration, innovation and design. Design thinking helps prepare student for a world where skills such as teamwork, problem solving, communication, analysis, creativity and the ability to influence others is becoming increasingly important in the work force. Students need to record and document all the process in design thinking which empathy, define, ideate, prototype and testing.

More details on how to write the report, please refer to: <https://www.theclassroom.com/write-academic-report-5453496.html>

There is a type of assessment in the design thinking:

1. This report will contribute **10%** of the course assessment.
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REPORT (10%)

Write a report on these details:

1. Introduction:
 - a. Refer back to the given chapter for your group.
 - b. Identify related problems with that chapter.
2. Detail steps and descriptions in design thinking and evidence for each phase (For example, to use the video, image and log journal, team progress, brainstorm idea and others)
3. Detailed descriptions include problem, solution and team working
4. Design thinking assessment points, when should assessment happen:
 - a. During the end of the project demonstration
 - b. During the transition between design thinking phases
5. Design thinking evidence:
 - a. The sample work by students working to solve the design challenge
 - b. Record for each phase:
 - i. Empathy: List of possible question and answer for user, and the composite character (User: age, background, and others)

- ii. Define: List of define (For example, unfulfilled felicity needs to evaluate career possibilities based on emotion)
 - iii. Ideate: Brainstorm process
 - iv. Prototype: How the prototype is developed?
Refer to this link for samples of different prototypes (Low-fidelity prototypes): <https://www.interaction-design.org/literature/article/prototyping-learn-eight-common-methods-and-best-practices>
 - v. Test: Test the prototype to the user
6. Reflections (Individual task):
- a. What is your goal/dream with regard to your course/program?
 - b. How does this design thinking impact on your goal/dream with regard to your program?
 - c. What is the action/improvement/plan necessary for you to improve your potential in the industry?
7. The list of tasks for each member

You are encouraged to ask questions and find out more about design thinking. The limit for the report is 1500 - 2000 words. You may also include tables or figures to support your content (excluded from the word limit).

Note: Item (3) is the most important content of your report, please write your opinion and views based on the questions.

Each group should write the report in your own words. **PLAGARISM of the content is prohibited.** If any of the content is known to be copied from other website/review/blogs, you will be given **0 mark!** You can get photos/information from other resources, but you must **include credits (in citation/link)** to the original owners.

Report Rubric (10%)

Criteria	Excellent 10-7	Fair 6-4	Basic 3-0	Weightage	Mark
Contents	Report contents: Introduction, Details of design thinking process, detailed descriptions include problem, solution and team working during the design thinking process			20	<div style="display: flex; justify-content: space-between; align-items: center;"> _____ X 20 </div> <div style="text-align: center;">10</div>
	All contents included	Included but not well covered	Included but poorly covered		
Reflection	1. What is your goal/dream with regard to your course/program? 2. How does this design thinking impact on your goal/dream with regard to your program? 3. What is the action/improvement/plan necessary for you to improve your potential in the industry?			15	<div style="display: flex; justify-content: space-between; align-items: center;"> _____ X 15 </div> <div style="text-align: center;">10</div>
	Excellent explanation of point 1-3	Fair explanation of point 1-3	Poor explanation of point 1-3		
Organization	Good organization, points are logically ordered	Some organization, points are jumpy	Poorly organized, no logical progression	5	<div style="display: flex; justify-content: space-between; align-items: center;"> _____ X 5 </div> <div style="text-align: center;">10</div>
Design thinking phases	Good descriptions and information flow are well organized	Some information flows are jumpy	Poorly organized, no logical information flow	15	<div style="display: flex; justify-content: space-between; align-items: center;"> _____ X 15 </div> <div style="text-align: center;">10</div>
Empathy	Good descriptions of user empathy, including variety of insights and deep needs	Limited descriptions of user empathy	Little to no descriptions of user empathy	5	<div style="display: flex; justify-content: space-between; align-items: center;"> _____ X 5 </div> <div style="text-align: center;">10</div>

Criteria	Excellent 10-7	Fair 6-4	Basic 3-0	Weightage	Mark
Define	The original challenge is clearly re-framed around a user where needs are stated as verbs to describe an activity or desire for an area where that user needs help	The original challenge is not clearly re-framed	The original challenge is not re-framed	5	$\frac{\quad}{10} \times 5$
Ideate	Divergent thinking results in a large, diverse range of ideas and concepts	Convergent thinking results in limited range of ideas and concepts	Few ideas generated	5	$\frac{\quad}{10} \times 5$
Prototyping	Prototyping provides a solution for user needs	Prototyping provides partial solution for user needs	Little or no prototyping accomplished	5	$\frac{\quad}{10} \times 5$
Test	Demo and test the prototyping to the users	Demo and test partial prototyping to the users	Little or no prototyping testing	5	$\frac{\quad}{10} \times 5$
Formatting & table of content	Good use of fully formatting in MS Word	Fairly use of formatting in MS Word	Poorly use of formatting in MS Word	5	$\frac{\quad}{10} \times 5$
Use of Tables & Figures	Extensive use of tables and figures effectively to show the understanding regarding the topic	Limited use of some tables or figures to show the understanding regarding the topic	No tables and figures are used	5	$\frac{\quad}{10} \times 5$

Criteria	Excellent 10-7	Fair 6-4	Basic 3-0	Weightage	Mark
Grammar, Usage, and Spelling	No errors	Some errors	Numerous errors distract from understanding	5	$\frac{\quad}{10} \times 5$
Timeliness	Report on time	Report one day late	Report more than one day late	5	$\frac{\quad}{10} \times 5$
Total					100