FACULTY OF COMPUTING
UTM Johor Bahru

Semester I 2023/2024

Subject : Technology and Information Systems (SECP 1513)
Section : 01/02/03/04/05/06/07/MJIT
Task : Design Thinking
Due : 23/12/2024 (Report & Video); Presentation as scheduled. (submit softcopy (.docx) with formatting via e-learning & a copy in your e-portfolio)

Instruction:

Students are required to write a group report, video and presentation (4-5 students). 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.

TEMA: BIG DATA AND ARTIFICIAL INTELLIGENT NEW INNOVATION

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

There are 3 type assessment in the design thinking:

1. This report will be 10% of the course assessment.
2. Video will be 5% of the course assessment.
3. Presentation will be 5% of the course assessment.

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1. REPORT-10%

The write a report on:

1. Introduction
2. Detail step and descriptions in design thinking and evidence for each phase (e.g 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: the list of define (e.g unfulfilled Felicity needs to evaluate career possibilities based on emotion)
iii. Ideate: Brainstorm process
iv. Prototype: How the prototype is developed?
v. Test: Test the prototype to the user

6. REFLECTIONS (INDIVIDU):
    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 task for each member

You are encourage to ask questions and find out more about design thinking. The limit for the report is 1000 - 1500 words. You may also include tables/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 from the questions.

Every student 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
Contents	Report contents: Introduction, Details of design thinking process, Detailed Descriptions include problem, solution and team working during the design thinking process		
	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?		
	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.

Design thinking phase	Good descriptions and information flow are well organize.	Some information flow are jumpy.	Poorly organized, no logical information flow.
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
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.
Ideate	Divergent thinking results in a large, diverse range of ideas and concepts. Selecting a few	Convergent thinking results in limited range of ideas and concepts.	Few ideas generated.
Prototyping	Prototyping provides a solution for user needs.	Prototyping provides partial solution for user needs.	Little or no prototyping accomplished.
Test	Demo and test the prototyping to the users.	Demo and test partial prototyping to the users.	Little or no prototyping testing.
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
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.
Grammar, Usage, and Spelling	No errors.	Some errors.	Numerous errors distract from understanding
Timeliness	Report on time	Report one day late	Report more than one day late

2. Video -5%

Students are required to create a video using any related software based on the theme given by the lecturer. The video include:

1. Introduction
2. Detail step and descriptions in design thinking and evidence for each phase (e.g 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: the list of define (e.g unfulfilled Felicity needs to evaluate career possibilities based on emotion)
        iii. Ideate: Brainstorm process
        iv. Prototype: How the prototype is developed?

The limit time for the video is 4-5 minutes.

Video Rubric -5%

Criteria	**Excellent** **10-7**	**Fair** **6-4**	**Basic** **3-0**
Contents	It covers all the topics in depth with details and examples. The knowledge of the topic is excellent	It includes essential information about the topic. The content seems to be good. But it has 1-2 mistakes in the facts The content includes minor details and it has several mistakes in the facts.	The content includes minor details and it has several mistakes in the facts.
Originality	The product @ video shows great originality. The ideas are creative and witty.	The product @video shows certain originality. It also uses ideas from other people (quoting them). The student uses ideas from other people without quoting them.	The student uses ideas from other people without quoting them.

Effective use of the software/ app	The student uses an adequate software or app. The student creates a video that show a wide range of features of the software or app in an engaging dynamic way.	The student uses an adequate software or app. The video shows problems with the use of the features of the software/ app. Quite a lot of more practice is needed.	The student does not use an adequate software or app.
Clarity	The overall quality of the video and the focus were excellent.	The quality of the video is not very good but the overall focus was excellent	The quality of the video and the focus are not very good.
Media	Multimedia	Video, text,image	Text, image
Time Limit	Less 3 minutes	More 5-4 minutes	10-6 minutes

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3. PRESENTATION- 5%

Present in the class as scheduled.

Rubric Presentation

Criteria	**Excellent** 10-7	**Fair** 6-4	**Basic** 3-0
Eye Contact	Hold attention of entire audience with the use of direct contact, seldom looking at notes.	Consistent use of direct eye contact with audience, but still returns to notes.	Display minimal eye contact with audience, while reading mostly from the notes.
Body Language	Movement seems fluid and helps the audience to visualize.	Made movement or gestures that enhance articulation.	Very little movement or descriptive gestures.
Verbal Skills	Highly responsive to audience comments and needs. Consistently clarifies, restates, and responds to questions. Summarizes when needed.	Generally responsive to audience comments and needs. Most of the time, clarifies, restates, and responds to questions, and summarizes when needed. Misses some opportunities for interaction.	Reluctantly interacts with audience. Responds to questions inadequately.

Organization	Student presents information in logical, interesting sequence which audience can follow.	Student presents information in logical sequence which audience can follow.	Audience has difficulty following the presentation because student jumps around.
Creativity	Very high creativity level. Student uses many graphics, pictures, video etc. Related, attractive and effective	High creativity level. Student uses many graphics, pictures, video etc. Related and effective.	Moderate creativity level. Student uses moderate graphics, pictures, video etc. Unrelated.
Personal Appearance	• Follow UTM Smart Day dress code • Polite to examiners • Positive attitude	• Casually dressed • Polite to examiners • Passive attitude	• Does not follow UTM Smart Day dress code • Impolite to examiners
Question and answer session	• Able to answer all questions • Answers reflect project understanding	• Able to answer some questions • Some answers are irrelevant to project objectives	• Unable or not attempting to answer questions or answers reflect lack of project understanding