



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SCHOOL OF COMPUTING**  
Faculty of Engineering

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# DESIGN THINKING ASSIGNMENT

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COURSE NAME : SECP1513 TECHNOLOGY AND INFORMATION SYSTEM  
SECTION : 06  
TITLE : CHAPTER 8 CLOUD COMPUTING  
LECTURER : DR SARINA BINTI SULAIMAN  
GROUP MEMBERS : GROUP 9

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# 1.0 INTRODUCTION

## What is design thinking?

Design thinking is an advancement in innovation that lets you create remedies for final consumers while keeping only one problem statement in mind. It can help you progress in your job in addition to teaching useful skills. It is also a team effort that requires practice with peers to become proficient at.

## Chapter 8

The chapter that was given to our group was Chapter 8 titled “Cloud Computing”. This chapter is all about the basic concepts of cloud computing, cloud service models, cloud computing deployment models, advantages of cloud computing, challenges of cloud computing and the top 10 Cloud Service Providers in 2023.

Cloud computing is the pay-as-you-go online supply of computing power, databases, storage, apps, and other IT services on demand. It makes it possible for you to use and think about your infrastructure as software rather than hardware. It also provides a range of service models to meet diverse demands and specifications. The three main cloud service models are Infrastructure as a service (IaaS), Platform as a service (PaaS), and Software as a service (SaaS).

Infrastructure as a service (IaaS) offers you the utmost adaptability and managerial authority over your IT assets. These services offer the fundamental components of cloud computing and usually give you access to virtual or dedicated computers, networking capabilities, and data storage. Next, Platform as a service (PaaS) lessen the requirement for you to oversee the underlying infrastructure (often operating systems and hardware), freeing you up to concentrate on the setup and upkeep of your apps. Lastly, Software as a service (SaaS) give you a finished product that is managed and operated by the service provider.

### **Identifying related problems with chapter 8**

The main problem that most of the cloud computing users especially new users were hesitating to deploy cloud computing due to uncertainty and lack of information. For instance, users are concerned about the security of their data. They might worry about possibility of their data leakage, unauthorized access and overall security measurements of cloud service providers. Additionally, the financial effects of employing cloud services may not be clear to users. It can be difficult to forecast the pay-as-you-go concept, and unforeseen costs can occur.

## **2.0 DETAIL STEP AND DESCRIPTIONS**

### **Empathy**

Empathy is to identify the needs and viewpoints of the target audience when creating designs. To obtain an understanding of end users' experiences, entails watching, interacting with, and developing empathy for them. In our interview, we found that the person we interviewed had problems with the possibility of data leakage, and the risk and cost implications of using cloud services.

### **Define**

Define is expressing your concern in a clear and concise manner using the understanding you gained from the empathize step. After we have interviewed our participants, we have combined the information in this stage to create a clear, and actionable problem description.

### **Ideate**

Ideate is to develop as many diverse solutions as you can for the stated problems. At this point, we encouraged innovation and receptivity by frequently employing ideation tools like brainstorming sessions. We provide 5 different solutions to our users so that they will find it much easier and more efficient to use cloud services.

### **Prototype**

Prototype is to create concrete depictions of the concepts that are developed in the brainstorming phase. These prototypes are used to test and refine prospective solutions. They can be sketches, wireframes, or even solid objects. But in our brainstorm session, we decided to do the prototypes by sketching them and also use a google form to imitate the survey form of our application.

## **Test**

Testing stage is to inquire the users for their opinions on the prototypes. We iteratively improved the solutions using this feedback. By implementing this testing stage, it verifies the hypotheses and makes sure that our finished product satisfies user needs.

## **3.0 DETAILED DESCRIPTION**

### **PROBLEM:**

Clients who are new or unfamiliar with cloud computing might hesitate to deploy cloud computing due to uncertainty and lack of information.

### **SOLUTION:**

After doing a group discussion, we decided that the solution to this problem is to develop a software application that assesses users' readiness, provides cost estimation, offers risk analysis, and guides them with educational resources for a seamless transition to the cloud. For example, we will introduce suitable cloud deployment models which are hybrid, cloud, or on-premises to specific clients.

### **TEAM WORKING:**

After doing our group's brainstorming session, we set a time to do a group discussion to discuss more about our design thinking problem and the solutions. Some of us aren't available to join the discussion face to face, so we decided to do it virtually by using the Webex Meet platform as it is easier for us as UTM students.

Initially, we encountered challenges in our design thinking process and actively sought solutions. Each team member contributed ideas to address our problems. Ultimately, we selected the most suitable solution. Before concluding our discussion, we equitably assigned design thinking tasks to each team member, ensuring everyone was comfortable with their responsibilities. When team members sought additional details or ideas to enhance task completion, we collaborated to provide support and shared our perspectives.

## **4.0 DESIGN THINKING ASSESSMENT POINTS**

### **a. DURING THE END OF THE PROJECT DEMONSTRATION**

At the end of our design thinking project, we found out that users were really happy and delighted with the service provided by our Clouding application. Clouding helped them in their business and guided them to choose a cloud platform that effectively addresses my concerns about data privacy and security. To them, Clouding service also has proven invaluable for their business, offering a cost-effective solution that aligns perfectly with their requirements, and ensures data leakage prevention, adding an extra layer of assurance to my business operations.

### **b. DURING THE TRANSITION BETWEEN DESIGN THINKING PHASES**

We began with the first step which is defining the problem followed by framing the problem's statement that we came up with overall. During the transition between design thinking phases, our group experienced a shift in focus from problem definition to ideation. It was at this point that collaborative brainstorming sessions took center stage, fostering a dynamic exchange of ideas among team members.

This crucial juncture marked the evolution of our approach as we seamlessly progressed from understanding user needs in the empathizing phase to generating and refining creative solutions. This transition not only signified a pivotal moment in our design thinking process but also set the stage for the subsequent phases of prototyping and testing, ultimately guiding us towards innovative and user-centric solutions.

Our design thinking typically involves several iterative phases, such as empathizing, defining the problem, ideating, prototyping, and testing.

During the transition between these phases, we were shifting our focus, objectives, and activities to progress through the design thinking process. It signifies a dynamic and evolving nature as we move from one specific aspect of problem-solving to the next within the broader framework of design thinking.

## 5.0 DESIGN THINKING EVIDENCE

### 5a The Sample Work

#### Empathy stage



Figure 5.1 Interview session with users to identify problems regarding cloud computing



## Define stage

# TIS O6 Brainstorming (Chapter 8 : Cloud Computing)

• INTAN SERINA BINTI ANUAR MUS [A23CS0085]  
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Group 9

## Chapter 8

- 1 Define a clear topic, then set a timer for 10 minutes to start the brainstorm. Copy and paste the provided sticky notes then type in your ideas. Add as many as you wish!
- 2 After the allotted time, swap boards with the other team. Go through their board, then quietly move ideas that aren't feasible to the cutting room area.
- 3 Have one teammate switch to the other group. Randomly pick a group number between 1-8. Scroll down to find the disrupt card that matches, then drag it to the board. Begin a new 10-minute brainstorm session. This time, factor the disrupt card into the original topic.
- 4 Once again, swap boards, then silently go through the other team's "disrupted" ideas and remove the unfeasible ones.
- 5 Do another 10-minute round of brainstorming with another team member switch and a new disrupt card.
- 6 For the final cut, pick only the best ideas that you're ready to commit to, even if it means only 1 or 2 are left.

Your paragraph text

### PROBLEM :

High Dependence of Cloud Computing on Network.

Lack of sufficient internet bandwidth is a common problem when transferring large sizes of informations to and from Cloud data servers.

### SOLUTION :

Implement data compression techniques to reduce the size of data being transferred over the network. This can help optimize bandwidth usage in cloud environments and speed up data transfer.

**Problem :** Clients who are new or unfamiliar with cloud computing might hesitate to deploy cloud computing due to uncertainty and lack of information.

**Solution:** develop a software application that assess users' readiness, provide cost estimation, offers risk analysis, and guides them with educational resources for a seamless transition to cloud. For example, we can introduce the suitable cloud deployment models to specific clients

**Problem:** Inconsistent / bad performance of the cloud-based application /service.

Users experience inconsistent performance, slow response times and buffering which will frustrate them and damage the company's or brand's reputation as well as user's trust.

**Solution :** Implement dynamic scalability, which automatically adjust the resource allocation based on real time demand. This can ensures sufficient resources are available during peak period, smooth performance and usage, which will enhance users satisfaction.

## Cutting Room

Disrupt Ideas Here

### Security Concerns:

#### Problem:

There are concerns about the security of sensitive data stored in the cloud. Users worry about unauthorized access, data breaches, and the potential for data loss.

#### solution:

- Implement strong encryption mechanisms. Use encryption protocols like HTTPS
- Regularly back up critical data, and test the restoration process to ensure data integrity

**Problem:** Most cloud services require payment for the resources and services they provide. If the payment has not been made, the cloud service provider may restrict the ability and start deleting older files.

**Solution:** Develop a cloud service that can allocate temporary storage to users, so that the files won't be deleted for a specified period of time.

Figure 5.2 Brainstorm the ideas (problems and possible solutions)

## Ideate stage

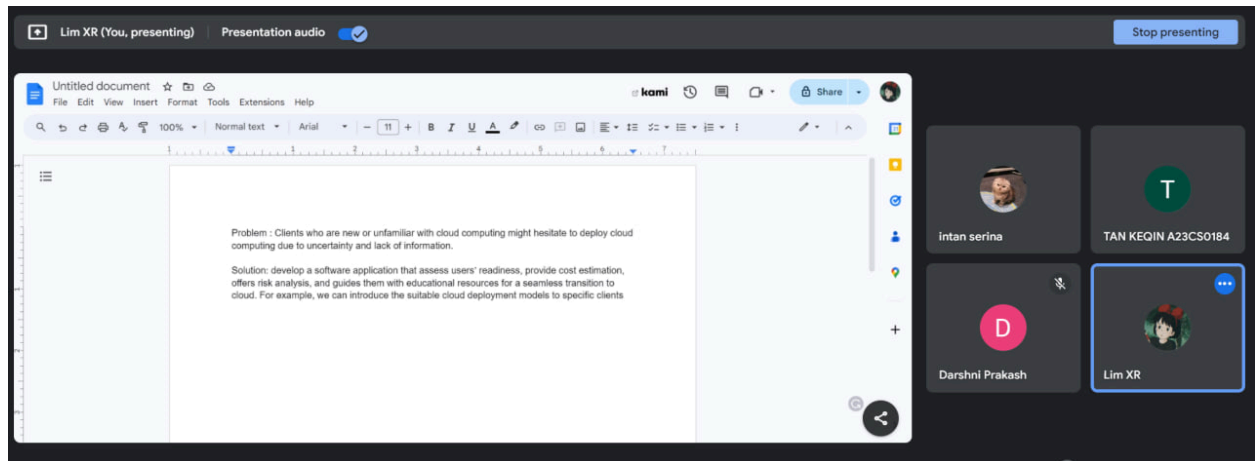


Figure 5.3 Discussion of the chosen solution

## Prototype stage

### Clouding

To introduce the suitable cloud deployment models to clients.

xinroulim2004@gmail.com [Switch account](#)

Not shared

\* Indicates required question

Do you own a company? \*

☐ Yes

☐ No

Satisfaction level of your business's current operation \*

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

What system is your business currently employing? \*

☐ Hybrid

☐ Cloud

☐ On-premises

☐ None

What factors are driving your consideration for transitioning to the cloud? (Select all that apply)

☐ Cloud storage

☐ Cost savings

☐ Scalability and flexibility

☐ Improved collaboration and communication

☐ Enhanced security measures

☐ Accessibility and remote work capabilities

☐ Better performance and efficiency

☐ Regulatory compliance

☐ Other: \_\_\_\_\_

How would you prefer to manage your cloud expenses?

☐ Pay-as-you-go (flexible usage-based pricing)

☐ Reserved instances (fixed-term commitment for cost savings)

☐ Customized pricing based on specific needs

☐ Not sure

How would you describe your team's current level of expertise with cloud technologies?

☐ Novice

☐ Intermediate

Figure 5.4 Prototype using Google form (most similar to real product)

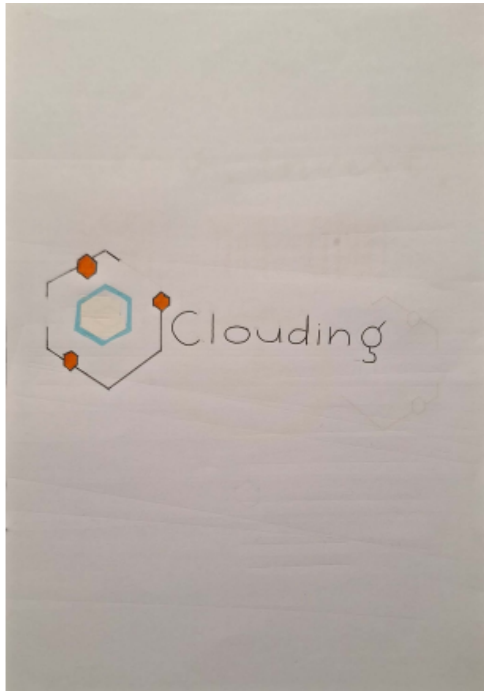


Figure 5.5 User Interface of Application

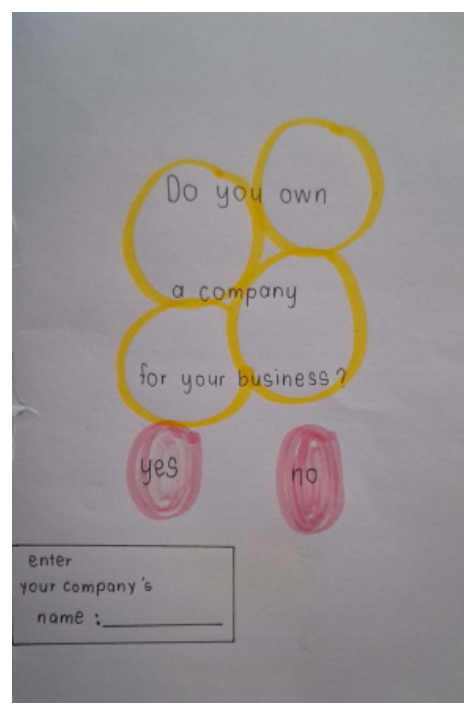
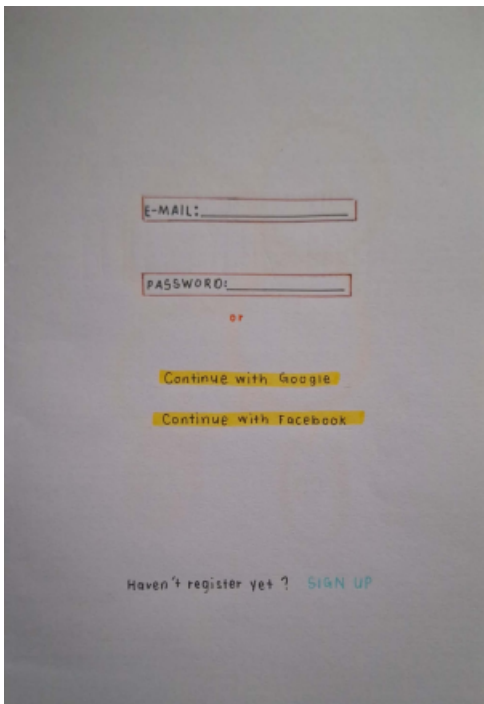


Figure 5.6 User Interface of login page

Answer a few  
questions  
with us to help  
deploy your cloud

Choose your satisfaction  
level of your business's  
current operation.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

What system  
is your business  
currently employing?

☐ hybrid

☐ on-premises

☐ cloud

☐ none

How would you prefer  
to manage  
your cloud expenses?

☐ Pay as you go  
(flexible usage-based pricing)

☐ Reserved instances  
(fixed term commitment for cost saving)

☐ Customized pricing based on specific  
needs

☐ Not sure

Figure 5.7 User Interface of Questionnaire

What factors are driving your consideration for transitioning to the cloud?  
Choose any that applies.

- ☐ Cloud storage
- ☐ Cost savings
- ☐ Scalability and flexibility
- ☐ Improve collaboration and communication
- ☐ Enhanced security measures
- ☐ Accessibility and remote work capabilities
- ☐ Better performance and efficiency
- ☐ Regulatory compliance
- ☐ Others: \_\_\_\_\_

How would you describe your team's current level of expertise with cloud technologies?

- ☐ Novice
- ☐ Intermediate
- ☐ Advanced

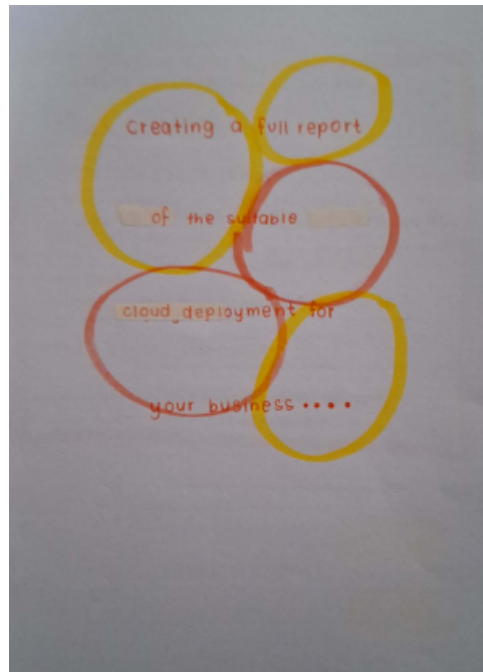
next

How do you envision allocating a budget for a transition to the cloud?  
(Select the most applicable option)

- ☐ Fixed annual budget allocation for IT
- ☐ Project-based budgeting for specific IT initiatives
- ☐ Reactive budgeting based on immediate needs.
- ☐ Flexible budgeting

next

Figure 5.8 User Interface of Questionnaire



COMPANY'S NAME : -

CURRENT SYSTEM : None

SATISFACTION LEVEL : 3 out of 5

DRIVING FACTORS FOR  
CLOUD CONSIDERATION :

1. Cost saving
2. Scalability and flexibility
3. Improved performance and efficiency

CLOUD EXPENSE  
MANAGEMENT PREFERENCE : Pay as you go  
(flexible usage-based pricing)

CLOUD EXPERTISE : Intermediate

BUDGETING APPROACH : Project based for specific IT initiative.

PROCEED

BACK

FULL REPORT

**SUITABLE CLOUD PLATFORM**

- Amazon Web Services (AWS)
- Microsoft Azure
- Google Cloud Platform (GCP)

[Learn more...](#)

**BUDGET AND PRICE ESTIMATION**

Can range from RM100,000 to RM500,000 annually

**SHOULD YOU DEPLOY TO THE CLOUD**

Yes

**SUITABLE CLOUD METHOD**

Platform as a Service (PaaS)

[Learn more...](#)

**GUIDES**

- Select a platform aligned with specific needs
- Evaluate vendor flexibility
- Continuously monitor and optimize

[Learn more...](#)

**RISK**

- Vendor lock-in
- Limited control
- Integration challenges

[Learn more...](#)

Save as file

Back to home page

Figure 5.9 User Interface of report (example 1)



COMPANY'S NAME : -

CURRENT SYSTEM : None

SATISFACTION LEVEL : 3 out of 5

DRIVING FACTORS FOR  
CLOUD CONSIDERATION : 1. Cloud storage  
2. Scalability and flexibility  
3. Enhanced security measures

CLOUD EXPENSE MANAGEMENT PREFERENCES : Pay as you go (flexible usage-based pricing)

CLOUD EXPERTISE : Intermediate

BUDGETING APPROACH : Project based budgeting for specific IT initiatives

proceed

back

## FULL REPORT

**WHITABLE CLOUD PLATFORMS**

- Amazon Web Services (AWS)
- Microsoft Azure
- Google cloud Platform (GCP)

[learn more](#)

**BUDGET AND PRICE ESTIMATION**

Can range from RM100000 to RM500000 annually.

**SHOULD YOU DEPLOY THE CLOUD?**

Yes

**WHITABLE CLOUD METHOD**

Platform as a Service (PaaS)

**GUIDES**

- Select a platform aligned with specific needs
- Evaluate vendor flexibility
- Deploy a cloud that ensures data leakage prevention.

[learn more...](#)

**RISK**

- Vendor lock-in
- Cost challenges

[learn more...](#)

save as file (📎)

back to home page

Figure 5.10 User Interface of the report (example 2)

## Test Stage



Figure 5.11 Interview session with users to get feedback regarding the prototype



## **5b Record for each phase**

### Empathy stage

- In this phase, we have interviewed people about problems or any services encountered regarding cloud computing to identify the problem and solutions.

Person 1:

Questions	Answers
Name	Adeline
Age	25
Occupation	Accountant
Are you involved/interested in business?	I'm not involved in business but I'm interested in setting up my own business in the future
Are you familiar with cloud computing?	Not really, but I've heard about it.
Have you ever thought of integrating your business with cloud computing?	Yes, I think cloud computing might be a useful tool in IT infrastructure
How confident do you think that cloud computing can leverage your business' efficiency?	I'm quite confident that cloud computing can significantly improve one's business efficiency. The scalability and flexibility it offers align well with our growing needs, and it can streamline many of our IT processes.
In your point of view, what kind of problem do you think you will encounter when employing cloud computing?	I think that most business owners will struggle with the cost and risk coming along with the new methodology, they might hesitate to switch to the cloud because they might not have adequate educational resources on cloud computing.

Table 5.1 Interview Session 1

Person 2:

Questions	Answers
Name	Lee
Age	25
Occupation	Tutor
Are you involved/interested in business?	No, I am not involved in business, but I have an interest in exploring it in the future.
Are you familiar with cloud computing?	Yes, I am familiar with cloud computing. I read an article that related in that field before. It attracted me a lot and I'm looking forward to exploring it further.
Have you ever thought of integrating your business with cloud computing?	Yes, I have considered integrating my business with cloud computing since there are a lot of potential benefits in cloud computing.
How confident do you think that cloud computing can leverage your business' efficiency?	I believe leveraging cloud technologies could enhance my business's operations and contribute to efficiency improvements. However, a thorough analysis and strategic implementation would be necessary to fully realize these benefits.
In your point of view, what kind of problem do you think you will encounter when employing cloud computing?	In my view, one of the most significant challenges I worried about when employing cloud computing is the risk to data privacy and security. I am concerned about the possibility of data leakage. Since, ensuring the safety of sensitive information is crucial, I will need strong security measures and careful attention in cloud computing to effectively minimize these risks.

Table 5.2 Interview Session

### Define Stage

- In this stage, we have listed out the possible problems faced by users regarding the usage of cloud computing.

Problem	Descriptions
Users are concerned about the possibility of data leakage.	Data leakage can have severe consequences, including financial losses, damage to reputation, and legal implications. Users need assurance that their sensitive data will be securely handled in the cloud. Users require robust measures and assurances that their data will be safeguarded against unauthorized access and breaches.
safety of sensitive information	
analysis and strategic implementation would be necessary	Addressing the concerns regarding data safety involves a comprehensive analysis of potential vulnerabilities and the strategic implementation of security measures within the cloud infrastructure.
Users hesitate to switch to the cloud	Users exhibit reluctance or hesitation to migrate their operations to cloud platforms, possibly due to uncertainties about the benefits, perceived risks, or challenges associated with the transition.
some organizations or users are unfamiliar with cloud computing	Some organizations or users lack familiarity or have limited knowledge about cloud computing, indicating a potential barrier to adopting cloud services.

Table 5.3 Potential problems faced by users

### Ideate stage

Solutions	Description
To address users' concerns and suggest a platform and models that help to concur with the problem faced by users.	By conducting surveys and questionnaires, clouding will identify and suggest suitable models that highlight the specific function that can solve users' problems.
To provide users with enough information on the risks and details of the suitable cloud models	Users will be provided with detailed insights into different cloud deployment models. This includes public, private, and hybrid cloud options, along with their respective advantages and potential drawbacks
To analyze users' readiness towards the transition to the cloud and suggest the best action to be taken by the user	This analysis will consider factors such as current IT capabilities, staff training, and potential challenges. Based on this assessment, Clouding will provide users with customized recommendations and step-by-step guidance to ensure a smooth and successful transition to the cloud
To provide educational resources to users to ensure a smooth transition to cloud	Educational resources will cover fundamental concepts of cloud computing, best practices for security, cost management, and practical tips for effective cloud utilization.
To remind or notify users of any suitable cloud service updates so that they can employ	This is to keep the users up to date with the current trends and help them to leverage their cloud services experiences.

Table 5.4 Recommended Solutions

## Prototype

Google form: <https://forms.gle/mPGVyWn3j28vX1Q99>

We have used two options for developing our prototype, first of all, we have used google Forms to imitate the survey form of our application, and we have also sketched on paper to illustrate the pattern and design of our application.

Below are the details of the flow of the application:

### Section 1: Login page

- On this page, we will ask users to log in if they are an existing company, and for a new company, we will ask users to register. If it is an existing company, users will need to enter their company name and our system will fetch the information from the internet regarding the details and characteristics of the company.
- Questions:  
Existing company / New company?

### Section 2: Questionnaire

- On this page, we will ask users questions, to survey their readiness and inclination towards transition to the cloud.
- The questions are designed to assess the need for transition to the cloud, to recognize the company's current system, to assess users' preferences, to assess the user's budget, So that we can suggest the corresponding platform that offers the requirements of users

### Section 3: Report

- On this page, we will display the report based on their company details and preferences.
- Suitable platform + price
- Whether they should employ cloud, which model and method (IaaS/PaaS/SaaS)
- Risk
- Guides

### Test Stage

- After we have completed the prototype, we have shown it to our users to get their feedback for future improvements

#### **Opinion/Feedback (Person 1):**

Are you satisfied with our service? Do you think our service helps you a lot in your business?

- Yes, I'm really happy with your service. The Clouding service has been super helpful for my business. The Clouding service has proven invaluable for my business, offering a cost-effective solution that aligns perfectly with my requirements. It gives me what I need without breaking the bank. The suggestion to use Platform as a Service (PaaS) was smart and has made my work a lot smoother.

What are the improvements you think can be added to our service?

- I believe there's an opportunity to enhance the service by introducing personalized one-to-one customer support. This would allow customers to express their concerns more easily and feel more engaged. Providing a direct channel for communication could lead to better understanding and satisfaction among users.

#### **Opinion/Feedback (Person 2):**

Are you satisfied with our service? Do you think our service helps you a lot in your business?

- Yes, I am delighted with the service provided by Clouding. Their guidance led me to choose a cloud platform that effectively addresses my concerns about data privacy and security. The recommended platform ensures data leakage prevention, adding an extra layer of assurance to my business operations. Overall, Clouding has significantly contributed to the success and security of my business.

What are the improvements you think can be added to our service?

- Yes, I think Clouding can provide more helpful information on transitioning to the cloud, including practical tips and real-life examples. It would make the Clouding service easier to use and regularly updating it to match the latest trends in cloud technology would also make the overall experience better for the users.

## 6.0 REFLECTION

### 1) Abid Humayraa

- a) I want to always ensure ethical and responsible development. With any powerful technology, comes the responsibility of using it ethically and responsibly. I hope to be a part of the conversation that shapes the future of technology, ensuring that it is used for the benefit of humanity and the planet.
- b) To create a cloud-based educational platform, it's crucial to use design thinking. This involves deeply understanding the needs of students making different prototypes for a diverse learning experience, and refining the platform based on valuable user feedback. When designing a secure and scalable cloud infrastructure, using design thinking helps address users' and stakeholders' security and privacy concerns. This results in a strong and user-friendly cloud architecture.
- c) My goal is to drive innovation leadership and operational efficiency. To achieve this, I recognize the importance of establishing technology partnerships, cultivating strong customer relationships, and introducing unique product offerings. While acknowledging that I may lack some technical skills as a beginner, I am committed to continuous self-improvement to strengthen these areas. In terms of planning, I intend to strategize both Mid-term initiatives and Long-term initiatives personally.

I focus on mid-term initiatives that demand extensive planning and resources but promise substantial long-term benefits. These initiatives may encompass launching new product lines, entering different market segments, investing in research and development, or forming strategic partnerships with technology experts.

On the other hand, long-term initiatives involve setting ambitious goals that demand sustained effort and unwavering commitment. This might include the development of disruptive technologies, the creation of innovative business models, or the transformation of organizational culture.

## 2) Darshni

- a) By completing this course which is the Technology and Information System course, I can say that a lot of achievements and benefits can be done and learnt. For instance, from this course, I had developed a solid foundation in technical skills related to system analysis, cloud computing, networking and database administration. Moreover, I have developed an attitude of perpetual learning to keep abreast of new developments in technology and market trends. I have adapted to a quickly evolving technological environment, guaranteeing progress and relevance in the workplace.
- b) Design thinking promotes original and creative approaches to problem-solving. This way of thinking has helped me to come up with new and creative ways to solve challenging problems in information systems and technology. Additionally, it has also encouraged teamwork across disciplines and collaboration. I have a collaborative approach which improved my capacity to collaborate with people who have different backgrounds and viewpoints in order to form diverse teams.
- c) In my opinion, I would make a commitment to lifelong learning and remaining current with industry trends, new technology, and best practices. To broaden my knowledge and abilities, I will sign up for webinars, workshops, and online courses. Moreover, to obtain real-world work experience, I will look for internships or entry-level jobs. I would also put my academic understanding into practice, expand my professional contacts, and add practical experience to my resume. Lastly, I would participate in open-source projects to work with other developers and become more visible in the community. To improve my action, I would establish a reputation for my contributions, work with seasoned developers, and demonstrate my coding skills.

## 3) Tan Kegin

- a) My goal in the Technology and Information System course is to get the related knowledge on technologies and innovative solutions to address real-world challenges. I am looking forward to deepening my knowledge and enhancing my understanding on this subject. I am eager to acquire valuable insights that will not only contribute to my



personal and professional growth but also position me to make a meaningful impact in this field. Besides, I hope this design thinking project will help people who are involved in business get their suitable cloud platform in order to get huge benefits.

- b) The design thinking project has had an impact on both my knowledge and my approach to action in this program. Engaging in this project allowed me to learn not only from my successes but also from the mistakes I made along the way. It leads to significant improvements in my skills and understanding. One crucial lesson I gained from this project is the importance of having clear planning and effective teamwork among group members. I found that a well-thought-out plan is essential for the success of any project. Overall, the design thinking project has not only enriched my knowledge but has also instilled in me the importance of adaptability and continuous improvement.
- c) To enhance my potential in this ICT related industry, I am committed to being a proactive self-learner. I plan to regularly enroll in additional courses, conduct independent research, and actively seek out opportunities for skill development. For example, I will take more courses that are in the IT field so that I will get new skills and experience. Besides, I will be working on more projects that will give me more hands-on experience. Overall, I need to keep pace with the evolving technology trends and also developing new skills and staying at the forefront of innovation.

#### 4) Lim Xin Rou

- a) First of all, my goal in pursuing the Technology and Information Systems course is to be exposed to more knowledge regarding the system and understand the basics of computers. I think Technology and Information systems is an indispensable knowledge that needs to be acquired by everybody as IT has become a trend in this era. My goal is to acquire as much knowledge as I can and to implement it by engaging in as many projects as I can. Also, I hope that one day I can become a programmer with strong foundational knowledge and be a person who can address and solve real-life problems.
- b) Besides that, I think that this design thinking project has sparked my creativity and passion for systems or software development. This project has provided me with an

opportunity to implement my ideas and boosted my confidence. All in all, this project has also given me insights that cooperating with people and engaging with different ideas are very interesting and can bring better results. As the saying goes, no man is an island. I've realized the importance of communication when dealing with problems or difficulties. Hence, this project has also allowed me to express my ideas and concerns to other people to make things work effectively.

- c) I think the implementation is crucial in growth no matter in which industry. Hence, I think I will improve my knowledge and skills through a bunch of reading and activities. I've also planned to join a variety of activities or projects that can expose me to new experiences and also as a platform to bring my funky ideas to reality. Also, if I have the opportunity, I would like to join more industry visits or talk as I found that these activities gave me interesting insights.

#### 5) Intan Serina

- a) In regard to Technology and Information Systems, my goal is to establish a lifelong learning habit in this field, staying updated to the latest trends because the IT field is always changing and elevating. Therefore, to achieve that, I will try my best to deepen my knowledge and stay enthusiastic in learning new things by involving myself in a lot of projects. These can let me leverage my knowledge to develop a solution for local social issues in this world.
- b) In my opinion, this design thinking project has helped to think outside the box and awakening my creativity in order to solve real-life problems. This project also allows and requires me to do a deeper thinking and planning of the solutions step-by-step as well as having effective communications between the group members. Generally speaking, this project has broadened my intellectual horizons in this course and exposed me to continuous learning and improvement in order to get the best solutions.
- c) I believe that staying consistent in this industry is quite important in order for me to improve my potential. It is well known that this industry is rapidly changing everyday as time goes by. Therefore, continuous learning will always be my significant way because

it is crucial to stay relevant and get provided with up-to-date solutions. I will also enrich my knowledge in this field by gaining experiences from projects, attending seminars and doing self-learning as much as I can to gain more skills, as well as improving myself from the constructive feedback I receive from other people in this field.

## 7.0 TASK OF EACH MEMBER

Name:	Tasks
Tan Kegin	<ul style="list-style-type: none"><li>• Interview session</li><li>• Editing videos</li><li>• Reflections</li></ul>
Lim Xin Rou	<ul style="list-style-type: none"><li>• Design thinking evidence</li><li>• Reflections</li></ul>
Darshni	<ul style="list-style-type: none"><li>• Report (Introduction &amp; Detail steps and descriptions in design thinking and evidence for each phase)</li><li>• Reflections</li></ul>
Intan	<ul style="list-style-type: none"><li>• Designing the prototypes</li><li>• Reflections</li></ul>
Humayraa	<ul style="list-style-type: none"><li>• Detailed descriptions include problem, solution and team working</li><li>• Design thinking assessment points, when should assessment happen</li><li>• Reflections</li></ul>

### Youtube Link:

[https://youtu.be/NGviM\\_1TbaE?si=nO\\_xfNje7NoN8kC](https://youtu.be/NGviM_1TbaE?si=nO_xfNje7NoN8kC)