

SYSTEM ANALYSIS AND DESIGN

SECP1013-08
TECHNOLOGY & INFORMATION
SYSTEM

INNOVATION
SOLUTION
BRANDING
IDEAS
MARKETING
SUCCESS
MANAGEMENT
ANALYSIS



UTM
UNIVERSITI TEKNOLOGI MALAYSIA



DESIGN THINKING

SYSTEM ANALYSIS & DESIGN

SYSTEM ANALYSTS & DESIGNER

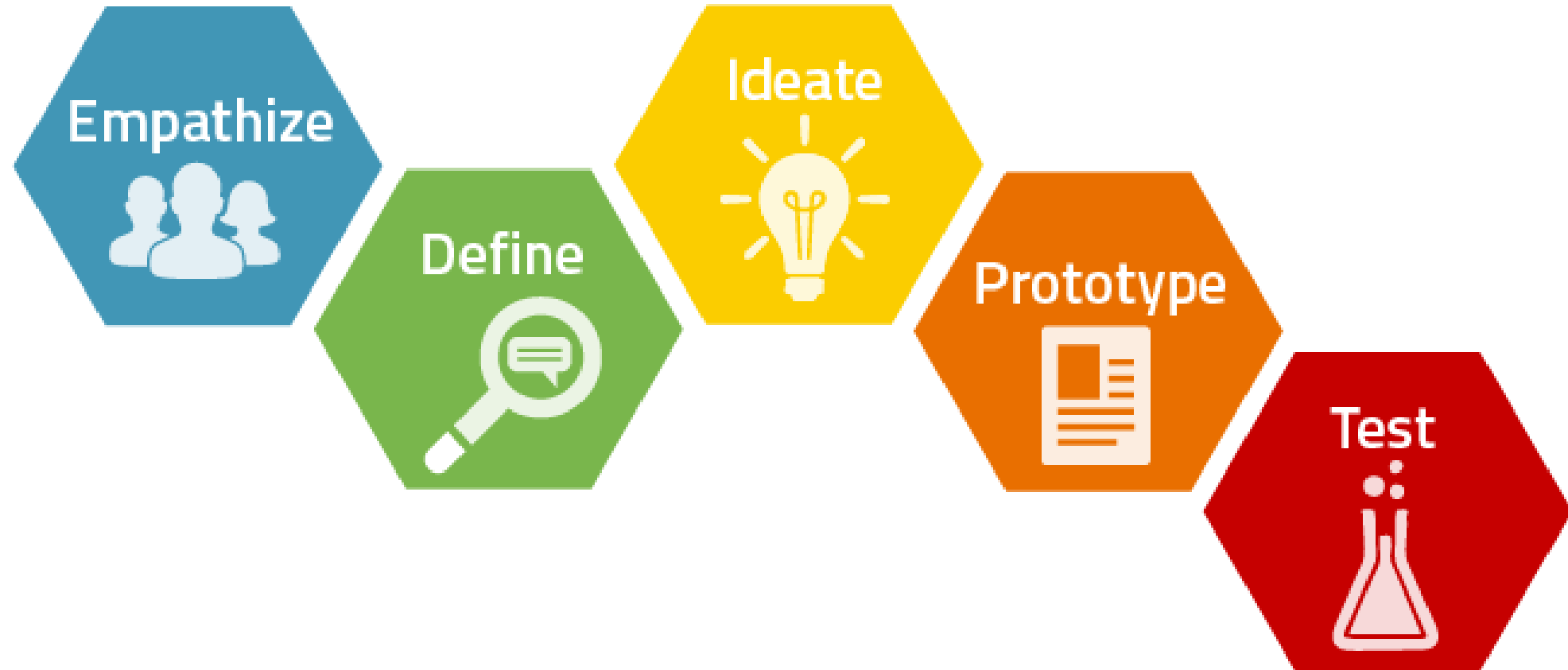
- AZ MUKHLIS ISKANDAR BIN AZLI
- MUHAMMAD ISKANDAR ZULQARNAIN BIN MOHD ISHAK
- NUR NABILAH BINTIYUSMAN

WHAT IS DESIGN THINKING ?

- Design Thinking is a **thinking methodology** by design that uses a **step-by-step approach** into solving problems in a user-centric way. It is especially efficient in order to get to the root of **complex problems** that are unclear and unidentified.



DESIGN THINKING



PROBLEM STATEMENT & SOLUTION

PROBLEM

What system can be created to help the seller to calculate more accurate and faster?

SOLUTION

Creating a C++ Programming Language - based program to perform the calculations

TEAM WORK

Distributing parts of task to be completed

PHASE 1 : EMPATHISE

Empathy is the involvement of **considerate** another person's thoughts, moods, and condition **from his or her point of view**, rather than from one's own. In Design Thinking, we interviewed the person to gain information.



PHASE 1 : EMPATHISE

Name

Puan Rohana

Age

54 years old

Background

A business woman who own a shop and managing all the finance and affairs of the works



PHASE 2 : DEFINE

We analyze in detail, interpret the outline info from empathize step and then define clients need. In this stage, we force all the **information** we have gathered in the first stage and organizes, interprets and **makes sense of it.**



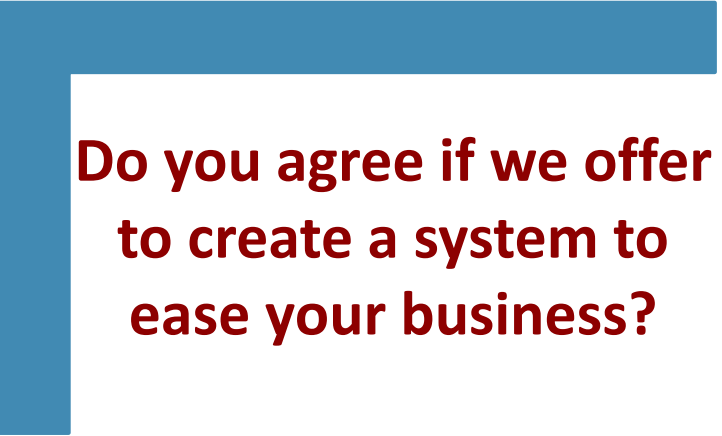
PHASE 2 : DEFINE



What difficulties that you ever experienced?



Is there anything you know about System Analysis & Design?



Do you agree if we offer to create a system to ease your business?

PHASE 3 : IDEATE

- Imagine you are a research **ponder**, to create a vision creatively and brainstorming. Ideate refer to **group discussions** to come up with ideas and **ways to solve problems**.



PHASE 4 : PROTOTYPE

Prototypes are built so that designers can think about their solutions in a different way, as well as to fail quickly and cheaply exploring multiple iterations of designs, so that less time and money is invested in an idea that turns out to be a bad one.




```
=====++++++=====
RESTAURANT ORDER SYSTEM
=====++++++=====
```

```
~~Welcome to AIN.Co Restaurant~~
```

```
*****
1. Current User Mode
2. Guest Mode
3. Gross Profit(Admin Only)
```

- ```

Enter your option:
```

---WELCOME TO OUR RESTAURANT!---

```
What do you want to order?
1 Food
2 Drink
3 Dessert
4 Set
Your choice:
```

- Your choice:

| Food<br>Number | Food<br>Name  | Item<br>Price(RM) |
|----------------|---------------|-------------------|
| 1              | Chicken Chop  | 12.30             |
| 2              | Burger        | 10.50             |
| 3              | Cheesy Wedges | 5.75              |
| 4              | Fried Chicken | 4.20              |
| 5              | French Fries  | 3.95              |

Your choice (press 0 to cancel):

Generating your receipt...

```

 Bill

AIN.CO VAR. CUISINE RESTAURANT
PARAMOUNTDIGM MALL, NEW JAUHAR
1SECR (M) Sdn. Bhd. (15011-U)
Level 85, No 176, Jaya Sprint Street,
90432, JAUHAR, SOUTH DIAMOND
Tel: 07-8752916
www.ain.com

Sat Oct 12 08:36:47 2019
```

| Product          | Qty | Price(RM) |
|------------------|-----|-----------|
| Chicken Chop     | 1   | RM12.30   |
| Fried Chicken    | 2   | RM8.40    |
| Fries            | 10  | RM39.50   |
| Iced Coffee      | 12  | RM62.40   |
| Chocolate Cake   | 3   | RM9.60    |
| Durian Ice Cream | 5   | RM13.75   |
| Total Price      |     | RM145.95  |
| Paid:            |     | RM150     |
| Changes          |     | RM4.05    |

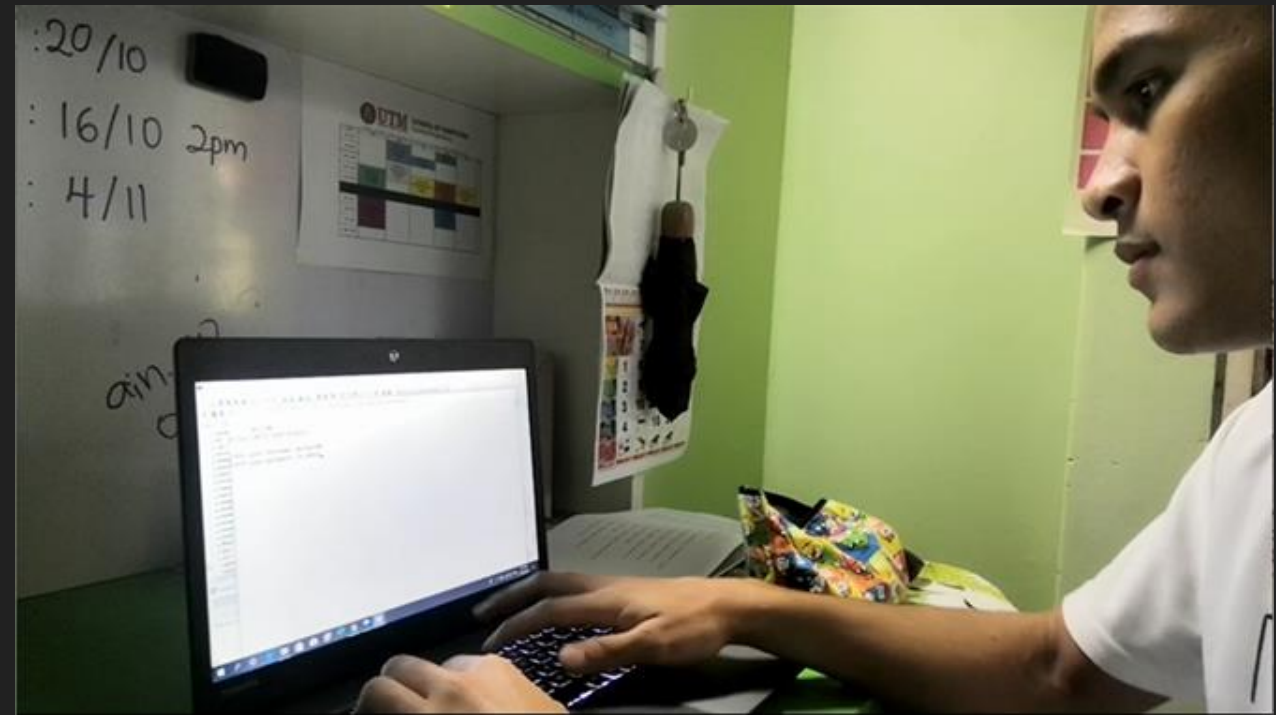
```
YOUR ORDER HAS BEEN PLACED.
YOUR TURN NUMBER CODE IS 0001
PLEASE PICK UP YOUR FOOD AT COUNTER WHEN IT'S YOUR TURN.
THANK YOU!

Press any keys to finish...
```

```
Press any keys to finish...
```

# PHASE 5 : TEST

The process of testing your prototype on real users. During the phase of testing, you will see how your target users interact with your prototype and gather valuable feedback.



# Assessments

| Phase     | Assessments                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------|
| Empathise | We managed to plan an interview with our client and analyse what is her problem.                       |
| Define    |                                                                                                        |
| Define    | Once the problem was inspected, we come out with solutions and ideas to solve it.                      |
| Ideate    |                                                                                                        |
| Ideate    | Creative thoughts lead to a better starter on creating prototype and we learn how the prototype works. |
| Prototype |                                                                                                        |
| Prototype | Finalizing the project and do the act of finding end user to test the prototype.                       |
| Test      |                                                                                                        |

Overall, at the end of project we perceived that design thinking process gave us the biggest influence on the way we document a project form beginning until the end. This is due to a systematic way on defining the problems until the problems were solved.