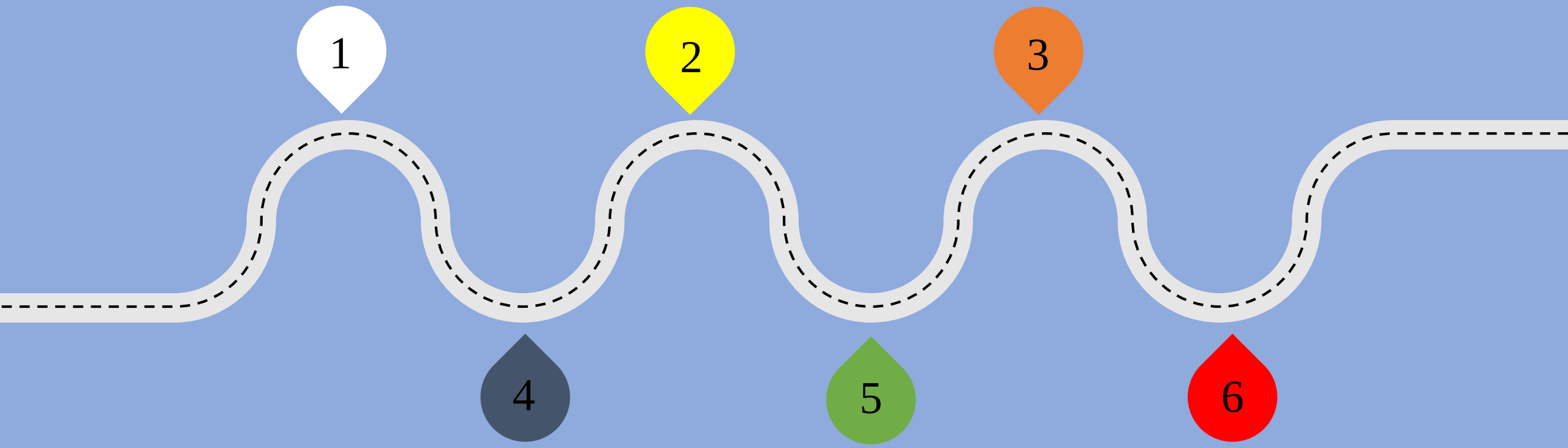
Unit 3

Logic Modeling

Components

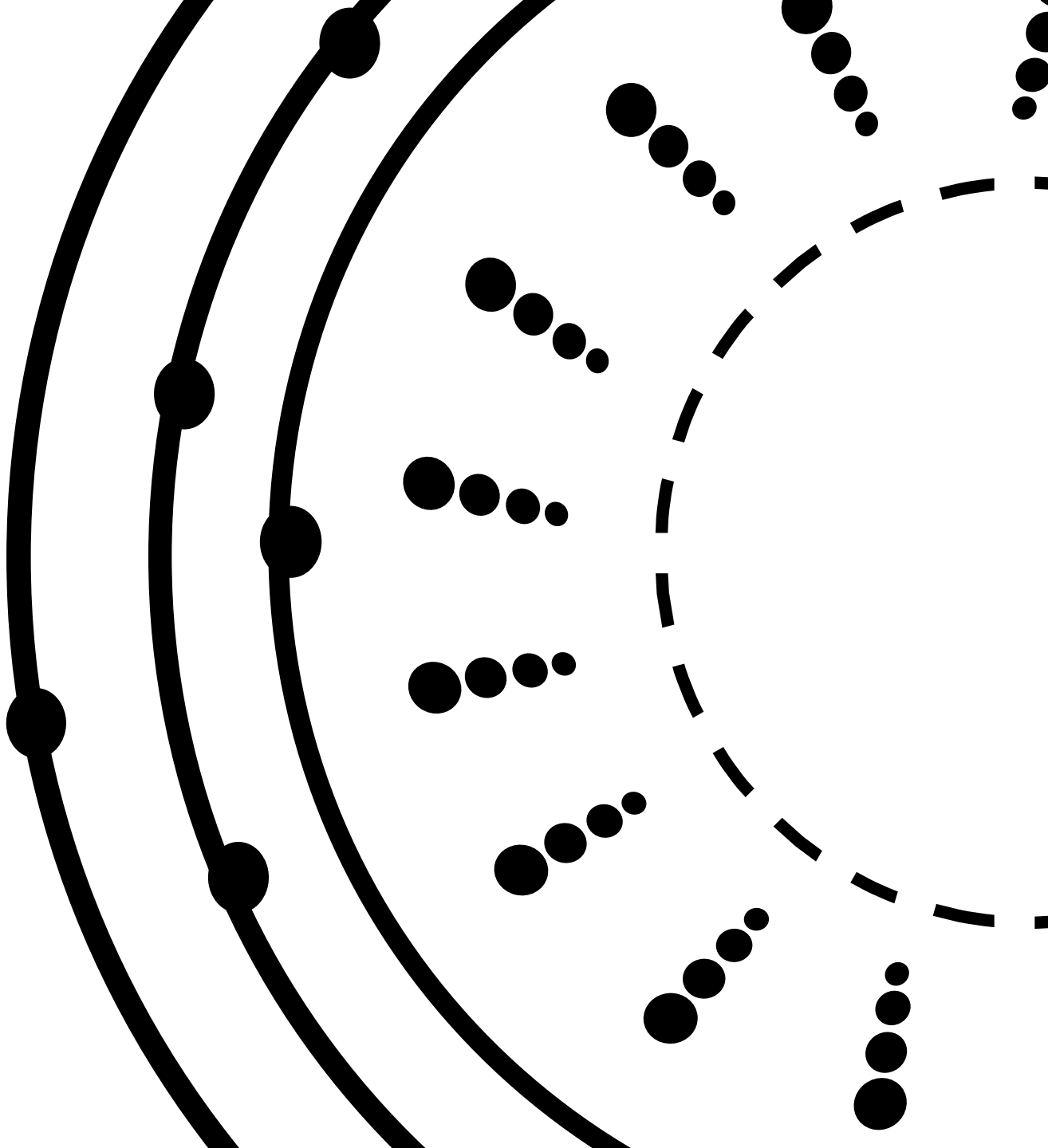
- Needs
- Inputs
- Activities
- Outcomes

Developing a logic model helps us to



1. Design programs and initiatives
2. Identify external factors
3. Identify key process
4. Identify and express assumptions
5. Identify possible ways
6. Identify key results

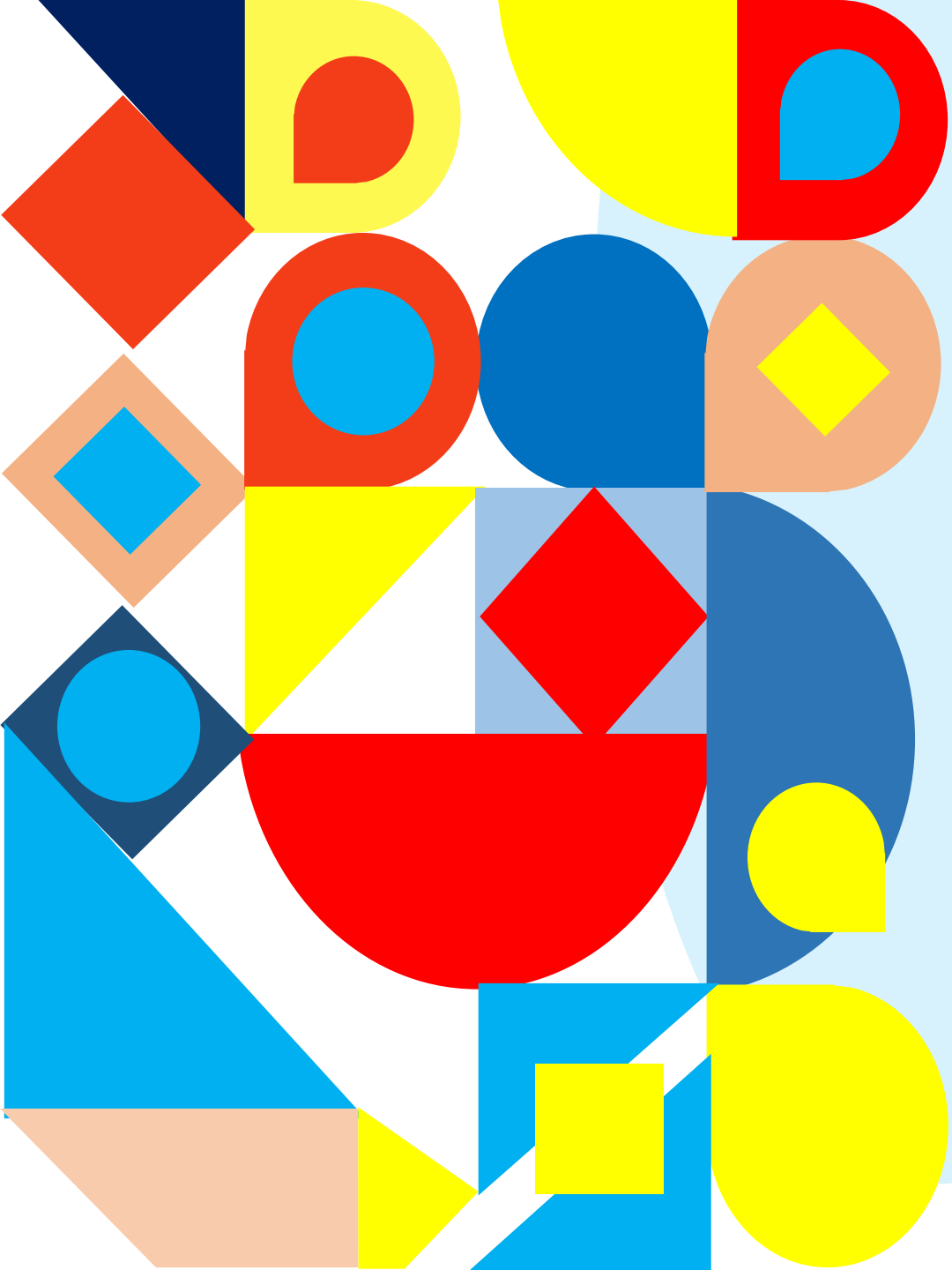
Decision



Decision Table

- A decision table is a scheduled rule logic entry

- A decision table is a tabular representation of the logic of a decision



❖ Parts in the decision table

- **Condition: Contains various condition that applies in the situation.**
- **Rules: Contains the set of rules.**
- **Action: Contains various actions for the required result.**

Q. A Company sells merchandise to wholesale and retail outlets. Wholesale customers receive a two percent discount on all orders. The company also encourages both wholesale and retail customers to pay cash on delivery by offering a two percent discount for this method of payment. Another two percent discount is given on orders of 50 or more units. Each column represents a certain type of order.

Process Name		Rules							
Condition	Less than 50 units ordered	Y	Y	Y	Y	N	N	N	N
	Cash on Delivery	Y	Y	N	N	Y	Y	N	N
	Wholesale Outlet	Y	N	Y	N	Y	N	Y	N
Actions	Discount Rate 0%				X				
	Discount Rate 2%		X	X					X
	Discount Rate 4%	X					X	X	
	Discount Rate 6%					X			

Table1: Decision Table

Decision Tree

Condition:

1. If the customer is registered and buys goods worth 10k+ then provide 20% discount.
2. If the customer is registered and buys goods less than 10k then provide 10% discount.
3. If customer is not registered and buys goods more than 10k then provide 5% discount.
4. If customer is not registered and buys goods less than 10k then no discount or 0% discount.

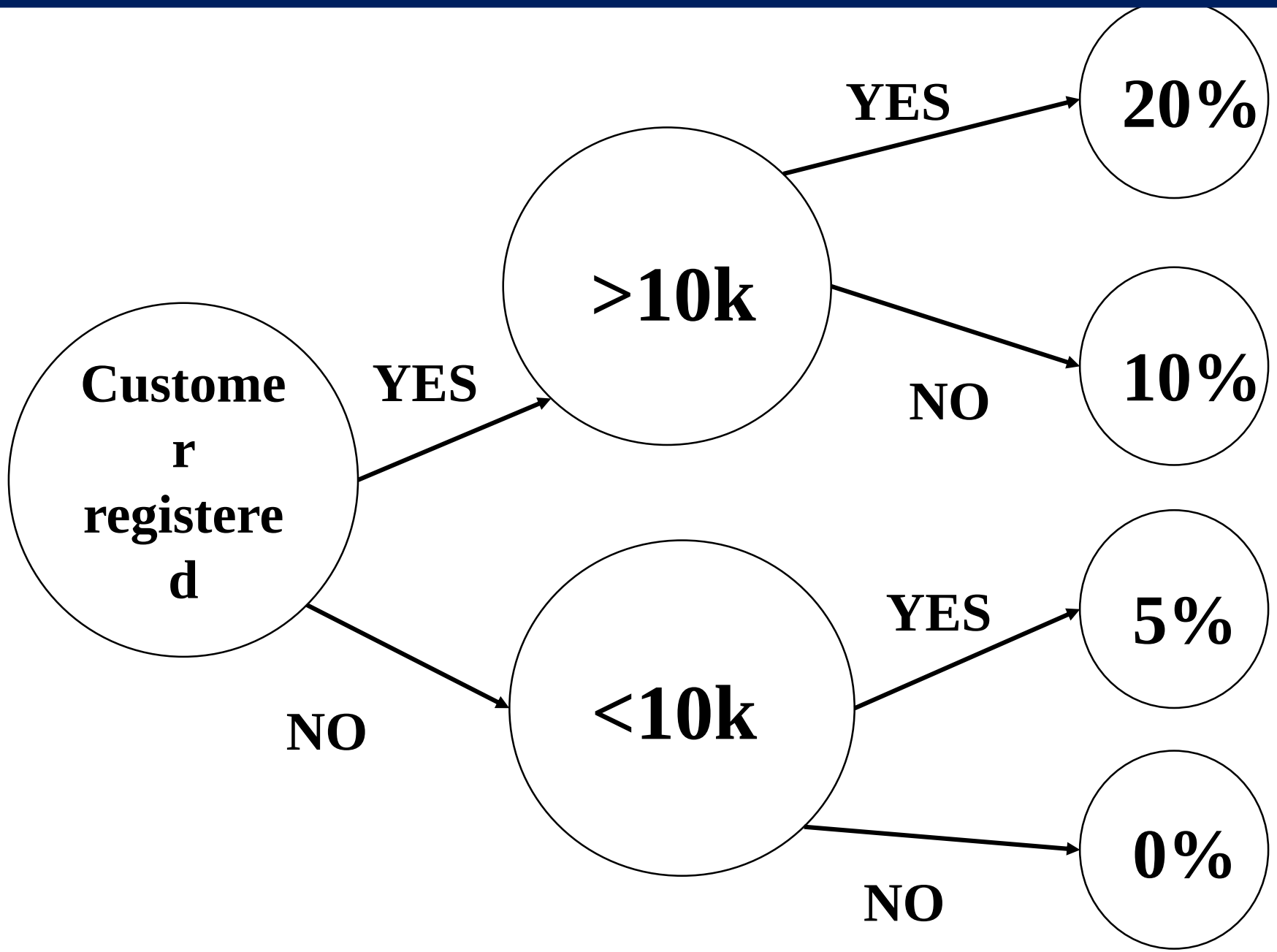
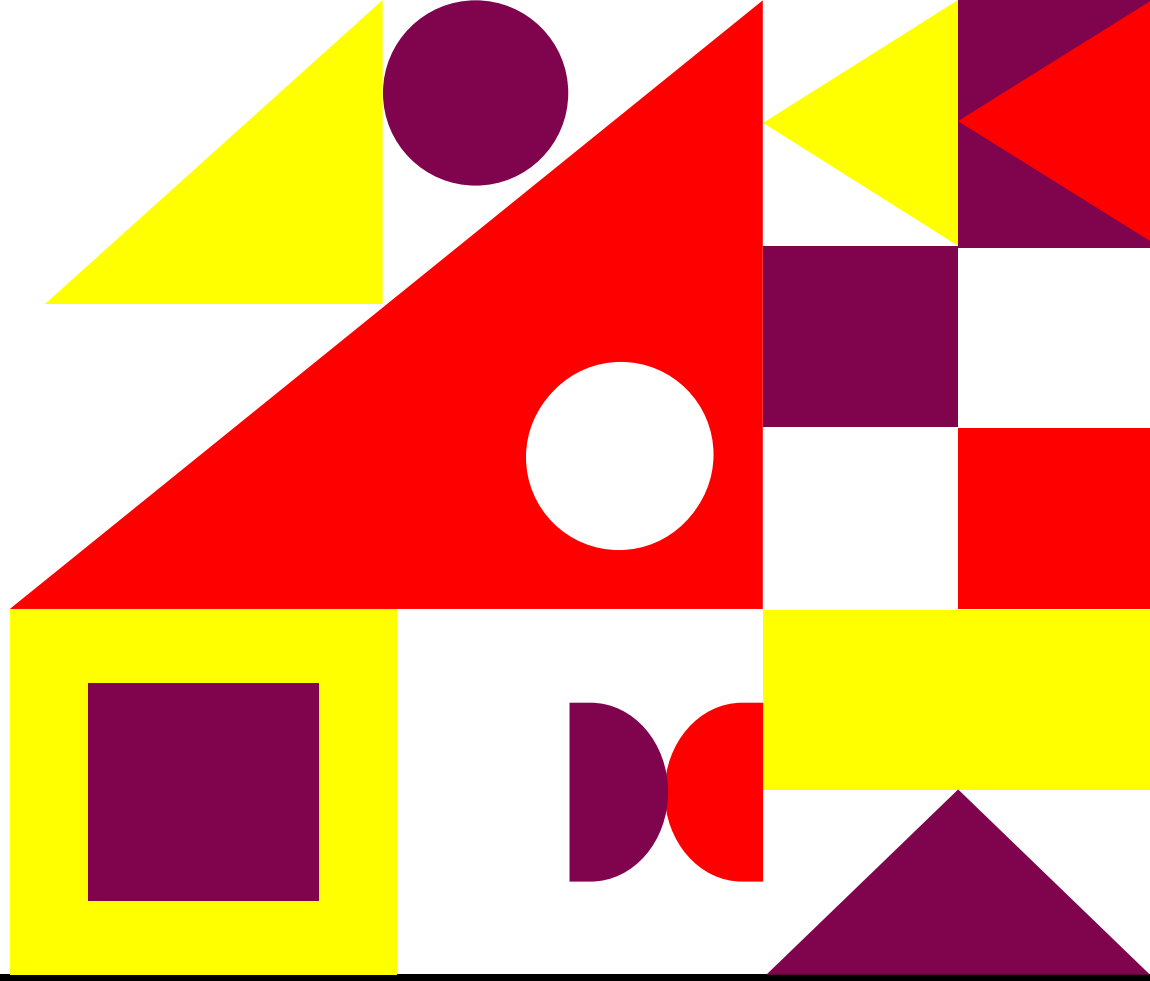


Fig1: Decision Tree

Structured

English

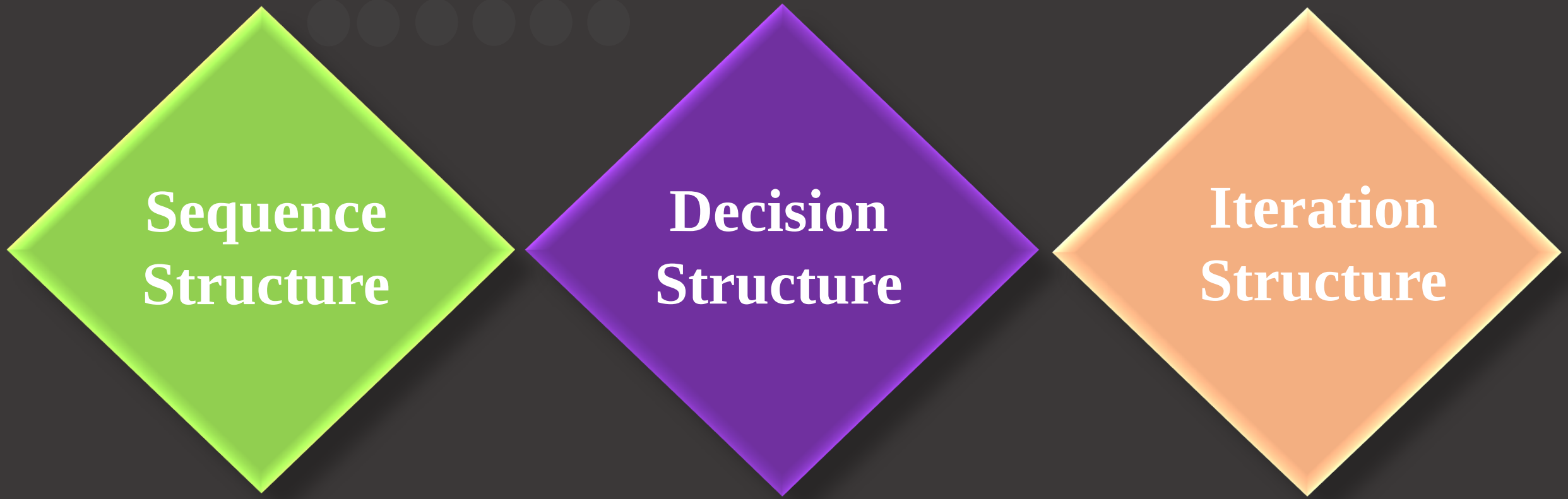


Structured English is the use of the English language with the syntax of structured programming to communicate the design of a computer program to non – technical users by breaking it down into logical steps using straight forward English words.

Structured English

- Syntax
- Programming logic and natural language
- Each step is described
- It states rules

How to develop a structured statements ?



Elements

- Operation statements written as English phrases executed from top to down.
- Conditional blocks indicated by keywords such as **IF, THEN, ELSE.**
- Repetition blocks are indicated by keywords such as **DO, WHILE, UNTIL.**

Points to remember while writing Structured English

- Statements should be clear and unambiguous.
- Statements should be written using sequential structure, decision structure, iteration structure.
- Keywords should be capitalized.
- Use one line per logical element
- Underline phrases or words that has been defined in data dictionary

Advantages

- Clarifying the logic and relationship found in human languages
- An effective communication tool, and easy to teach and understand.

IF

Customer pays advance

THEN

Give 5% Discount

ELSE IF

Purchase amount >= 10,000

THEN

IF

The customer is regular customer

Fig2: Structured English 1

THEN

Give 5% Discount

ELSE

NO Discount

END IF

ELSE

NO Discount

END IF

END IF

Fig3: Structured English 2

Data Dictionary

What is Data Dictionary?

- **Data Dictionary is a collection of data to be captured and stored in the system.**

- **A data dictionary contains metadata i.e. data about the database.**

Example

Client_id	Client_name	Password	Contact no	Email
1	Ram	12345	111 111 111	ram@email.com
2	Hari	Abcde	222 222 222	hari@email.com
3	Raju	53421	333 333 333	raju@email.com
4	Mohan	23234	444 444 444	mohan@email.com

Table2: Data Table

Example

Field Name	Data type	Fiield Length	Constrains	Description
Client_id	Number	10	Primary key	Client id ,Auto generated
Client_name	Varchar	20	Not null	Name of client
Password	Varchar	30	Not null	Login Password
Contact no	Number	10	Not null	Contact of client
Email	varchar	40	Not null	Client email

Table4: Data Table

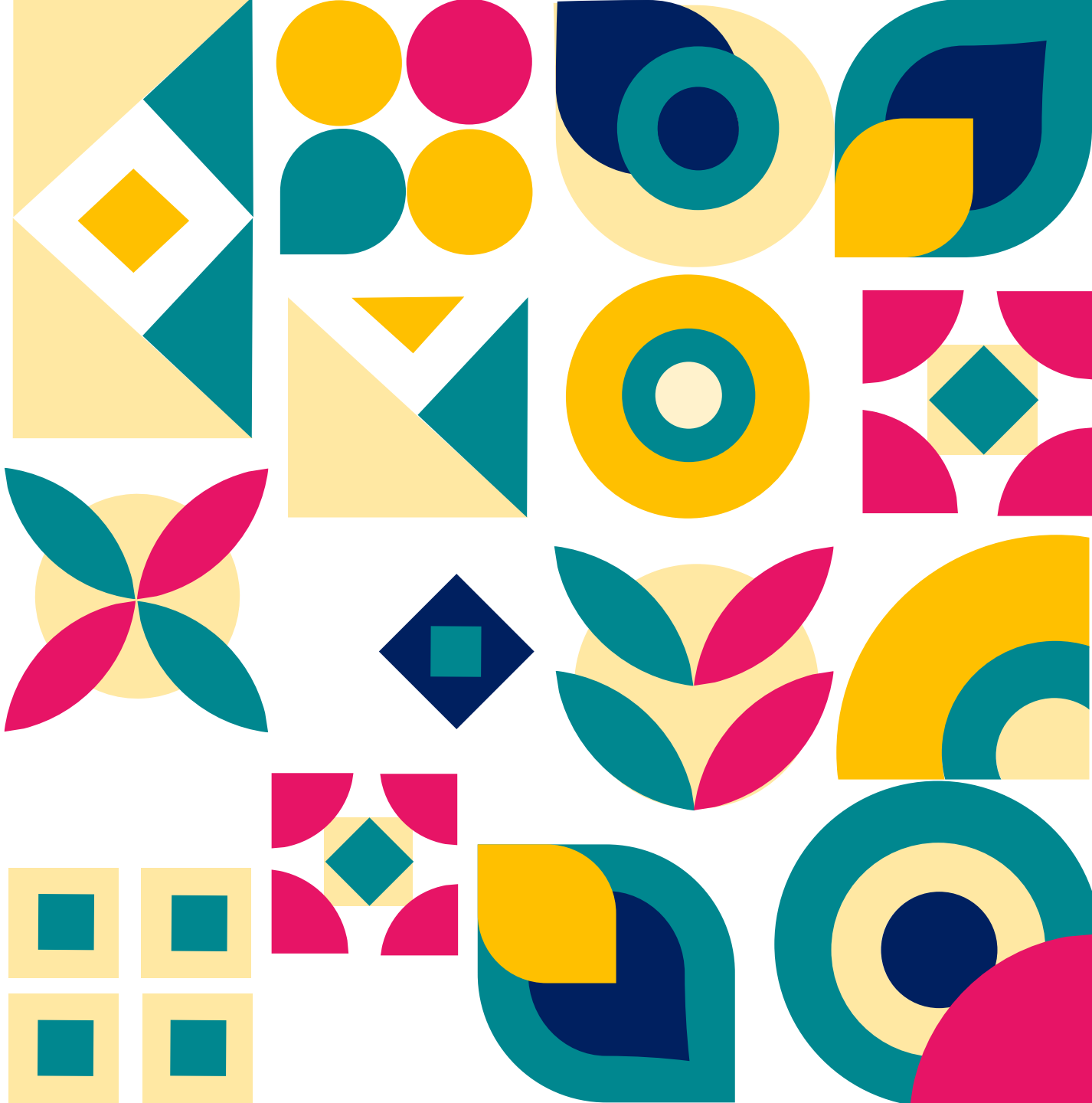
❖Types of data dictionary

- Active
- Passive

Advantages Of DATA Dictionary

1. Well-structured
2. Analyze
3. Helpful
4. Valuable

What's on your mind?
Live
Photo
Room
Create Story
BBA BIM
KIST
asked a question?
just now.
Any Queries regarding the Topic?
Like
Comment
Share

?

Thank You