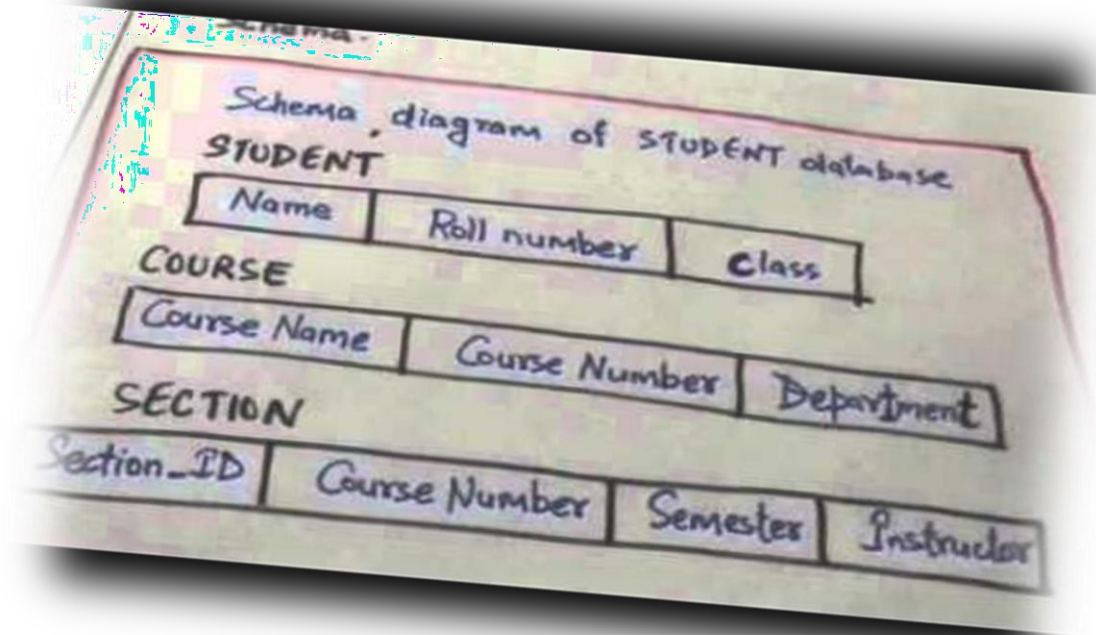


# DATABASE SCHEME



- A description of database
- Describe during database design and expected to change frequently
- A database schema is the skeleton structure that represents the **logical view** of the entire database.

## DB Syntax :

`DATABASE NAME (tableName1, tableName2, tableNameN) ;`

# DATABASE SCHEME



**POLIMAS (STUDENT , COURSE , PREREQUISITE , GRADE\_REPORT) ;**

# DATABASE SCHEME

## STUDENT

Name	Student_number	Class	Major
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## COURSE

Course_name	Course_number	Credit_hours	Department
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## PREREQUISITE

Course_number	Prerequisite_number
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## SECTION

Section_identifier	Course_number	Semester	Year	Instructor
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## GRADE\_REPORT

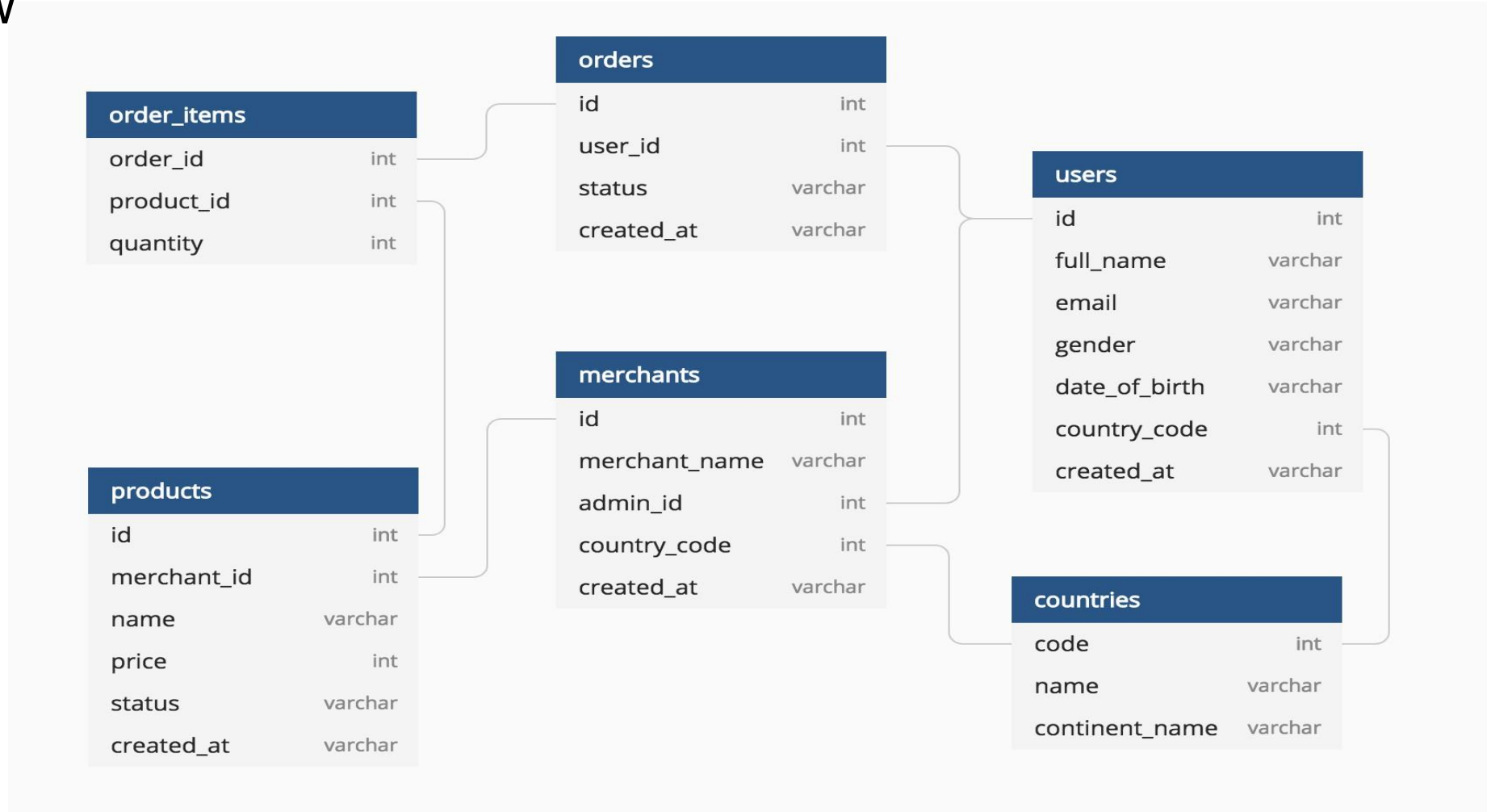
Student_number	Section_identifier	Grade
----------------	--------------------	-------

visual diagram



# Scheme Database

## Logical View

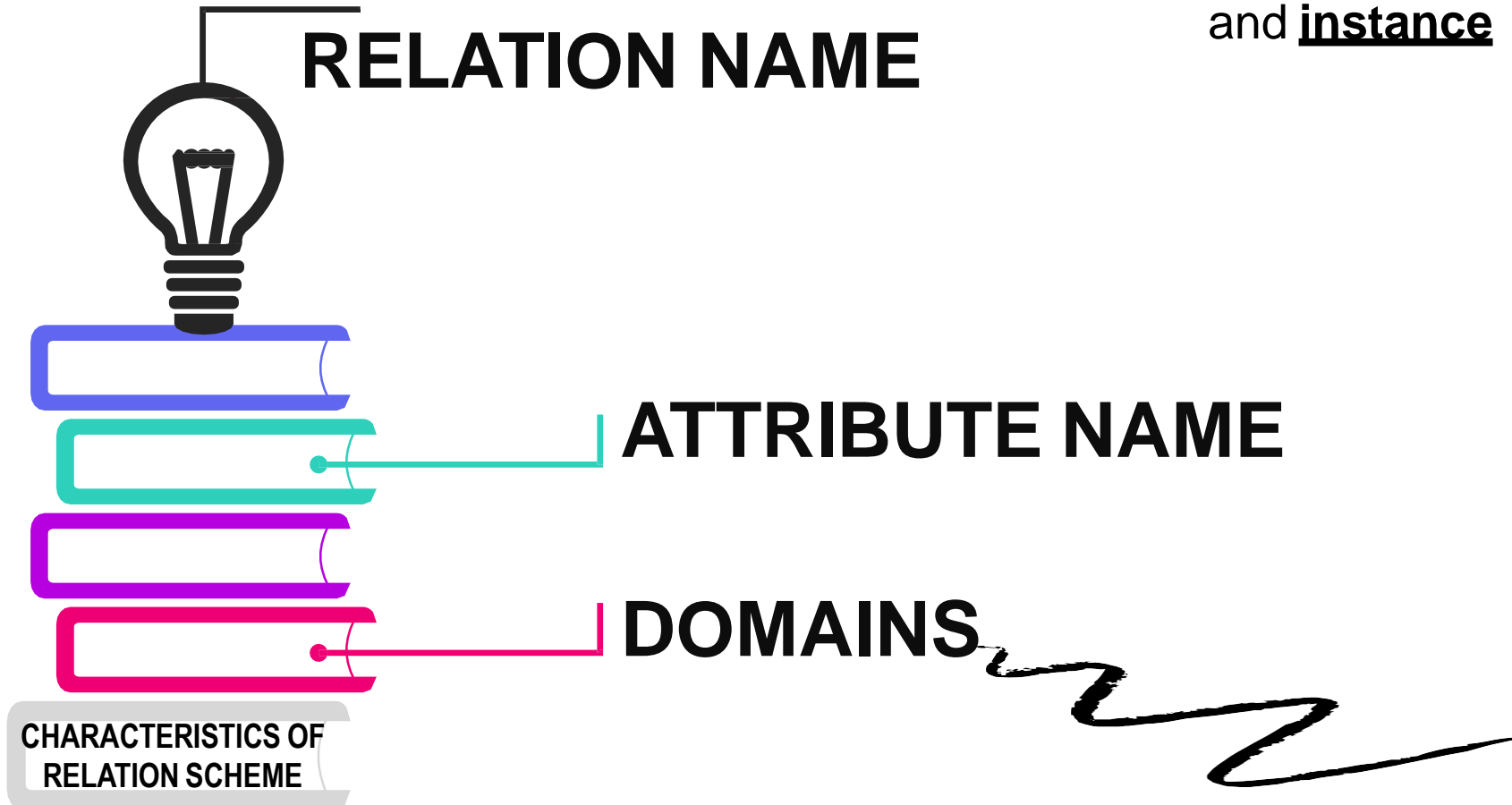


# WHAT ?

Is a named relation defined by a set of **attribute** and **domain name** pairs

# RELATIONAL SCHEME

- ❑ Relation consists of a relation schema and instance



# Syntax

Relation Name (att1, att2, attn...) ;



# RELATIONAL SCHEME

**Table : Stationary**

prod_ID	prod_name	qty	price
P001	Eraser	45	1.20
P002	Red Pen	25	2.50
P003	Black Marker	30	4.50
P004	Ruler	15	1.50
P005	Yellow Highlighter	20	3.40

# Syntax

Relation Name(att1, att2, attn...);



# RELATIONAL SCHEME

Table : Stationary

prod_ID	prod_name	qty	price
P001	Eraser	45	1.20
P002	Red Pen	25	2.50
P003	Black Marker	30	4.50
P004	Ruler	15	1.50
P005	Yellow Highlighter	20	3.40

Column Name

Table  
Name

STATIONARY (prod\_ID, prod\_name, qty, price);

# Syntax

`Relation (val1, val2, valn...);`



## RELATIONAL INSTANCE



**Values** of corresponding domains

A finite set of tuples in the RDBMS system.

Relation instances never have duplicate tuples.

```
STATIONARY ("P001", "Eraser", 45, 1.20);
```

```
STATIONARY ("P002", "Red Pen", 25, 2.50);
```

```
STATIONARY ("P003", "Black Marker", 30, 4.50);
```

```
STATIONARY ("P004", "Ruler", 15, 1.50);
```

```
STATIONARY ("P005", "Yellow Highlighter", 20, 3.40);
```