

Subject : Software Engineering
Subject Code : CS3273
Section: Gx

Topic : Data modelling of software development

Assignment - 6

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Data Modeling


- ▶ Data modeling is the process of creating a conceptual representation of data and its relationships in a specific domain or system.
- ▶ This representation is usually in the form of a diagram or a set of diagrams, which show the data entities, attributes, relationships, and constraints in a clear and understandable manner.

Data Modeling continues..


- ▶ The main goal of data modeling is to create a blueprint for a database or information system, which can be used as a basis for designing, implementing, and maintaining the system.
- ▶ The data model also helps to ensure that the data is accurate, consistent, and complete, and can be easily queried and manipulated.

▶ Data Base Schema

- ▶ Table students {
- ▶ student_id integer [primary key]
- ▶ student_name varchar
- ▶ program varchar
- ▶ year integer
- ▶ phone_number integer
- ▶ }




- ▶ Table fees{
- ▶ student_id integer [primary key]
- ▶ fee_id integer [pk]
- ▶ x1_fees decimal
- ▶ x2_fees decimal
- ▶ x3_fees decimal
- ▶ due_date date
- ▶ }



```
▶ Table course{  
▶   student_id integer [primary key]  
▶   subject1 varchar  
▶   subject2 varchar  
▶   subject3 varchar  
▶ }  
▶
```

- ▶ Table payment{
 - ▶ fee_id integer [primary key]
 - ▶ payment_id integer [primary key]
 - ▶ date varchar
 - ▶ amount decimal
 - ▶ payment_method varchar
 - ▶ }
 - ▶



- ▶ Table finance_dept {
- ▶ employee_id integer [pk]
- ▶ name varchar
- ▶ phone_number integer
- ▶ }

students	
student_id	integer
student_name	varchar
program	varchar
year	integer
phone_number	integer

finance_dept	
employee_id	integer
name	varchar
phone_number	integer

fees	
student_id	integer
fee_id	integer
x1_fees	decimal
x2_fees	decimal
x3_fees	decimal
due_date	date

course	
student_id	integer
subject1	varchar
subject2	varchar
subject3	varchar

payment	
fee_id	integer
payment_id	integer
date	varchar
amount	decimal
payment_method	varchar

