



# CSS225 Lab 1

Dr.Wittawin Susutti  
wittawin.sus@kmutt.ac.th

## Creating Database

# Create and delete Schema

- **CREATE SCHEMA** Shop;
- **DROP DATABASE** shop;
- **USE** shop;



# Creating Tables

- **CREATE TABLE** Customer(  
    CustomerID int       **NOT NULL AUTO\_INCREMENT PRIMARY KEY,**  
    CustFirstName       **varchar(25),**  
    CustMidName         **varchar(10),**  
    CustLastName        **varchar(25)**  
);
- **desc** Customer;

# Creating Tables

- **CREATE TABLE** SalesOrder(  
    OrderID int **NOT NULL AUTO\_INCREMENT PRIMARY KEY**,  
    OrderDate **date**,  
    CustomerID int,  
    **FOREIGN KEY** (CustomerID) **REFERENCES** Customer(CustomerID)  
);
- **desc** SalesOrder;

# Creating Tables

- Create table 'Product' with attributes 'ProductID' as primary key, 'ProductName', 'UnitPrice' as decimal, and 'NumberInStock'.
- Create table 'OrderLine' with attributes 'OrderLineID' as primary key, 'OrderID', 'ProductID', and 'QuantityOrdered'. 'OrderID' and 'ProductID' are foreign keys referred to table 'SalesOrder' and 'Product' respectively.



# Show database

- **SHOW DATABASES;**
- **SHOW TABLES;**



# Populating Tables

- **INSERT INTO** Customer (CustFirstName, CustLastName)  
**VALUES** ('John', 'Doe');
- **SELECT \* FROM** Customer;
- **INSERT INTO** Customer (CustFirstName, CustMidName, CustLastName)  
**VALUES** ('Bob', 'R.', 'Travis');
- **SELECT \* FROM** Customer;

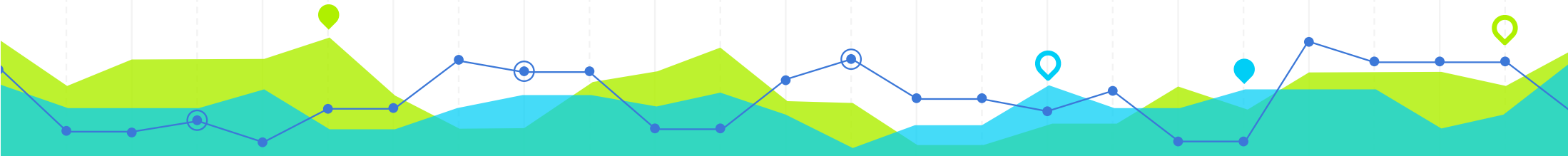
# Populating Tables

- **INSERT INTO** Product (ProductID, ProductName, UnitPrice, NumberInStock) **VALUES** (1, 'Strawberry', 4.99, 16);
- **SELECT \* FROM** Product;
- **ALTER TABLE** Product **MODIFY** UnitPrice **decimal** (5, 2);
- **UPDATE** Product **SET** UnitPrice =4.99 **WHERE** ProductID =1;



# Populating Tables

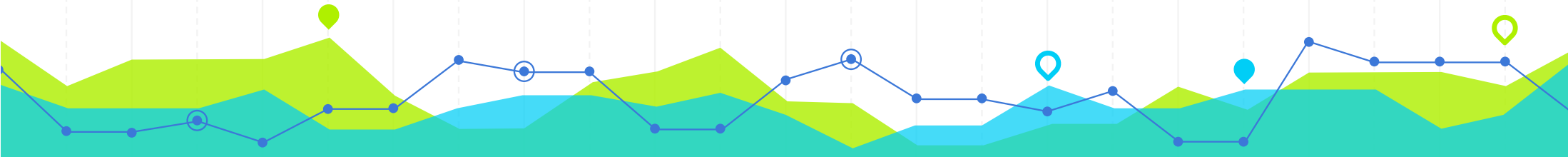
- **INSERT INTO** SalesOrder (OrderDate, CustomerID) **VALUES** (DATE '2006-10-11', 1);
- **SELECT \* FROM** SalesOrder;
- **INSERT INTO** OrderLine (OrderLineID, OrderID, ProductID, QuantityOrdered) **VALUES** (1,1,1, '3kg');



# Useful Row and Table Commands

## Table Copying

- **CREATE TABLE** Customer2 **AS SELECT** \* **FROM** Customer;
- **CREATE TABLE** Customer3 **LIKE** Customer;



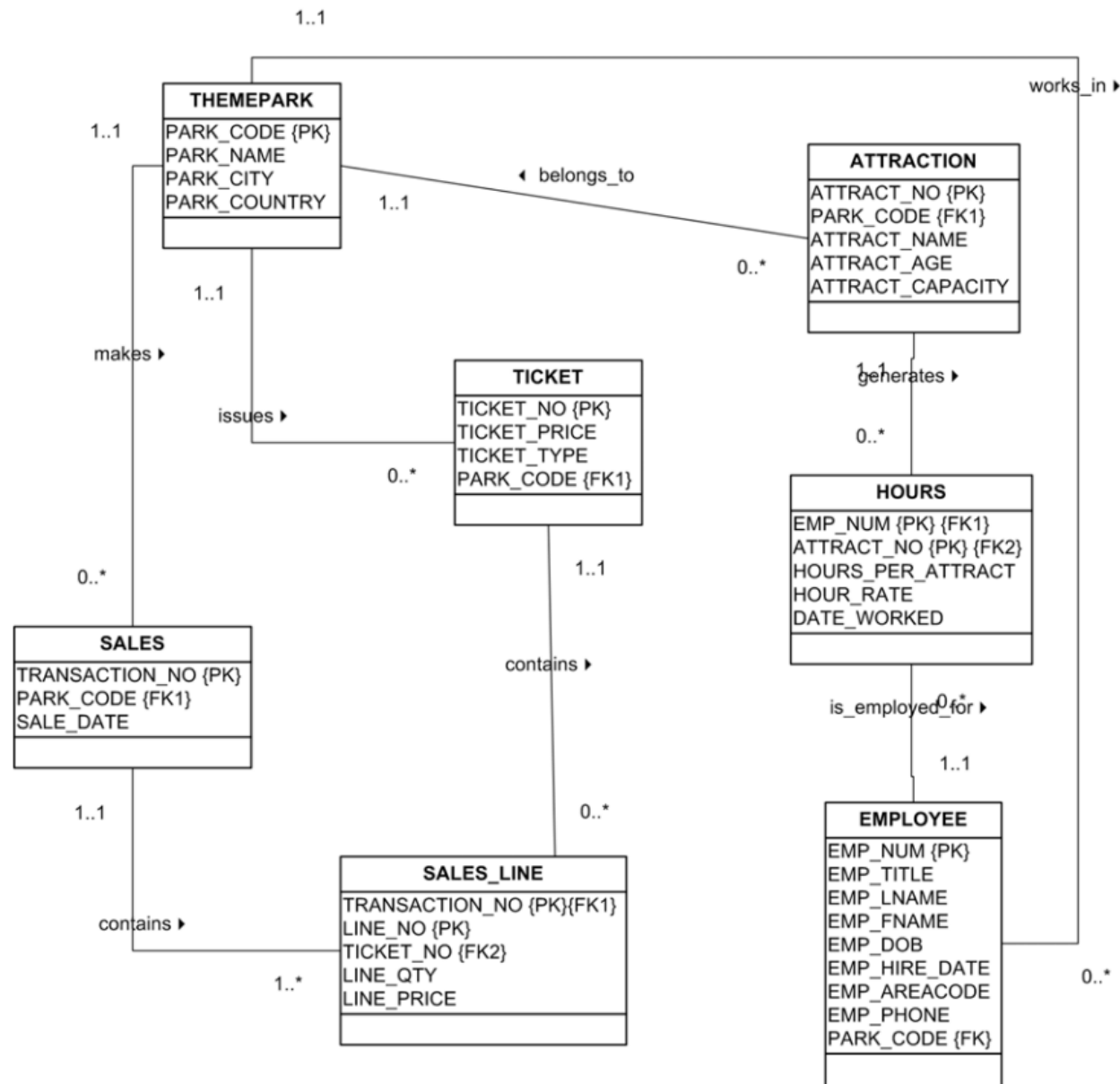
# Useful Row and Table Commands

## Table Deletion

- **DROP TABLE** Customer3;

## Row Deletion

- **DELETE FROM** Customer2 **WHERE** CustomerID=1.



# Data dictionary

Table name	Attribute name	Content	Data type	Format	Range	Required	PK/FK	FK referenced table
THEMEPARK	PARK_CODE	Park code	VARCHAR(10)	XXXXXXXX	NA	Y	PK	
	PARK_NAME	Park Name	VARCHAR( 35)	XXXXXXXX	NA	Y		
	PARK_CITY	City	VARCHAR( 50)	XXXXXXXX	NA	Y		
	PARK_COUNTR Y	Country	CHAR(2)	xx	NA	Y		

Table name	Attribute name	Content	Data type	Format	Range	Required	PK/FK	FK referenced table
EMPLOYEE	EMP_NUM	Employee number	NUMERIC(4)	####	0000 – 9999	Y	PK	
	EMP_TITLE	Employee title	VARCHAR(4)	XXXX	NA	N		
	EMP_LNAME	Last name	VARCHAR(15)	XXXXXXXX	NA	Y		
	EMP_FNAME	First Name	VARCHAR(15)	XXXXXXXX	NA	Y		
	EMP_DOB	Date of Birth	DATE	YYYY-MM-DD	NA	Y		
	EMP_HIRE_DATE	Hire date	DATE	YYYY-MM-DD	NA	Y		
	EMP_AREACODE	Area code	VARCHAR(4)	XXXX	NA	Y		
	EMP_PHONE	Phone	VARCHAR (12)	XXXXXXXX	NA	Y		
	PARK_CODE	Park code	VARCHAR(10)	XXXXXXXX	NA	Y	FK	THEMEPARK

Table name	Attribute name	Content	Data type	Format	Range	Required	PK/FK	FK referenced table
TICKET	TICKET_NO	Ticket number	NUMERIC(10)	#####	NA	Y	PK	
	TICKET_PRICE	Price	NUMERIC(4,2)	##.##	NA			
	TICKET_TYPE	Type of ticket	VARCHAR(10)	XXXXXXX	NA	Y		
	PARK_CODE	Park code	VARCHAR(10)	XXXXXXX	NA	Y	FK	THEMEPARK
ATTRACTION	ATTRACT_NO	Attraction number	NUMERIC(10)	#####	NA	Y	PK	
	PARK_CODE	Park code	VARCHAR(10)	XXXXXXX	NA	Y	FK	THEMEPARK
	ATTRACT_NAME	Name	VARCHAR(35)	XXXXXXX	NA	Y		
	ATTRACT_AGE	Age	NUMERIC(3)	###	Default 0	Y		
	ATTRACT_CAPACITY	Capacity	NUMERIC(3)	###	NA	Y		

Table name	Attribute name	Content	Data type	Format	Range	Required	PK/FK	FK referenced table
HOUR	EMP_NUM	Employee number	NUMERIC(4)	####	NA	Y	PK/FK	EMPLOYEE
	ATTRACT_NO	Attraction number	NUMERIC(10)	#####	NA	Y	PK/FK	ATTRACTION
	HOURS_PER_ATTRACT	Number of hours	NUMERIC(2)	##	NA	Y		
	HOUR_RATE	Hourly Rate	NUMERIC(4,2)	##.##	NA	Y		
	DATE_WORKED	Date worked	DATE	YYYY-MM-DD	NA	Y		



Table name	Attribute name	Content	Data type	Format	Range	Required	PK/FK	FK referenced table
<b>SALES</b>	TRANSACTION_NO	Ticket number	NUMERIC	#####	NA	Y	PK	
	PARK_CODE	Park code	VARCHAR(10)	XXXXXXX	NA	Y	FK	THEMEPARK
	SALE_DATE	Date of Sale	DATE	YYYY-MM-DD	NA	Y		
<b>SALESLINE</b>	TRANSACTION_NO	Transaction No	NUMERIC	#####	NA	Y	PK / FK	SALES
	LINE_NO	Line number	NUMERIC(2)	##	NA	Y		
	TICKET_NO	Ticket number	NUMERIC(10)	#####	NA	Y	FK	TICKET
	LINE_QTY	Quantity	NUMERIC (4)	####	NA	Y		
	LINE_PRICE	Price of line	NUMERIC(9.2)	#####.##	NA	Y		