



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
SEMESTER 1 / 20232024

SECD2523 - 03 DATABASE

LAB EXERCISE 1

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NAME	MATRIC NUMBER
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PART 1:

- 1) 10 tables
- 2) 6 columns
- 3) NOT NULL
- 4) ctr_number
- 5) Highest = 0 and lowest = 99
- 6) Highest = 9999999.99 and lowest = - 9999999.99
- 7) itm_number, start_date, start_time

PART 2:

Modifying a column

- 1) DESCRIBE orders;
- 2) ALTER TABLE orders

MODIFY odr_date default sysdate

- 3) DESCRIBE orders;

TABLE ORDERS

Column	Null?	Type
ID	NOT NULL	VARCHAR2(9)
ODR_DATE	NOT NULL	DATE
ODR_TIME	NOT NULL	DATE
NUMBER_OF_UNITS	NOT NULL	NUMBER(2,0)
CTR_NUMBER	NOT NULL	VARCHAR2(6)

Adding a check constraint

- 1) DESCRIBE customers;
- 2) ALTER TABLE customers

ADD CONSTRAINTS current_balance CHECK (current_balance >= 0)

- 3) DESCRIBE customers;

TABLE CUSTOMERS

Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(30)
PHONE_NUMBER	NOT NULL	VARCHAR2(11)
CURRENT_BALANCE	NOT NULL	NUMBER(6,2)
SRE_ID	-	VARCHAR2(4)
TEM_ID	-	VARCHAR2(4)
LOYALTY_CARD_NUMBER	-	VARCHAR2(6)

4)

Constraints									
Constraint	Type	Condition	Related Constraint	Related Table	Constraint Columns	On Delete	Status	Last Change	Invalid?
CURRENT_BALANCE	Check	current_balance >= 0	-	-	-	-	ENABLED	5 minutes ago	-
SYS_C00137302847	Check	"CTR_NUMBER" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
SYS_C00137302848	Check	"EMAIL" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
SYS_C00137302849	Check	"FIRST_NAME" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
SYS_C00137302850	Check	"LAST_NAME" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
SYS_C00137302851	Check	"PHONE_NUMBER" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
SYS_C00137302852	Check	"CURRENT_BALANCE" IS NOT NULL	-	-	-	-	ENABLED	2 hours ago	-
CUSTOMER_SALES_REP_FK	Foreign Key	-	SALES_REPRESENTATIVE_PK	SALES_REPRESENTATIVES	SRE_ID	NO ACTION	ENABLED	2 hours ago	-
CUSTOMER_TEAM_FK	Foreign Key	-	TEAM_PK	TEAMS	TEM_ID	NO ACTION	ENABLED	2 hours ago	-
CUSTOMER_PK	Primary Key	-	-	-	CUSTOMER_ID	-	ENABLED	2 hours ago	-
CTR_EMAIL_UK	Unique Key	-	-	-	EMAIL	-	ENABLED	2 hours ago	-
CTR_LCN_UK	Unique Key	-	-	-	LOYALTY_CARD_NUMBER	-	ENABLED	2 hours ago	-

Adding a column

- 1) DESCRIBE customers;
- 2) ALTER TABLE customers

ADD mobile_phone_number VARCHAR2(11);

- 3) DESCRIBE customers;

TABLE CUSTOMERS

Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(30)
PHONE_NUMBER	NOT NULL	VARCHAR2(11)
CURRENT_BALANCE	NOT NULL	NUMBER(6,2)
SRE_ID	-	VARCHAR2(4)
TEM_ID	-	VARCHAR2(4)
LOYALTY_CARD_NUMBER	-	VARCHAR2(6)
MOBILE_PHONE_NUMBER	-	VARCHAR2(11)

Dropping a column

- 1) DESCRIBE customers;
- 2) ALTER TABLE customers

DROP (mobile_phone_number);

3) DESCRIBE customers;

TABLE CUSTOMERS

Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(30)
PHONE_NUMBER	NOT NULL	VARCHAR2(11)
CURRENT_BALANCE	NOT NULL	NUMBER(6,2)
SRE_ID	-	VARCHAR2(4)
TEM_ID	-	VARCHAR2(4)
LOYALTY_CARD_NUMBER	-	VARCHAR2(6)