

No.:

Date:

SECD 2523 - Database

Name : TAM JIA HAO

Matric No: A22EC0106

Section : 06

Title : Lab1 - SQL1-DDL Section 6 Lesson 3 Exercise : Data Definition Language

Part 1

1. 10 tables
2. 6 columns
3. NOT NULL statement
4. The name of the foreign key is customer_address_customer_fk
5. Lowest value : -99
Highest value : 99
6. Lowest value : -99999.99
Highest value : 99999.99
7. itm_number, start_date and start_time

No.:

Date:

Part 2

Modifying a column

1. DESCRIBE orders;

1 DESCRIBE orders;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	-	-
	ODR_TIME	DATE	7	-	-	-	-	-	-
	NUMBER_OF_UNITS	NUMBER	-	2	0	-	-	-	-
	CTR_NUMBER	VARCHAR2	6	-	-	-	-	-	-

2. ALTER TABLE orders

MODIFY (odr_date Date DEFAULT SYSDATE);

Language

SQL



Rows

10



Clear Command

Find Tables



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```
1 ALTER TABLE orders
2 MODIFY (odr_date Date DEFAULT SYSDATE);
3
```

Results

Explain

Describe

Saved SQL

History

Table altered.

0.05 seconds

3. DESCRIBE orders;

```
1 DESCRIBE orders;  
2
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	SYSDATE	-
	ODR_TIME	DATE	7	-	-	-	-	-	-
	NUMBER_OF_UNITS	NUMBER	-	2	0	-	-	-	-
	CTR_NUMBER	VARCHAR2	6	-	-	-	-	-	-

Adding a check constraint

1. DESCRIBE customers;

1 `DESCRIBE customers;`

Results Explain **Describe** Saved SQL History

Object Type **TABLE** ? Object **CUSTOMERS** ?

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	NUMBER	-	6	2	-	-	-	-
	SRE_ID	VARCHAR2	4	-	-	-	✓	-	-
	TEM_ID	VARCHAR2	4	-	-	-	✓	-	-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	✓	-	-

2. ALTER TABLE customers

ADD CONSTRAINT current_balance_check CHECK (current_balance \geq 0);

Language

SQL



Rows

10



Clear Command

Find Tables



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```
1 ALTER TABLE customers
2 ADD CONSTRAINT current_balance_check CHECK (current_balance >= 0);
```

Results

Explain

Describe

Saved SQL

History

Table altered.

0.04 seconds

3. DESCRIBE customers ;

1 DESCRIBE customers;

Results Explain **Describe** Saved SQL History

Object Type **TABLE** ? Object **CUSTOMERS** ?

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	NUMBER	-	6	2	-	-	-	-
	SRE_ID	VARCHAR2	4	-	-	-	✓	-	-
	TEM_ID	VARCHAR2	4	-	-	-	✓	-	-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	✓	-	-

4.

Columns	Data	Indexes	Constraints	Grants	Statistics	Triggers	Dependencies	DDL	Sample Queries
+ Create	Drop	Enable	Disable	Refresh					
Constraint	Type	Search Condition	Related Constraint	Columns	Delete Rule	Status	Last Change	Index	Invalid
CURRENT_BALANCE_CHECK	Check	current_balance >= 0				ENABLED	11/09/2023		
SYS_C00149239522	Check	"CTR_NUMBER" IS NOT NULL				ENABLED	11/09/2023		
SYS_C00149239523	Check	"EMAIL" IS NOT NULL				ENABLED	11/09/2023		
SYS_C00149239524	Check	"FIRST_NAME" IS NOT NULL				ENABLED	11/09/2023		
SYS_C00149239525	Check	"LAST_NAME" IS NOT NULL				ENABLED	11/09/2023		
SYS_C00149239526	Check	"PHONE_NUMBER" IS NOT NULL				ENABLED	11/09/2023		
SYS_C00149239527	Check	"CURRENT_BALANCE" IS NOT NULL				ENABLED	11/09/2023		
CUSTOMER_SALES_REP_FK	Foreign		SALES_REPRESENTATIVE_PK (W...	SRE_ID	NO ACTION	ENABLED	11/09/2023		
CUSTOMER_TEAM_FK	Foreign		TEAM_PK (WKSP_DATABASEJA...	TEM_ID	NO ACTION	ENABLED	11/09/2023		
CUSTOMER_PK	Primary			CTR_NUMBER		ENABLED	11/09/2023	CUSTOMER_PK	
CTR_EMAIL_UK	Unique			EMAIL		ENABLED	11/09/2023	CTR_EMAIL_UK	
CTR_LCN_UK	Unique			LOYALTY_CARD_NUMBER		ENABLED	11/09/2023	CTR_LCN_UK	

Adding a column

1. DESCRIBE customers;

1

DESCRIBE customers;

Results

Explain

Describe

Saved SQL

History

Object Type

TABLE

Object

CUSTOMERS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	NUMBER	-	6	2	-	-	-	-
	SRE_ID	VARCHAR2	4	-	-	-	✓	-	-
	TEM_ID	VARCHAR2	4	-	-	-	✓	-	-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	✓	-	-


```
2. ALTER TABLE customers  
ADD mobile_phone_number VARCHAR2(11);
```


Language

SQL



Rows

10



Clear Command

Find Tables



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```
1 ALTER TABLE customers
2 ADD mobile_phone_number VARCHAR2(11);
```

Results

Explain

Describe

Saved SQL

History

Table altered.

0.07 seconds

3. DESCRIBE customers;

1 `DESCRIBE customers;`

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	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;

LanguageSQL?Rows10?Clear CommandFind Tables

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1DESCRIBE customers;

ResultsExplainDescribeSaved SQLHistory

Object TypeTABLE?ObjectCUSTOMERS?

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	NUMBER	-	6	2	-	-	-	-
	SRE_ID	VARCHAR2	4	-	-	-	✓	-	-
	TEM_ID	VARCHAR2	4	-	-	-	✓	-	-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	✓	-	-
	MOBILE_PHONE_NUMBER	VARCHAR2	11	-	-	-	✓	-	-

Scanned with CamScanner

2.

ALTER TABLE customers

DROP COLUMN mobile_phone_number;

Language

SQL



Rows

10



Clear Command

Find Tables



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1 ALTER TABLE customers

2 DROP COLUMN mobile_phone_number;

Results

Explain

Describe

Saved SQL

History

Table altered.

0.05 seconds

3.

DESCRIBE

customers ;

1

DESCRIBE customers;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6	-	-	1	-	-	-
	EMAIL	VARCHAR2	50	-	-	-	-	-	-
	FIRST_NAME	VARCHAR2	20	-	-	-	-	-	-
	LAST_NAME	VARCHAR2	30	-	-	-	-	-	-
	PHONE_NUMBER	VARCHAR2	11	-	-	-	-	-	-
	CURRENT_BALANCE	NUMBER	-	6	2	-	-	-	-
	SRE_ID	VARCHAR2	4	-	-	-	✓	-	-
	TEM_ID	VARCHAR2	4	-	-	-	✓	-	-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	✓	-	-