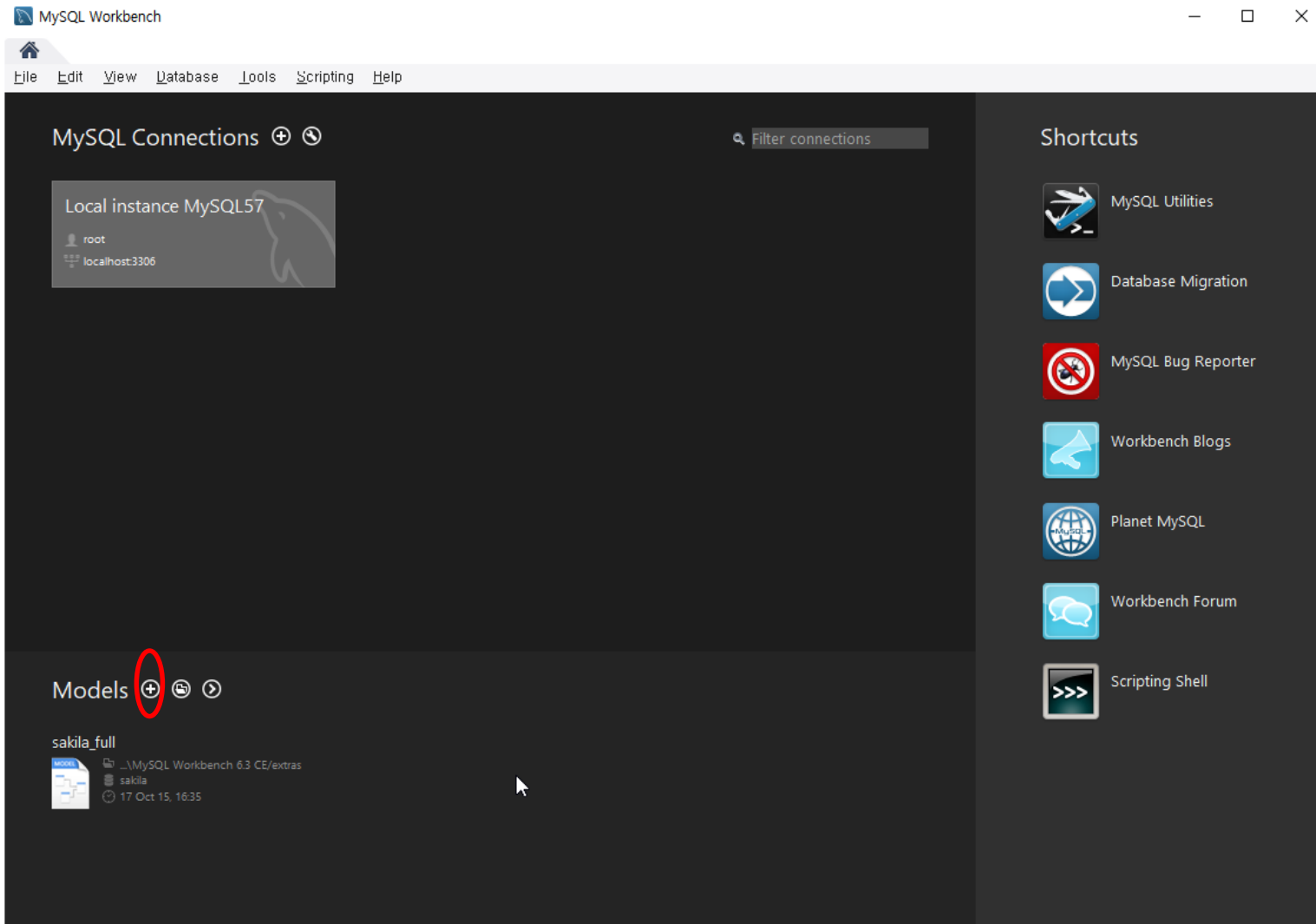


ERD 화면 시작

■ 워크 벤치 실행



ERD 에서 사용할 DB 생성

The image shows two screenshots from the SQL Developer interface. The top screenshot shows the 'Physical Schemas' tree with a red box around the 'mydb' schema and a mouse cursor hovering over it with the text '더블 클릭' (Double Click). The bottom screenshot shows the 'shoppingMall_db - Schema' dialog box with a red box around the 'Name' field containing 'shoppingMall_db'.

Physical Schemas

mydb
MySQL Schema

더블 클릭

Tables (0 items)

Add Table

Views (0 items)

Add View

Routines (0 items)

Add Routine

Routine Groups (0 items)

Add Group

Physical Schemas

shoppingMall_db
MySQL Schema

shoppingMall_db - Schema

Name: shoppingMall_db

Rename References

Collation: utf8 - utf8_general_ci


Comments:

The name of the schema. It is recommended to use only alpha-numeric characters. Spaces


Refactor model, changing all references found in view, triggers, stored procedures and func

Specifies which charset/collations the schema's tables will use if they do not have an explic



Model Overview

 더블 클릭


Physical Schemas

 shoppingMall_db
MySQL Schema

Tables (1 item)

 Add Table  table1



Views (0 items)

 Add View


Routines (0 items)

↓



Model Overview

 Add Diagram  EER Diagram


Physical Schemas

 shoppingMall_db
MySQL Schema

Tables (1 item)

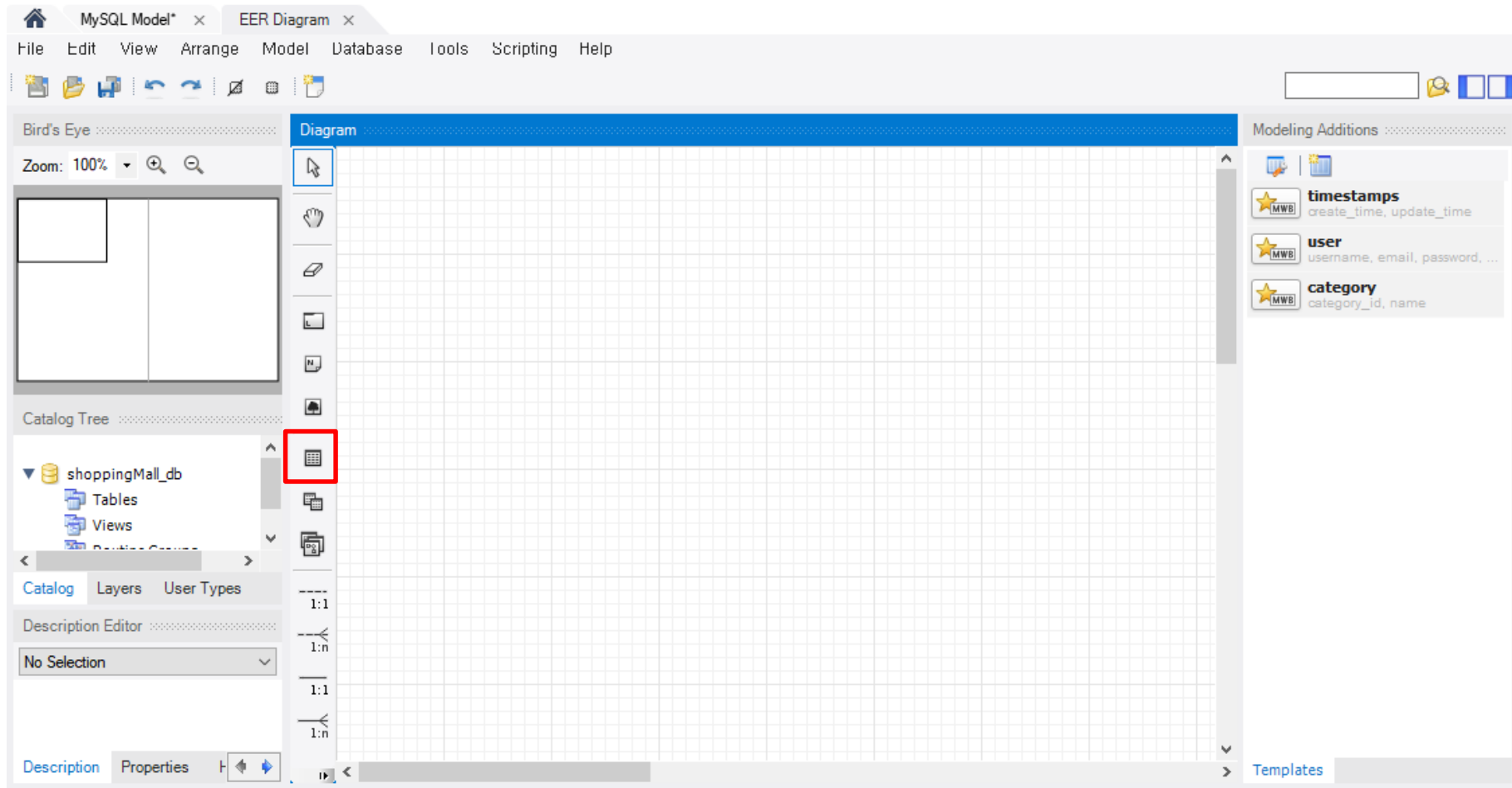
 Add Table  table1

Views (0 items)

 Add View

Routines (0 items)

ERD 테이블 생성



ERD 테이블 필드 생성

Diagram

1. 더블 클릭

table1

2. 위로 올림

위로 올림

Table Name: Schema: shoppingMall_db

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
-------------	----------	----	----	----	---	----	----	----	---	--------------------

Column Name:

Collation:

Comments:

Data Type:

Default:

Storage: ☐ Virtual ☐ Stored

☐ Primary Key ☐ Not Null ☐ Unique

☐ Binary ☐ Unsigned ☐ Zero Fill

☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges

ERD 테이블 필드 생성

Diagram

user

- id VARCHAR(45)
- pw VARCHAR(45)
- name VARCHAR(45)
- addr VARCHAR(45)

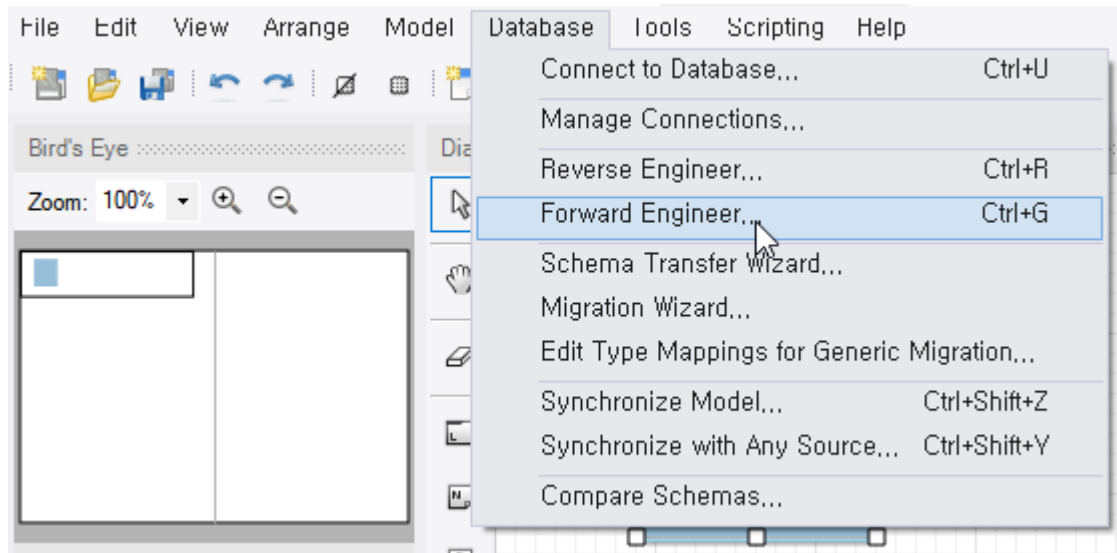
Indexes

user - Table

Table Name: user Schema: **shoppMall_db**

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
id	VARCHAR(45)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
pw	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
name	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
addr	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ERD 로 SQL문 생성하기



ERD 로 SQL문 생성하기

Forward Engineer to Database



Connection Options

Options

Select Objects

Review SQL Script

Commit Progress

Set Parameters for Connecting to a DBMS

선택

Stored Connection: Local instance MySQL57 Select from saved connection settings

Connection Method: Standard (TCP/IP) Method to use to connect to the RDBMS

Parameters

SSL

Advanced

Hostname: localhost Port: 3306 Name or IP address of the server host - and TCP/IP port.

Username: root Name of the user to connect with.

Password: Store in Vault ... Clear The user's password. Will be requested later if not set.

Default Schema: The schema to use as default schema. Leave blank to select it later.

Back

Next

Cancel

ERD 로 SQL문 생성하기

Forward Engineer to Database



Connection Options

Options

Select Objects

Review SQL Script

Commit Progress

Review the SQL Script to be Executed

This script will now be executed on the DB server to create your databases.
You may make changes before executing.

```
1  -- MySQL Workbench Forward Engineering
2
3  SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0;
4  SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CH
5  SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='TRADITIONAL,ALLOW_INVALID
6
7  -----
8  -- Schema shoppMall_db
9  -----
10
11 -----
12 -- Schema shoppMall_db
13 -----
14 CREATE SCHEMA IF NOT EXISTS `shoppMall_db` DEFAULT CHARACTER SET utf
15 USE `shoppMall_db` ;
16
17 -----
18 -- Table `shoppMall_db`.`user`
19 -----
20 CREATE TABLE IF NOT EXISTS `shoppMall_db`.`user` (
21   `id` VARCHAR(45) NOT NULL,
22   `pw` VARCHAR(45) NOT NULL,
23   `name` VARCHAR(45) NOT NULL,
24   `addr` VARCHAR(45) NOT NULL,
25   PRIMARY KEY (`id`))
26 ENGINE = InnoDB;
27
28
29 SET SQL_MODE=@OLD_SQL_MODE;
30 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS;
31 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS;
32
```



Save to File...

Copy to Clipboard

Back

Next

Cancel

ERD 로 SQL문 생성하기

The screenshot displays the MySQL Workbench interface. The top toolbar shows the 'Local instance MySQL57' connection. The left sidebar contains the 'MANAGEMENT', 'INSTANCE', 'PERFORMANCE', and 'SCHEMAS' sections. The 'SCHEMAS' section shows the 'shopmall_db' database selected, with the 'user' table highlighted. The 'user' table's structure is shown in the 'Result Grid' pane, which is also highlighted. The 'Result Grid' shows the following columns: id, pw, name, and addr. The data row shows all columns as NULL. The SQL query editor at the top displays the query: `SELECT * FROM shopmall_db.user;`

id	pw	name	addr
NULL	NULL	NULL	NULL

모델링만으로 테이블이 생성됨

Foreign key 생성하기

- Pk : 하나의 테이블에서 중복이 없는 레코드를 식별하는 유일한 값
- Fk : 다른 테이블의 pk를 참고한 값
- 실선 pk
- 점선 fk

Foreign key 생성하기

■ Order 테이블 추가

Diagram

```
graph LR; user --> order; user((user)); order((order)); user --> order;
```

user

- id VARCHAR(45)
- pw VARCHAR(45)
- name VARCHAR(45)
- addr VARCHAR(45)

Indexes

order

- order_id VARCHAR(45)
- user_id VARCHAR(45)
- product_name VARCHAR(45)
- price INT

Indexes

order - Table

Table Name: Schema: **shoppMall_db**

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
order_id	VARCHAR(45)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
user_id	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
product_name	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
price	INT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Foreign key 생성하기

Foreign key 지정

Diagram

order - Table x

Table Name: order Schema: shoppMall_db

Foreign Key Name	Referenced Table	Column	Referenced Column
user_id	shoppMall_db`.`user`	<input checked="" type="checkbox"/> user_id	id
		<input type="checkbox"/> order_id	
		<input type="checkbox"/> product_name	
		<input type="checkbox"/> price	

Foreign Key Options

On Update: NO ACTION

On Delete: NO ACTION

Foreign Key Comment generation

Columns Indexes **Foreign Keys** Triggers Partitioning Options Inserts Privileges

Foreign key 생성하기

■ 결과 확인

The screenshot shows the MySQL Workbench interface. On the left, the 'Navigator' pane displays the 'shopmall_db' database structure. The 'order' table is selected, and its 'Foreign Keys' are expanded, showing a foreign key named 'user_id' which is highlighted with a red rectangle. The main query editor shows a query: `SELECT * FROM shopmall_db.`order`;`. Below the query editor, the 'Result Grid' displays the following data:

	order_id	user_id	product_name	price
*	NULL	NULL	NULL	NULL

- 다음과 같은 테이블을 설계후 SQL문을 생성하세요

- db name : warehouse

	테이블 네임
--	--------

Manufacturer	
id(pk)	INT
name	VARCHAR(45)
Contact	VARCHAR(45)

Product	
id(pk)	INT
Manufacturer_id(fk)	INT
name	VARCHAR(45)

■ 다음과 같은 테이블을 설계후 SQL문을 생성하세요

- db name : book_store

테이블 네임

book	
id(pk)	VARCHAR(45)
publisher	VARCHAR(45)
name	VARCHAR(45)
price	INT

order	
id(pk)	VARCHAR(45)
customer_id(fk)	VARCHAR(45)
book_id(fk)	VARCHAR(45)
total_amount	INT

customer	
id(pk)	VARCHAR(45)
pw	VARCHAR(45)
addr	VARCHAR(45)