Section1：

Diagram

Description automatically generated

Section2:

-- MySQL Script generated by MySQL Workbench

-- Sat Feb 13 16:21:29 2021

-- Model: New Model Version: 1.0

-- MySQL Workbench Forward Engineering

SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0;

SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0;

SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='ONLY\_FULL\_GROUP\_BY,STRICT\_TRANS\_TABLES,NO\_ZERO\_IN\_DATE,NO\_ZERO\_DATE,ERROR\_FOR\_DIVISION\_BY\_ZERO,NO\_ENGINE\_SUBSTITUTION';

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-- Schema mydb

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CREATE SCHEMA IF NOT EXISTS `mydb` DEFAULT CHARACTER SET utf8 ;

USE `mydb` ;

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-- Table `mydb`.`Customer`

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DROP TABLE IF EXISTS `mydb`.`Customer` ;

CREATE TABLE IF NOT EXISTS `mydb`.`Customer` (

`Customer Number` INT NOT NULL,

`Customer Name` VARCHAR(45) NOT NULL,

`Customer phone1` INT NULL,

`Customer Phone2` INT NULL,

`Customer Address1` VARCHAR(45) NULL,

`Customer Address2` VARCHAR(45) NULL,

`City, State, Zip` VARCHAR(45) NULL,

`Referred by` VARCHAR(45) NULL,

`Customer Since` DATE NOT NULL,

`Notes` VARCHAR(45) NULL,

PRIMARY KEY (`Customer Number`))

ENGINE = InnoDB;

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-- Table `mydb`.`Order`

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DROP TABLE IF EXISTS `mydb`.`Order` ;

CREATE TABLE IF NOT EXISTS `mydb`.`Order` (

`Order number` INT NOT NULL AUTO\_INCREMENT,

`Order Date` DATE NOT NULL,

`Sales Tax` DECIMAL(9,2) NULL,

`Order Total` DECIMAL(9,2) NULL,

`Delievery fees` DECIMAL(9,2) NULL,

`Special instruction` VARCHAR(45) NULL,

`Sold by` VARCHAR(45) NOT NULL,

`Customer\_Customer Number` INT NOT NULL,

PRIMARY KEY (`Order number`),

INDEX `fk\_Order\_Customer1\_idx` (`Customer\_Customer Number` ASC) VISIBLE,

CONSTRAINT `fk\_Order\_Customer1`

FOREIGN KEY (`Customer\_Customer Number`)

REFERENCES `mydb`.`Customer` (`Customer Number`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `mydb`.`Product`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `mydb`.`Product` ;

CREATE TABLE IF NOT EXISTS `mydb`.`Product` (

`Product number` INT NOT NULL,

`Desciption` VARCHAR(45) NOT NULL,

`item SKU` INT NOT NULL,

PRIMARY KEY (`Product number`))

ENGINE = InnoDB;

-- -----------------------------------------------------

-- Table `mydb`.`Order Detail`

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DROP TABLE IF EXISTS `mydb`.`Order Detail` ;

CREATE TABLE IF NOT EXISTS `mydb`.`Order Detail` (

`Order Number` INT NOT NULL,

`Product number` INT NOT NULL,

`Quantity` DECIMAL(9) NOT NULL,

`unit price` DECIMAL(9,2) NOT NULL,

`total price` DECIMAL(9,2) NULL,

`Order\_Order number` INT NOT NULL,

`Product\_Product number` INT NOT NULL,

PRIMARY KEY (`Order Number`, `Product number`, `Order\_Order number`, `Product\_Product number`),

INDEX `fk\_Order Detail\_Order\_idx` (`Order\_Order number` ASC) VISIBLE,

INDEX `fk\_Order Detail\_Product1\_idx` (`Product\_Product number` ASC) VISIBLE,

CONSTRAINT `fk\_Order Detail\_Order`

FOREIGN KEY (`Order\_Order number`)

REFERENCES `mydb`.`Order` (`Order number`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `fk\_Order Detail\_Product1`

FOREIGN KEY (`Product\_Product number`)

REFERENCES `mydb`.`Product` (`Product number`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

SET SQL\_MODE=@OLD\_SQL\_MODE;

SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS;

SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS;

Section3:

Order number and Product number in Order Detail are dependent keys that related to Order and Product. Because the Order Detail is the association entity between Product and Order.

The customer Number is the surrogate key, because it is easier to identify different customers than using other candidate composite key. And it can be a foreign key in Order table.