1. **Drawn Data model**

Product Details
- Product No. INT
- Description VARCHAR(45)
- Std. Price FLOAT

Indexes
PRIMARY
Product_Number_UNIQUE

Could have many customer invoices for a single product.

Customer Invoice
- Invoice No. INT
- Invoice Date DATE
- Customer ID INT
- Invoice Total INT

Indexes
PRIMARY
Customer_ID_idx
Invoice_Number_UNIQUE

Could have many invoices for a single product. A single product could be defined on all of those invoices.

Product Invoice
- Invoice No. INT
- Disc. Code VARCHAR(45)
- Disc. Price FLOAT
- Quantity INT
- Price FLOAT
- Product Details_Product No. INT

Indexes
PRIMARY
Invoice_Number_idx
fk_Product Invoice_Product Details1_idx

One customer could have multiple invoices.

Customer Info
- Customer ID INT
- Name VARCHAR(45)
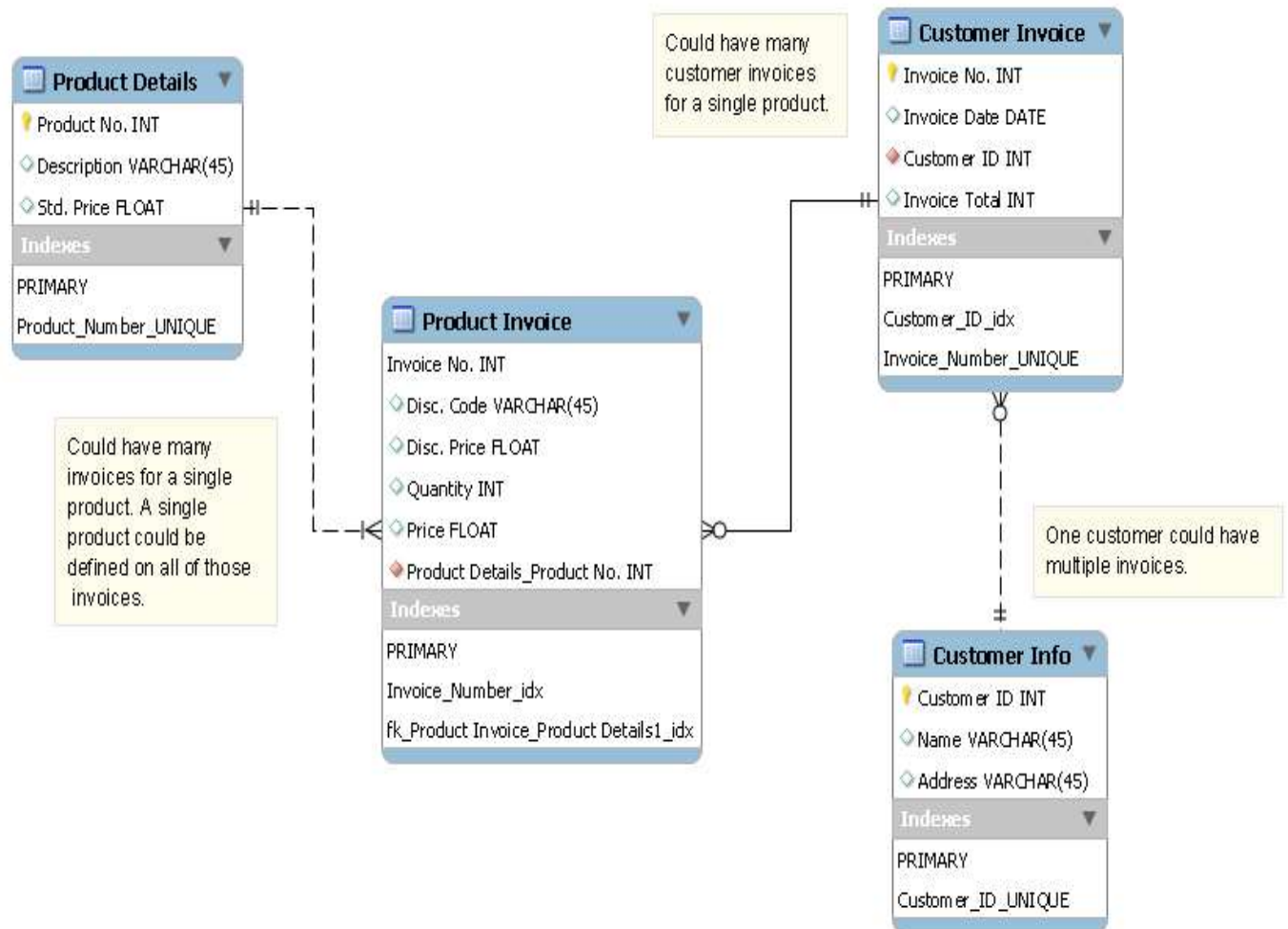- Address VARCHAR(45)

Indexes
PRIMARY
Customer_ID_UNIQUE

2. <u>DDL</u>

-- MySQL Script generated by MySQL Workbench

-- Sun Oct 14 20:45:10 2018

-- 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';**

-- ---

-- Schema HW2

-- ---

DROP SCHEMA IF EXISTS `HW2` ;

-- ---

-- Schema HW2

-- ---

CREATE SCHEMA IF NOT EXISTS `HW2` DEFAULT CHARACTER SET utf8 ;

USE `HW2` ;

-- ---

-- Table `HW2`.`Customer Info`

-- ---

DROP TABLE IF EXISTS `HW2`.`Customer Info` ;

```
CREATE TABLE IF NOT EXISTS `HW2`.`Customer Info` (

 `Customer ID` INT NOT NULL AUTO_INCREMENT,

 `Name` VARCHAR(45) NULL,

 `Address` VARCHAR(45) NULL,

 PRIMARY KEY (`Customer ID`),

 UNIQUE INDEX `Customer_ID_UNIQUE` (`Customer ID` ASC) VISIBLE)

ENGINE = InnoDB;




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

-- Table `HW2`.`Customer Invoice`

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

DROP TABLE IF EXISTS `HW2`.`Customer Invoice` ;


CREATE TABLE IF NOT EXISTS `HW2`.`Customer Invoice` (

 `Invoice No.` INT NOT NULL AUTO_INCREMENT,

 `Invoice Date` DATE NULL,

 `Customer ID` INT NOT NULL,

 `Invoice Total` INT NULL,

 PRIMARY KEY (`Invoice No.`),

 INDEX `Customer_ID_idx` (`Customer ID` ASC) VISIBLE,

 UNIQUE INDEX `Invoice_Number_UNIQUE` (`Invoice No.` ASC) VISIBLE,

 CONSTRAINT `Customer_ID`

  FOREIGN KEY (`Customer ID`)

  REFERENCES `HW2`.`Customer Info` (`Customer ID`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION)
```

```
ENGINE = InnoDB;




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

-- Table `HW2`.`Product Details`

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

DROP TABLE IF EXISTS `HW2`.`Product Details` ;


CREATE TABLE IF NOT EXISTS `HW2`.`Product Details` (

 `Product No.` INT NOT NULL AUTO_INCREMENT,

 `Description` VARCHAR(45) NULL,

 `Std. Price` FLOAT NULL,

 PRIMARY KEY (`Product No.`),

 UNIQUE INDEX `Product_Number_UNIQUE` (`Product No.` ASC) VISIBLE)

ENGINE = InnoDB;




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

-- Table `HW2`.`Product Invoice`

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

DROP TABLE IF EXISTS `HW2`.`Product Invoice` ;


CREATE TABLE IF NOT EXISTS `HW2`.`Product Invoice` (

 `Invoice No.` INT NOT NULL,

 `Disc. Code` VARCHAR(45) NULL,

 `Disc. Price` FLOAT NULL,

 `Quantity` INT NULL,
```

```
`Price` FLOAT NULL,

`Product Details_Product No.` INT NOT NULL,

PRIMARY KEY (`Invoice No.`),

INDEX `Invoice_Number_idx` (`Invoice No.` ASC) VISIBLE,

INDEX `fk_Product Invoice_Product Details1_idx` (`Product Details_Product No.` ASC) VISIBLE,

CONSTRAINT `Invoice_Number`

  FOREIGN KEY (`Invoice No.`)

  REFERENCES `HW2`.`Customer Invoice` (`Invoice No.`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION,

 CONSTRAINT `fk_Product Invoice_Product Details1`

  FOREIGN KEY (`Product Details_Product No.`)

  REFERENCES `HW2`.`Product Details` (`Product No.`)

  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;
```