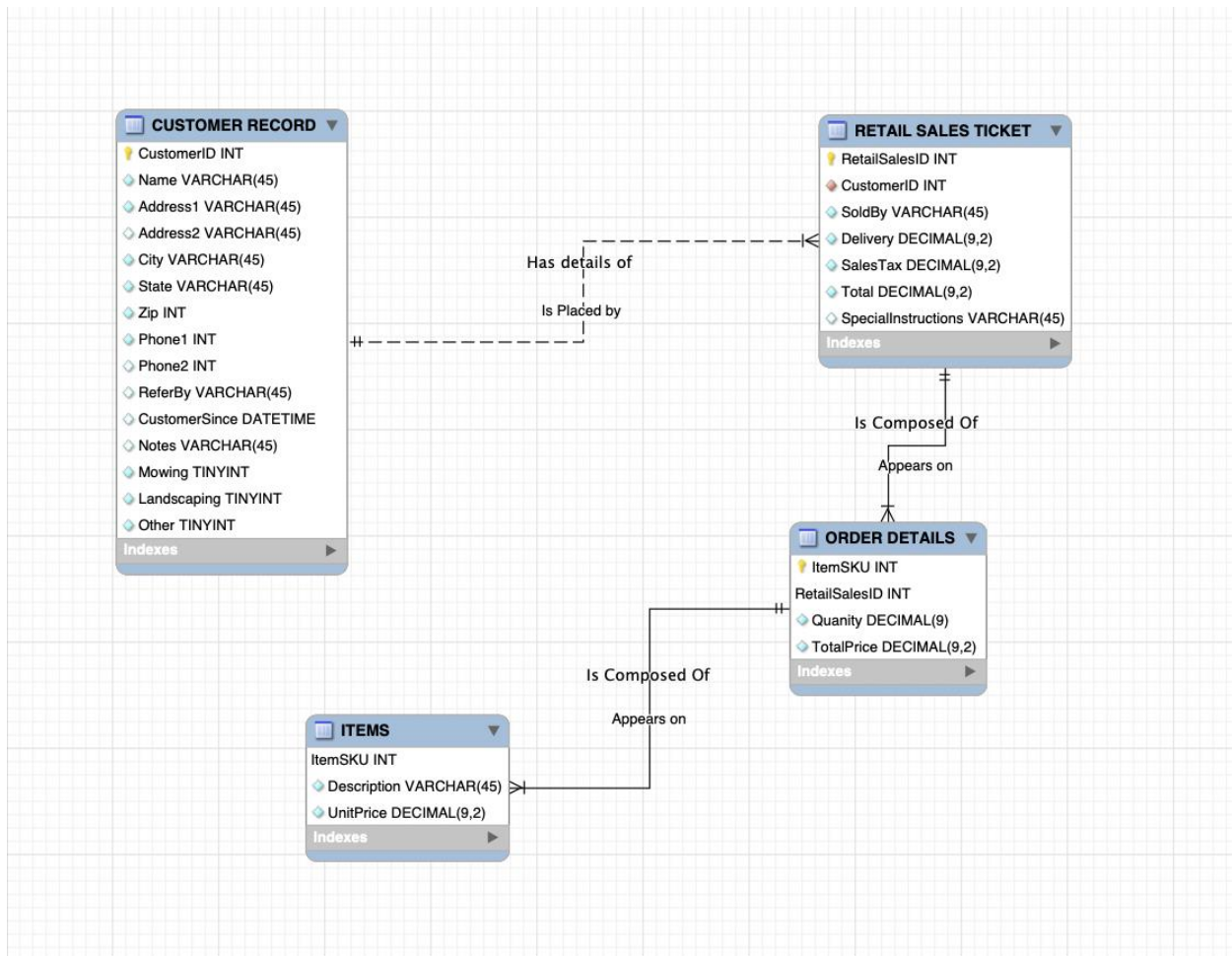


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## Data Model



## DDL

```
-- MySQL Script generated by MySQL Workbench
-- Sun Feb 14 18:27:49 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';
```

```
-- -----  
-- Schema mydb  
-- -----
```

```
-- -----  
-- Schema mydb  
-- -----
```

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

```
-- -----  
-- Table `mydb`.`CUSTOMER RECORD`  
-- -----
```

```
DROP TABLE IF EXISTS `mydb`.`CUSTOMER RECORD` ;
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`CUSTOMER RECORD` (  
  `CustomerID` INT NOT NULL AUTO_INCREMENT,  
  `Name` VARCHAR(45) NOT NULL,  
  `Address1` VARCHAR(45) NOT NULL,  
  `Address2` VARCHAR(45) NULL,  
  `City` VARCHAR(45) NOT NULL,  
  `State` VARCHAR(45) NOT NULL,  
  `Zip` INT NOT NULL,  
  `Phone1` INT NOT NULL,  
  `Phone2` INT NULL,  
  `ReferBy` VARCHAR(45) NULL,  
  `CustomerSince` DATETIME NULL,  
  `Notes` VARCHAR(45) NULL,  
  `Mowing` TINYINT NOT NULL,  
  `Landscaping` TINYINT NOT NULL,  
  `Other` TINYINT NOT NULL,  
  PRIMARY KEY (`CustomerID`))  
ENGINE = InnoDB;
```

```
-- -----  
-- Table `mydb`.`RETAIL SALES TICKET`  
-- -----
```

```
DROP TABLE IF EXISTS `mydb`.`RETAIL SALES TICKET` ;
```

```

CREATE TABLE IF NOT EXISTS `mydb`.`RETAIL SALES TICKET` (
  `RetailSalesID` INT NOT NULL AUTO_INCREMENT,
  `CustomerID` INT NOT NULL,
  `SoldBy` VARCHAR(45) NOT NULL,
  `Delivery` DECIMAL(9,2) NOT NULL,
  `SalesTax` DECIMAL(9,2) NOT NULL,
  `Total` DECIMAL(9,2) NOT NULL,
  `SpecialInstructions` VARCHAR(45) NULL,
  PRIMARY KEY (`RetailSalesID`),
  CONSTRAINT `fk_RETAIL SALES TICKET_CUSTOMER RECORD`
    FOREIGN KEY (`CustomerID`)
      REFERENCES `mydb`.`CUSTOMER RECORD` (`CustomerID`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

CREATE INDEX `fk_RETAIL SALES TICKET_CUSTOMER RECORD_idx` ON `mydb`.`RETAIL
SALES TICKET` (`CustomerID` ASC) VISIBLE;

```

```

-----
-- Table `mydb`.`ORDER DETAILS`
-----

```

```

DROP TABLE IF EXISTS `mydb`.`ORDER DETAILS` ;

```

```

CREATE TABLE IF NOT EXISTS `mydb`.`ORDER DETAILS` (
  `ItemSKU` INT NOT NULL,
  `RetailSalesID` INT NOT NULL,
  `Quantity` DECIMAL(9) NULL,
  `TotalPrice` DECIMAL(9,2) NULL,
  `RETAIL SALES TICKET_RetailSalesID` INT NOT NULL,
  PRIMARY KEY (`ItemSKU`, `RetailSalesID`, `RETAIL SALES TICKET_RetailSalesID`),
  CONSTRAINT `fk_ORDER DETAILS_RETAIL SALES TICKET1`
    FOREIGN KEY (`RetailSalesID`)
      REFERENCES `mydb`.`RETAIL SALES TICKET` (`RetailSalesID`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION)
ENGINE = InnoDB;

```

```

CREATE INDEX `fk_ORDER DETAILS_RETAIL SALES TICKET1_idx` ON `mydb`.`ORDER
DETAILS` (`RetailSalesID` ASC) VISIBLE;

```

```

-----

```

-- Table `mydb`.`ITEMS`

-----  
DROP TABLE IF EXISTS `mydb`.`ITEMS` ;

```
CREATE TABLE IF NOT EXISTS `mydb`.`ITEMS` (  
  `ItemSKU` INT NOT NULL AUTO_INCREMENT,  
  `Description` VARCHAR(45) NOT NULL,  
  `UnitPrice` DECIMAL(9,2) NOT NULL,  
  PRIMARY KEY (`ItemSKU`),  
  CONSTRAINT `fk_ITEMS_ORDER DETAILS1`  
    FOREIGN KEY (`ItemSKU`)  
      REFERENCES `mydb`.`ORDER DETAILS` (`ItemSKU`)  
    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;
```

## **Assumptions**

My list of Surrogate Keys:

1. **CustomerID**, this key was made to uniquely identify the customer. This is because there was no other option that could uniquely identify the customer. It is also auto-incremented.
2. **RetailSalesID**, this key was made to uniquely identify the retail sale. This is because there was no other option that could uniquely identify the customer. It is also auto-incremented.

Other notes:

1. Under the **ORDER DETAILS** table, there is a composite key that consists of ItemSKU and RetailSalesID. RetailSalesID does not have a key symbol in front of it, my assumption is that MySQL got buggy and therefore I am not able to obtain the key symbol.
2. Under the **ITEMS** table, ItemsSKU should have a key symbol in front, MySQLworkbench got rid of it for some reason and I cannot get that symbol to appear again.