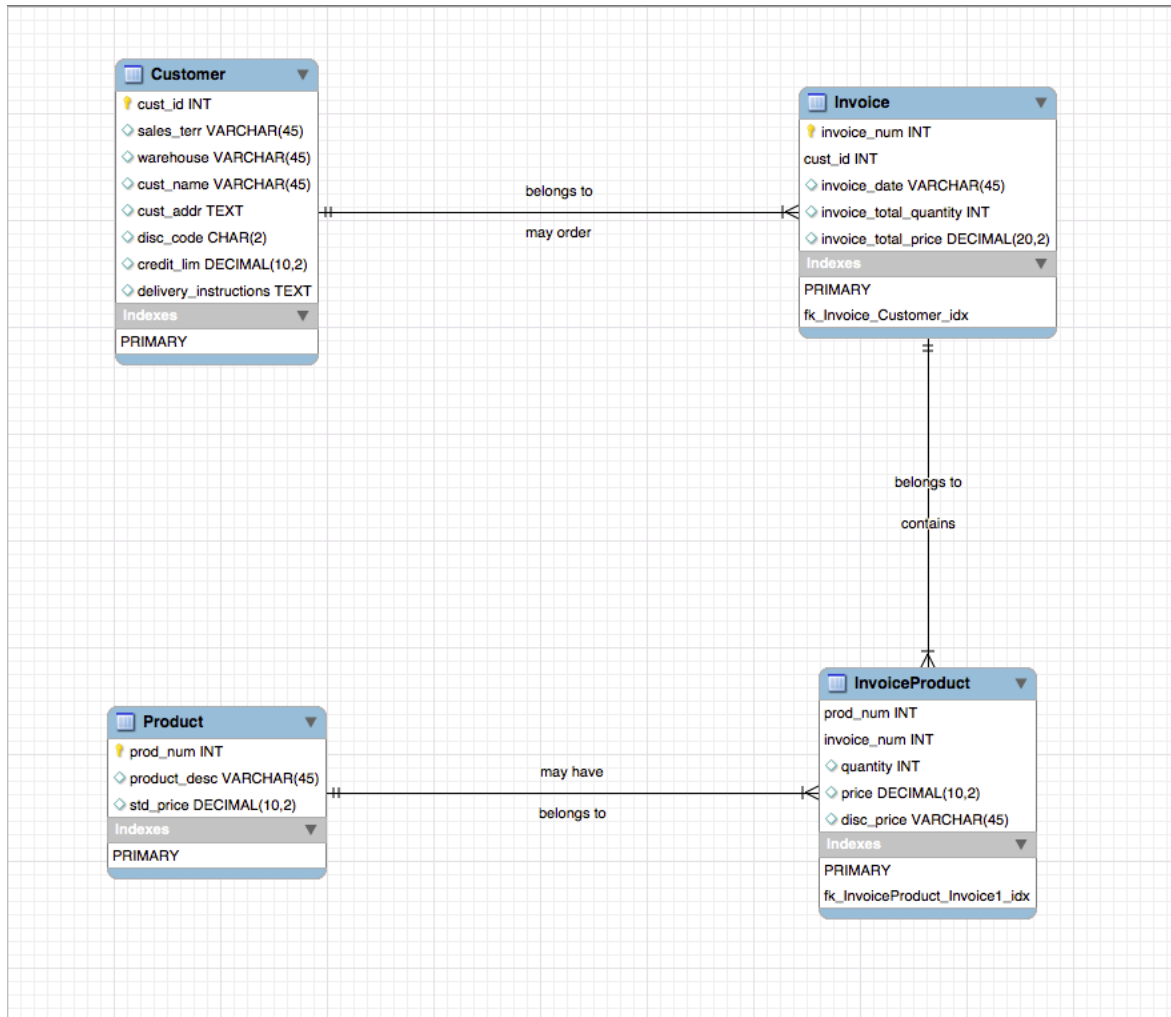


James Gallmeister  
HW2: Data Modeling

Picture of Database Model:



In this model, the `Invoice` and `InvoiceProduct` table have foreign keys.

- The `Invoice` table has a foreign key of `cust\_id`.
- The `InvoiceProduct` table has a foreign key of `invoice\_num`.

Pictures of DDL produced from above model, bar any statements I didn't understand which were removed:

```
hw2.sql
1  -- MySQL Script generated by MySQL Workbench
2  -- Thu Oct 11 16:57:04 2018
3  -- Model: New Model    Version: 1.0
4  -- MySQL Workbench Forward Engineering
5
6  -- Schema mydb
7
8  CREATE SCHEMA IF NOT EXISTS `mydb` DEFAULT CHARACTER SET utf8 ;
9  USE `mydb` ;
10
11
12  -- Table `mydb`.`Product`
13
14  CREATE TABLE IF NOT EXISTS `mydb`.`Product` (
15    `prod_num` INT NOT NULL,
16    `product_desc` VARCHAR(45) NULL,
17    `std_price` DECIMAL(10,2) NULL,
18    PRIMARY KEY (`prod_num`))
19  ENGINE = InnoDB;
20
21
22
23  -- Table `mydb`.`Customer`
24
25  CREATE TABLE IF NOT EXISTS `mydb`.`Customer` (
26    `cust_id` INT NOT NULL,
27    `sales_terr` VARCHAR(45) NULL,
28    `warehouse` VARCHAR(45) NULL,
29    `cust_name` VARCHAR(45) NULL,
30    `cust_addr` TEXT NULL,
31    `disc_code` CHAR(2) NULL,
32    `credit_lim` DECIMAL(10,2) NULL,
33    `delivery_instructions` TEXT NULL,
34    PRIMARY KEY (`cust_id`))
35  ENGINE = InnoDB;
36
37
38
39  -- Table `mydb`.`Invoice`
40
41  CREATE TABLE IF NOT EXISTS `mydb`.`Invoice` (
42    `invoice_num` INT NOT NULL,
43    `cust_id` INT NOT NULL,
44    `invoice_date` VARCHAR(45) NULL,
45    `invoice_total_quantity` INT NULL,
46    `invoice_total_price` DECIMAL(20,2) NULL,
47    PRIMARY KEY (`invoice_num`, `cust_id`),
48    INDEX `fk_Invoice_Customer_idx` (`cust_id` ASC) VISIBLE,
49    CONSTRAINT `fk_Invoice_Customer`
50      FOREIGN KEY (`cust_id`)
51      REFERENCES `mydb`.`Customer` (`cust_id`)
52      ON DELETE NO ACTION
53      ON UPDATE NO ACTION)
54  ENGINE = InnoDB;
55
56
57
58  -- Table `mydb`.`InvoiceProduct`
59
60  CREATE TABLE IF NOT EXISTS `mydb`.`InvoiceProduct` (
61    `prod_num` INT NOT NULL,
62    `invoice_num` INT NOT NULL,
63    `quantity` INT NULL,
64    `price` DECIMAL(10,2) NULL,
65    `disc_price` VARCHAR(45) NULL,
66    PRIMARY KEY (`prod_num`, `invoice_num`),
67    INDEX `fk_InvoiceProduct_Invoice1_idx` (`invoice_num` ASC) VISIBLE,
68    CONSTRAINT `fk_InvoiceProduct_Product1`
69      FOREIGN KEY (`prod_num`)
70      REFERENCES `mydb`.`Product` (`prod_num`)
71      ON DELETE NO ACTION
72      ON UPDATE NO ACTION,
73    CONSTRAINT `fk_InvoiceProduct_Invoice1`
74      FOREIGN KEY (`invoice_num`)
75      REFERENCES `mydb`.`Invoice` (`invoice_num`)
76      ON DELETE NO ACTION
77      ON UPDATE NO ACTION)
78  ENGINE = InnoDB;
```