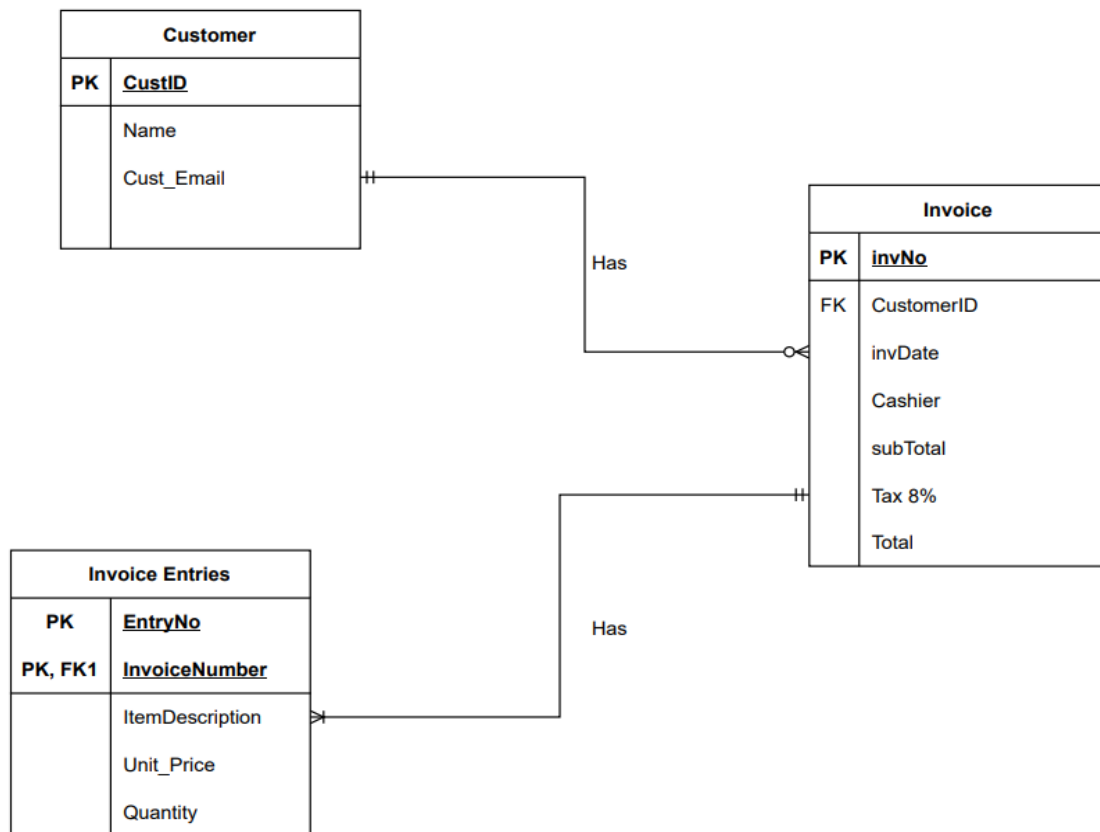


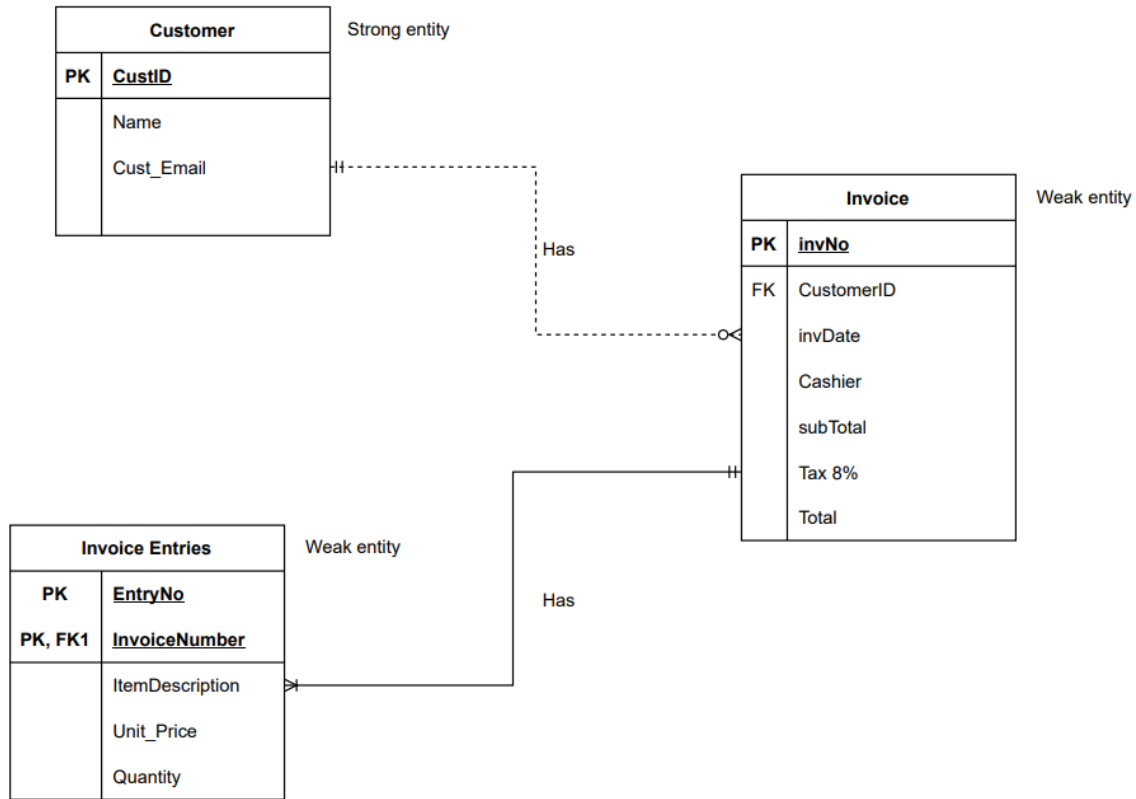
Assignment #2

Task 1

- i) The best primary keys for each table would be: Customer table – CustID, Invoice Table – invNo, Invoice Entries Table – InvoiceNumber, EntryNo
- ii) In the Invoice Entries table, the column ‘InvoiceNumber’ would be used as the foreign key. In the Invoice table, the column ‘CustomerID’ would be used as the foreign key.
- iii)



- iv) See next page for ERD showing strong/weak entities and identifying/non-identifying relationships



Task 2

i)

```

1 • CREATE DATABASE IF NOT EXISTS Assignment2;
2
-

```

ii)

```

2 • USE Assignment2;
3
4 • /*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
5
6 • DROP TABLE IF EXISTS Customer;
7
8 • CREATE TABLE Customer (
9     CustID int NOT NULL,
10    Name text NOT NULL,
11    Cust_Email text NOT NULL,
12    PRIMARY KEY(CustID)
13 );

```

```

15 • DROP TABLE IF EXISTS Invoice;
16
17 • CREATE TABLE Invoice (
18     invNo int NOT NULL,
19     CustomerID int DEFAULT NULL,
20     invDate date NOT NULL,
21     Cashier text NOT NULL,
22     subTotal decimal(10,3) NOT NULL,
23     Tax8 decimal(10,3) NOT NULL,
24     Total decimal(10,3) NOT NULL,
25     PRIMARY KEY(invNo),
26     CONSTRAINT fk_customer_invoice FOREIGN KEY (CustomerID) REFERENCES customer (CustID)
27 );
28
29 • DROP TABLE IF EXISTS InvoiceEntries;
30
31 • CREATE TABLE InvoiceEntries (
32     InvoiceNumber int NOT NULL,
33     EntryNo int NOT NULL,
34     ItemDescription text NOT NULL,
35     Unit_Price decimal(10,3) NOT NULL,
36     Quantity decimal(10,3) NOT NULL,
37     PRIMARY KEY(EntryNo, InvoiceNumber),
38     KEY fk_invoice_invoiceentries (InvoiceNumber),
39     CONSTRAINT fk_invoice_invoiceentries FOREIGN KEY (InvoiceNumber) REFERENCES invoice (invNo)
40 );
41

```

iii) FKs added in previous screenshots

Task 3

```

42 • INSERT INTO customer VALUES(33, 'Rianon Bursnall', 'rbursnall19@homestead.com');
43 • INSERT INTO customer VALUES(47, 'Deck Hearnes', 'dhearnes1a@g.com');
44 • INSERT INTO customer VALUES(222, 'Vittorio Anderson', 'vanderson@omniture.com');
45 • INSERT INTO customer VALUES(234, 'Land Tregenna', 'ltregenna1c@msu.edu');
46
47 • INSERT INTO invoice VALUES(2, 33, '2020-02-25', 'John', 120.49, 9.639, 130.129);
48 • INSERT INTO invoice VALUES(6, 33, '2021-03-12', 'Alice', 310, 24.8, 334.8);
49 • INSERT INTO invoice VALUES(19, 222, '2020-02-25', 'John', 57.99, 4.639, 62.629);
50
51 • INSERT INTO invoiceentries VALUES(2, 1, 'Groceary #2232', 7.99, 1);
52 • INSERT INTO invoiceentries VALUES(2, 2, 'Frozen Foods #0232', 18.75, 2);
53 • INSERT INTO invoiceentries VALUES(2, 3, 'Meat product #1125', 25, 3);
54 • INSERT INTO invoiceentries VALUES(6, 1, 'TV Model #9922', 310, 1);
55 • INSERT INTO invoiceentries VALUES(19, 1, 'Meat product #1125', 25, 2);
56 • INSERT INTO invoiceentries VALUES(19, 2, 'Groceary #2232', 7.99, 1);
57

```

Task 4 (Extra Credit)

```
58 • SELECT CustID, Name, invNo, invDate, Cashier, subTotal, Tax8, Total
59     FROM customer c, invoice i
60     WHERE c.CustID = i.CustomerID;
61
62 • /*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
63
```