/\*UPDATED CREATE SQL DATABASE\*/

/\*Creates an Author table\*/

CREATE TABLE AUTHOR(

author\_id int not null PRIMARY KEY,

author\_firstname varchar(50) not null,

author\_lastname varchar(50) not null

);

/\*Creates a Publisher table\*/

CREATE TABLE PUBLISHER(

publisher\_id int not null PRIMARY KEY,

name varchar(50) not null,

street varchar(50) not null,

zip int(5) not null,

phone int(9) not null,

FOREIGN KEY (zip) REFERENCES Zipcode(zipcode)

);

/\*Creates a Customer table\*/

CREATE TABLE CUSTOMER(

customer\_id int not null PRIMARY KEY,

customer\_firstname varchar(255) not null,

customer\_lastname varchar(255) not null,

customer\_email varchar(255) not null,

customer\_phone int(9) not null,

customer\_street varchar(50) not null,

customer\_zip int(5) not null,

FOREIGN KEY (customer\_zip) REFERENCES Zipcode(zipcode)

);

/\*Creates a Warehouse table\*/

CREATE TABLE WAREHOUSE(

warehouse\_id int not null PRIMARY KEY,

w\_name varchar(200) not null,

w\_street varchar(200) not null,

w\_zip int(5) not null,

FOREIGN KEY (w\_zip) REFERENCES Zipcode(zipcode)

);

/\*Creates a Book table\*/

CREATE TABLE BOOKS(

ISBN int not null PRIMARY KEY,

title varchar(255) not null,

author\_id int not null,

publisher\_id int not null,

year\_published int(4) not null,

price DECIMAL(4,2) not null,

category varchar(255) not null,

edition int not null,

FOREIGN KEY (author\_id) REFERENCES Author(author\_id),

FOREIGN KEY (publisher\_id) REFERENCES Publisher(publisher\_id)

);

/\*Creates a Book table indexes\*/

CREATE INDEX author\_index on books (author\_id);

CREATE INDEX publisher\_index on books (publisher\_id);

/\*Creates an Orders table\*/

CREATE TABLE ORDERS(

order\_id int not null PRIMARY KEY,

order\_customer\_id int not null,

order\_ISBN int not null,

order\_date date not null,

FOREIGN KEY (order\_customer\_id) REFERENCES customer(customer\_id),

FOREIGN KEY (order\_ISBN) REFERENCES books(ISBN)

);

/\*Create Orders table index\*/

CREATE INDEX customer\_index on orders (order\_customer\_id);

/\*Creates a BookAuthor table\*/

CREATE TABLE BOOKAUTHOR(

ISBN int not null,

author\_id int not null,

PRIMARY KEY (ISBN, author\_id)

FOREIGN KEY (ISBN) REFERENCES Books(ISBN),

FOREIGN KEY (author\_id) REFERENCES Author(author\_id)

);

/\*Creates an OrderWarehouse table\*/

CREATE TABLE ORDERWAREHOUSE(

order\_id int not null,

warehouse\_id int not null,

PRIMARY KEY (order\_id, warehouse\_id),

FOREIGN KEY (order\_id) REFERENCES Orders(order\_id),

FOREIGN KEY (warehouse\_id) REFERENCES Warehouse(warehouse\_id)

);

/\*Creates an OrderBook table\*/

CREATE TABLE ORDERBOOK(

order\_id int not null,

ISBN int not null,

order\_quantity int not null,

PRIMARY KEY (order\_id, ISBN),

FOREIGN KEY (order\_id) REFERENCES Orders(order\_id),

FOREIGN KEY (ISBN) REFERENCES Books(ISBN)

);

/\*Creates an WarehouseBook table\*/

CREATE TABLE WAREHOUSEBOOK(

warehouse\_id int not null,

ISBN int not null,

quantity int not null,

PRIMARY KEY (ISBN, warehouse\_id),

FOREIGN KEY (warehouse\_id) REFERENCES Warehouse(warehouse\_id),

FOREIGN KEY (ISBN) REFERENCES Books(ISBN)

);

/\*Creates a ZipCode table\*/

CREATE TABLE ZIPCODE(

zipcode int(5) not null,

city varchar(255) not null,

state varchar(255) not null,

PRIMARY KEY (zipcode)

);

/\*Creates the View BooksSold\*/

CREATE VIEW BOOKSOLD AS

SELECT ISBN, count(\*) as number\_sold

FROM Books as B, Orders as O

WHERE O.order\_ISBN = B.ISBN

GROUP BY ISBN;

/\*Creates the View CustomerSpend\*/

CREATE VIEW CUSTOMERSPEND AS

SELECT C.customer\_id, sum(OB.order\_quantity) as number\_books\_bought, sum(B.price \* OB.order\_quantity) as money\_spent

FROM Customer as C, Books as B, Orders as O, OrderBook as OB

WHERE C.customer\_ID = O.order\_customer\_id

AND OB.order\_id = o.order\_id

AND O.order\_ISBN = B.ISBN

GROUP BY C.customer\_id;