Answers
Adding Constraints to Tables

1. Add primary key constraints, called supplier_pk, product_pk and stock_qty_pk to the three tables.

```
ALTER TABLE supplier
ADD CONSTRAINT supplier_pk  PRIMARY KEY (supplier_no);

ALTER TABLE product
ADD CONSTRAINT product_pk  PRIMARY KEY (stock_no);

ALTER TABLE stock_qty
ADD CONSTRAINT stock_qty_pk  PRIMARY KEY (supplier_no,
stock_no);
```

2. Add foreign key constraints, called sq_fk1 and sq_fk2 to the stock_qty table

```
ALTER TABLE stock_qty
ADD CONSTRAINT sq_fk1
FOREIGN KEY (supplier_no ) REFERENCES supplier( supplier_no );

ALTER TABLE stock_qty
ADD CONSTRAINT sq_fk2
FOREIGN KEY (stock_no ) REFERENCES product( stock_no );
```

3. Add a NOT NULL constraint on the supplier_name column of the supplier table.

```
ALTER TABLE supplier
MODIFY supplier_name NOT NULL;
```

4. Add a Check constraint called supp_discount_check on the discount column of the supplier table, not allowing discounts of over 25%. Test it by trying to insert a new record which has a discount of 30%.

```
ALTER TABLE supplier
ADD CONSTRAINT supp_discount_check  CHECK (discount <= 25 );
```

5. Alter the foreign key constraint and add a delete cascade function so that if a product is deleted all entries in the stock quantity table are also deleted. Test it by deleting one of the product records.

```
ALTER TABLE stock_qty
ADD CONSTRAINT sq_fk2
FOREIGN KEY ( stock_no ) REFERENCES product( stock_no )
ON DELETE CASCADE;
```

6. Add a default integrity constraint so when a record is added to the stock quantity table, if no quantity is given, it defaults to 1. Test it by adding a record to the table which does not have a quantity value.

```
ALTER TABLE stock_qty
MODIFY Quantity DEFAULT 1;
```

7. Display all the integrity constraints you have created, showing the table_name, constraint_name and constraint_type.

```
SELECT constraint_name, constraint_type, table_name
FROM user_constraints;
```