1. **Chapter 5 (focus primarily on Sections 5.1–5.2)**
   1. **Who invented the relational data model? When and where did they do their work?**Ted Codd. IBM. 1970.
   2. **Explain the following terms:**
      1. ***Relation :*** *a table of attributes and values*
      2. ***Attribute :*** Column header
      3. ***Domain :*** possible values in column
      4. ***N-tuple :*** ordered list of n values. record/tuple.
      5. ***NULL* value :** values which are used to represent the values of attributes that may be unknown or may not apply to a tuple.
      6. ***primary*, *foreign*, *candidate* and *super* keys : primary-**key for relation it is in. only on key. **candidate-** if more than one key **super keys-** similar to candidate but the minimum amount of keys that uniquely identify each row.
      7. ***referenced* and *referencing* records : referenced-** record that is has id pointing to it from another one. **Referencing-** having id pointing to other record.
   3. **Are tuples in a relation ordered? How about attribute values in a tuple? Explain why or why not.  
      Tuples in a relation:** Not ordered. Elements in a set do not have order among them and there is no reason to have them ordered.  
      **Attribute Values in a tuple:** Ordered. In order to match values with an attribute they are ordered.
   4. **Can attributes have multiple values in a single n-tuple? Why or why not?**No, because there is only a certain amount of allocated space for each value.
2. **Chapter 6 (focus primarily on Sections 6.1–6.2 & 6.4) — Make sure that you know how to:**
   1. **Create tables with specified constraints, including primary/foreign key, not-null, domain and value-check constraints.**CREATE TABLE COMPANY.EMPLOYEE  
      (  
      Employee\_id int PRIMARY\_KEY,  
      Boss\_id int FOREIGN\_KEY,  
      Kris int CHECK (Kris > 4)  
      )
   2. **Use the DML commands: INSERT, DELETE and UPDATE.**INSERT INTO CUSTOMERS VALUES (5, 3, 4);  
      DELETE FROM CUSTOMERS WHERE ID = 8;  
      UPDATE CUSTOMERS SET PHONE = 61645423454 WHERE ID = 3;
   3. **Distinguish the ON DELETE actions: SET NULL; CASCADE.  
      SET NULL:** Value of the affected referencing attributes is changed to NULL.  
      **CASCADE:** Delete all referencing tuples.