1.
   a. Explain the following terms in the context of the relational data model
      I. Relation- a set of tuples where each element is a member of a data domain
      II. Attribute- a characteristic of database component, the column of relation
      III. Domain- the set of allowed values for each attribute
      IV. Tuple- the rows of a relation, has one component for each attribute of the relation
      V. Degree- number of attributes a relation contains
      VI. Cardinality- number of tuples a relation contains

   b. Use Employee-Department database from appendix 1 to provide examples of each term
      I. Relation- EMP and Dept are relations
      II. Attribute- EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO
      III. Domain- INT, VARCHAR, DATE
      IV. Tuple- (7369, SMITH, CLERK, 7902, 1980-12-17, 800, 20)
      V. Degree- The degree of EMP is 8
      VI. Cardinality- The cardinality of EMP is 14
2.
   a. Explain the following terms in the context of the relational data model.
      ▪Candidate Key- A key is a candidate key if it is a super key and minimal. If K is a subset of R, then K is a superkey of R if values for K are sufficient to identify a unique tuple of each possible relation r(R). And if it's minimal, that means that the tuple can't be broken into smaller pieces and still be unique.
      ▪Primary Key- is a candidate key that's been chosen to be the principle means of identifying tuples in a relation. It's the "lucky" candidate key
      ▪Foreign Key- A relations attribute that corresponds to the primary key of another relation.

   b. Use the Employee-Department database from appendix 1 to provide examples of each term.
      - Candidate key- (EMPNO), (ENAME, JOB), (DEPTNO) in DEPT
      - Primary key - (EMPNO) and (DEPTNO)
      - Foreign key- DEPTNO is a foreign key to DEPTNO