DBMS ASSIGNMENT 1

MANAN WASON

2013056

1. Foreign keys : SSN,Trip\_ID, Dept\_No

Assumption:- Dept\_No if Department table exists

1. Various Candidate keys : Univ\_section#, Course#, (Semester & Building\_code & Room# & Time\_period & Weekdays)

CAR(Serial no, Model,Manufacturer,Price)

OPTION(Serial no, Option name, price)

SALE(Salesperson id,Serial No,Date,Sale\_price)

SALESPERSON(Salesperson id,Name,Phone)

Foreign Keys :-

1. The attribute Serial\_no of relation OPTION that references relation CAR

2. The attribute Salesperson\_id of relation SALE that references relation

SALESPERSON

3. The attribute Serial\_no of relation SALE that references relation CAR

* 1. No violations
  2. Violates Referential Integrity constraint because Dnumber = 2 and there is no entry in the Department relation with Dnumber =2. To enforce constraint:
     1. change value of Dnumber to something that is present in the Department table
     2. Insert this Dnumber value in Department table
     3. Reject new tuple
  3. Violates key constraint and referential integrity constraint because Dnumber = 4 already exists in DEPARTMENT table and referential integrity because Mgr\_ssn='943775543' and there is no tuple in the EMPLOYEE relation with Ssn='943775543'.To enforce constraints:

(i) reject insertion

(ii)Change value of Dnumber

(iii)change value of Mgr\_ssn to an existing SSn in EMPLOYEE table

(iv)Insert new EMPLOYEE with given SSN

* 1. Violates Entity integrity and referential integrity constraints because Pno(Primary) is “NULL” and the Essn number is not present in the EMPLOYEE relation table, so to enforce: (i)We can reject (ii) Add employee with Essn (iii)Give a Pno value
  2. No Violations
  3. No Violations
  4. Violates Referential integrity constraint as the Employee tuple with SSN = ‘9876654321’ is being referred to various other relations such as DEPENDENT,DEPARTMENT etc. To enforce constraint:
     1. Reject deleteion
     2. Delete it from every relation
  5. Violates Referential integrity constraint as Tuple being deleted is referenced in the WORKS\_ON relation. To enforce constraint:
     1. rejected deletion
     2. Delete it from the WORKS\_ON relation as well
  6. No violations
  7. Violates referential integrity constraint as there is no tuple with the SSN value = ‘943775543’ in the EMPLOYEE relation and so this value can’t take act as a superSSN value.To enforce constraint:
     1. reject modification
     2. add new Employee with the SSN value
  8. No violations

5) Author:- name, address

publisher:- name

book:- ISBN

customer:- email

shopping\_basket:-Baket\_ID

warehouse:- code