

## Assignment – 1

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- 1)
  - a. Explanation: Supervisor  
It violates the Domain Constraint as the BDATE is date and “Supervisor” is not a date.
  - b. Actions:  
Inserting a valid date format or null in BDATE.
  - a. Explanation: '333445555'  
the SSN should be a unique number but given number '333445555' already exists in the database on the name of Franklin T wong.
  - b. Actions: Change the value of SSN '333445555' that need to be inserted. Or Modify the SSN of existing tuple. As the data already exists.
  - a. Explanation: 3  
The value here mentioned is DNo which is related Department number. The value 3 does not exists in DNumber in table given.
  - b. Actions: insert a new department number 3 or add the existing department number so that the tuple can be inserted to a value already existing DNumber in DEPARTMENT
- 2)

No Constraints are violated.
- 3)
  - a. Explanation: PNAME ='Computerization' has a PNUMBER =10 which is linked to WORKS\_ON. These PNUMBER tuple refers to WORKS\_ON tuple that being deleted.
  - b. Actions: Update the tuples that has PNO=10 in Works\_On table to other project number and then delete
- 4)

Nothing is Violated.
- 5)
  - a. Explanation: the key Constrains of SSN is newly updating Tuple which is SSN for already existing member.
  - b. action: Change the SSN of newly updating tuple to the number which is not present in the table.
  - a. Explanation: It refers to Integrity constraint violations where SSN cannot be updated, and it can be referred to other tables as MGRSSN in DEPARTMENT like a foreign key.
  - b. Action: Update of SSN of the tuple in DEPARTMENT that refers to the tuple that is being updated or modify the MGRSSN.
- 6)
  - a. Explanation: it refers to integrity constraint where it violates the ESSN in WORKS\_ON which is foreign key that calls to the primary key SSN of EMPLOYEE.
  - b. Actions: Updating of SSN by Updating the tuples in WORKS\_ON that reference the tuple that is being updated or modify the ESSN.