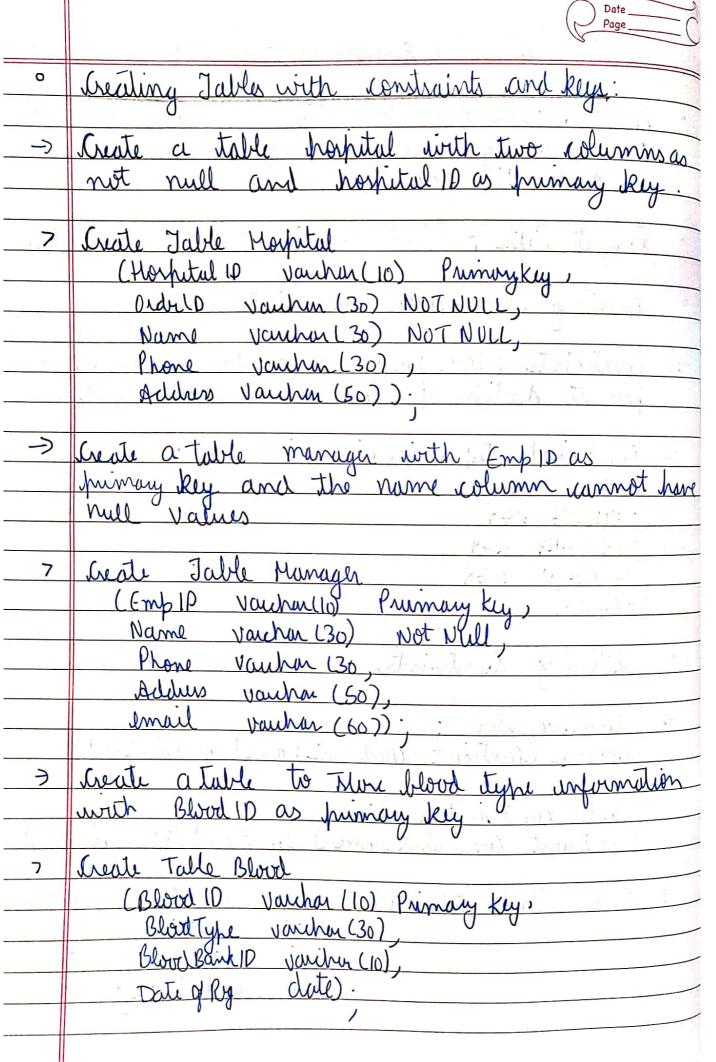
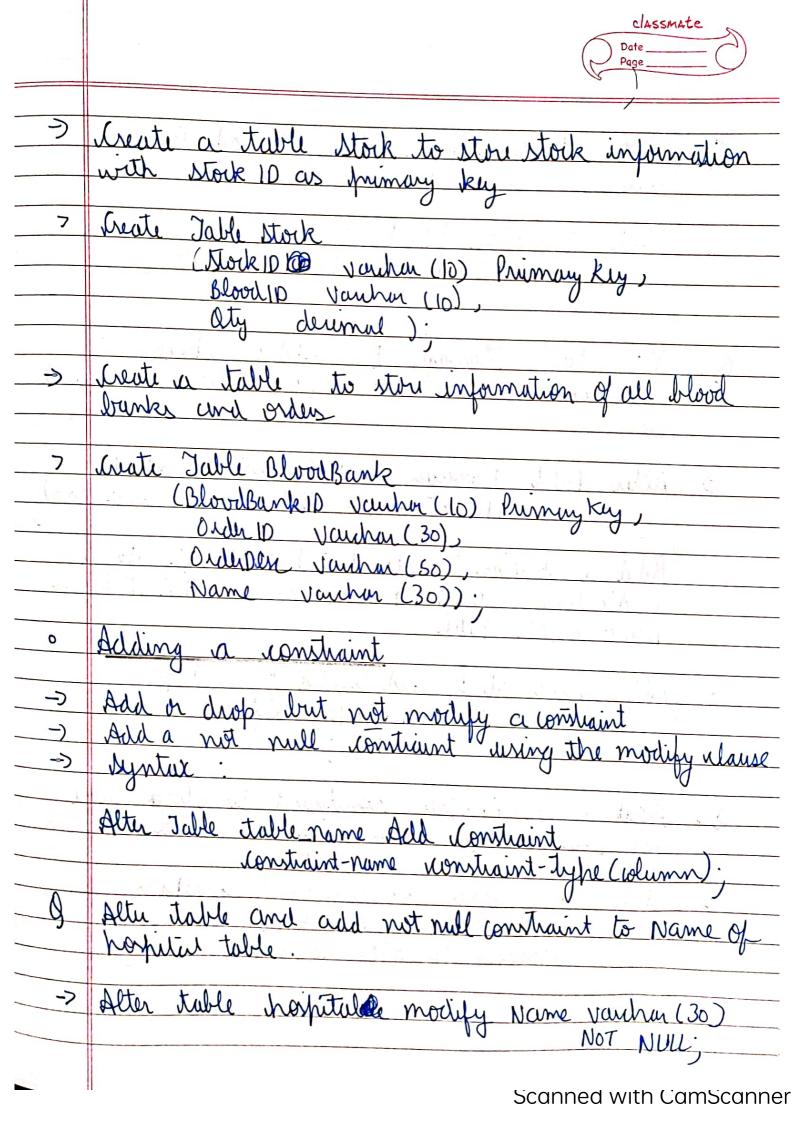
pr.	classmate
20 2 22	Data Defination danguage - Project
	Aim - To use data defination language to create tables, apply keys and required constraints for blood donation database
	blood donation database
0	Project Title - Blood Donation Management System.
0	Creating Tables with Constraints
	7
ラ	Constraints enforce rules at the table level. They
	Constraints enforce rules at the table level. They prevent deletion of a table if there are dependencies.
-)	Constraint types available in Oracle:
	- NOT NULL - AVAILABLE AND AND AND
	- UNIQUE KEY
	- PRIMARY KEY
	-FOREIGN KEY MONANT SEET STANK
ł.	- CHECK (Lie Fermine) Political (Grand)
0	Defining Constraints
2 1	(32) ra Vinere credition
-)	Column level:
	column Constraint constraint hame I constraint type
٦	Table constraint arel:
	[Constraint Constraint name] constraint type (column)
	, V **
7	Create Table table name (column datatype column constrainty
	table_constraint);
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Creating Tables with Constraints and Keys

```
mysql> CREATE TABLE Hospital
    -> (HospitalID varchar(10) PRIMARY KEY,
    -> OrderID varchar(30) NOT NULL,
    -> Name varchar(30) NOT NULL,
    -> Phone varchar(30),
    -> Address varchar(50));
Query OK, 0 rows affected (0.44 sec)
mysql> DESC HOSPITAL
    -> ;
                          | Null | Key | Default | Extra
 Field
              Type
 HospitalID
              varchar(10)
                            NO
                                   PRI
                                         NULL
 OrderID
              varchar(30)
                            NO
                                         NULL
 Name
              varchar(30)
                                         NULL
                            NO
  Phone
              varchar(30)
                            YES
                                         NULL
  Address
              varchar(50)
                            YES
                                         NULL
mysql> CREATE TABLE Manager
    -> (EmpID varchar(10) PRIMARY KEY,
    -> Name varchar(30) NOT NULL,
    -> Phone varchar(30),
    -> Address varchar(50),
    -> email varchar(60));
Query OK, 0 rows affected (1.27 sec)
mysql> DESC MANAGER;
                         Null | Key | Default | Extra
 Field
            Type
  EmpID
            varchar(10)
                          NO
                                  PRI
                                        NULL
 Name
            varchar(30)
                                        NULL
                          NO
  Phone
            varchar(30)
                          YES
                                        NULL
                          YES
          varchar(50)
  Address
                                        NULL
            varchar(60)
  email
                          YES
                                        NULL
5 rows in set (0.12 sec)
```



```
mysql> CREATE TABLE Stock
   -> (StockID varchar(10) PRIMARY KEY,
   -> BloodID VARCHAR(10),
   -> Qty Decimal);
Query OK, 0 rows affected (0.91 sec)
mysal> desc stock
 Field
                          | Null | Key | Default | Extra |
          Type
 StockID
           varchar(10)
                                   PRI
                                         NULL
                            NO
 BloodID
           varchar(10)
                            YES
                                         NULL
          decimal(10,0) | YES
 Qty
                                         NULL
3 rows in set (0.05 sec)
mysql> CREATE TABLE Blood
                    (BloodID varchar(10) PRIMARY KEY,
                     BloodType varchar(30),
                     BloodBankID varchar(10),
                     DateOfReg date);
Query OK, 0 rows affected (6.30 sec)
mysql> desc Blood;
 Field
              Type
                            | Null | Key | Default | Extra |
 BloodID
               varchar(10)
                              NO
                                     PRI
                                           NULL
 BloodType
               varchar(30)
                              YES
                                           NULL
 BloodBankID | varchar(10)
                              YES
                                           NULL
 DateOfReg
              date
                             YES
                                           NULL
 rows in set (0.00 sec)
 mysql> CREATE TABLE BloodBank
                    (BloodBankID varchar(10) PRIMARY KEY,
                     OrderID varchar(30),
             OrderDesc varchar(50),
                     Name varchar(30));
 Query OK, 0 rows affected (0.66 sec)
 mysql> desc BloodBank;
  Field
              Type
                            | Null | Key | Default | Extra |
  BloodBankID |
               varchar(10)
                             NO
                                    PRI
                                          NULL
  OrderID
                varchar(30)
                             YES
                                          NULL
  OrderDesc
               varchar(50)
                             YES
                                          NULL
  Name
               varchar(30) YES
                                          NULL
```



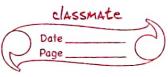
9	Alter table Blood Bank and add linique ley constraint to Order IP
-)	Alter Table Blood Bank Modify Ordnip vanher 110) UNIQUE;
<u>Q</u>	Altu tuble Munagy to add a Wheele constraint to restrict emplo between 1500 and 3000
)	Alter Table Manager Add Constraint emp-de Check (Emp10 between 1500 and 3000).
<u>Q</u>	Add a Foreign key contraint to Block table indicating that Blood D is a Valid 10 from Blood Bank Table.
<u> </u>	Alter Table Stock Add Constraint Blood JR. Foreign Ky (Blood ID) Refuences Blood (Blood ID)
J.	Add a Foreignky constraint to Blood Table for Blood Bank Table
-)	Alter Table Blive Add Constraint BloodBank Jk Foreign Kry (BloodBank 10) References BloodBank (BloodBank 10);
	in the second residency of the second

Altering Table and Adding Constraints

```
mysql> Alter table hospital modify Name varchar(30) NOT NULL;
Query OK, 0 rows affected (0.39 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> DESC HOSPITAL;
                            Null | Key | Default | Extra
 Field
              Type
 HospitalID
              varchar(10)
                             NO
                                    PRI |
                                          NULL
 OrderID
              varchar(30)
                             NO
                                          NULL
              varchar(30)
 Name
                             NO
                                          NULL
              varchar(30)
 Phone
                             YES
                                          NULL
              varchar(50)
 Address
                             YES
                                          NULL
5 rows in set (0.10 sec)
```

```
mysql> ALTER TABLE BLOODBANK MODIFY ORDERID varchar(10) UNIQUE;
Query OK, 0 rows affected (2.82 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> DESC BloodBank;
                             Null | Key | Default | Extra
 Field
               Type
 BloodBankID | varchar(10)
                            NO
                                     PRI
                                          NULL
               varchar(10)
 ORDERID
                                          NULL
                             YES
                                     UNI
               varchar(50)
 OrderDesc
                             YES
                                          NULL
               varchar(30)
 Name
                             YES
                                          NULL
```

```
mysql> Alter table manager add constraint emp_ck CHECK(EmpID BETWEEN 1500 AND 3000);
Query OK, 0 rows affected (4.30 sec)
Records: 0 Duplicates: 0 Warnings: 0
```



0	Dropping Constraints
う	constraints can be dropped from the table
う	Syntax:
	Alter Jable tablename Drop Constraint Constraint-name.
<u>S</u>	Remore the emp ck constraint added to Manager
-)	Alter Table Manager Drop Constraint empck;
0	Disable and bruble Contraint
->	Lacute the Disable clause of the Alter Table statement to deartivate a confusion.
->	Activate a constraint using Enable clause.
Q.	Diable all keys of Blood Bank Table.
)	Alter table Bloodbank disable keys;
Q.	o de la companya de l
-)	Alter table Bloodbank entable keys;
	II

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Adding Foreign Keys

```
mysql> Alter table Stock Add Constraint Blood fk FOREIGN KEY(BloodID) REFERENCES Blood(BloodID);
Query OK, 0 rows affected (4.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> DESC STOCK;
 Field Type
                          | Null | Key | Default | Extra |
 StockID | varchar(10)
BloodID | varchar(10)
                          NO
                                 | PRI |
                                         NULL
                            YES
                                   MUL
                                         NULL
 0ty
          decimal(10,0) YES
                                         NULL
 rows in set (0.06 sec)
mysql> Alter table Blood Add Constraint BloodBank fk FOREIGN KEY(BloodBankID) REFERENCES BloodBank(BloodBankID);
Query OK, 0 rows affected (4.08 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> desc blood;
                            | Null | Key | Default | Extra
 Field
 BloodID
               varchar(10)
                                     PRI | NULL
                           NO
                                           NULL
 BloodType
               varchar(30)
                             YES
 BloodBankID |
               varchar(10)
                             YES
                                     MUL
                                           NULL
               date
                             YES
 DateOfReg
                                           NULL
```

Dropping Constraints

```
mysql> Alter Table Manager Drop constraint emp_ck;
Query OK, 0 rows affected (0.31 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Disabling and Enabling Constraints

```
mysql> alter table bloodbank disable keys;
Query OK, 0 rows affected, 1 warning (0.04 sec)
mysql> alter table bloodbank enable keys;
Query OK, 0 rows affected, 1 warning (0.04 sec)
```

