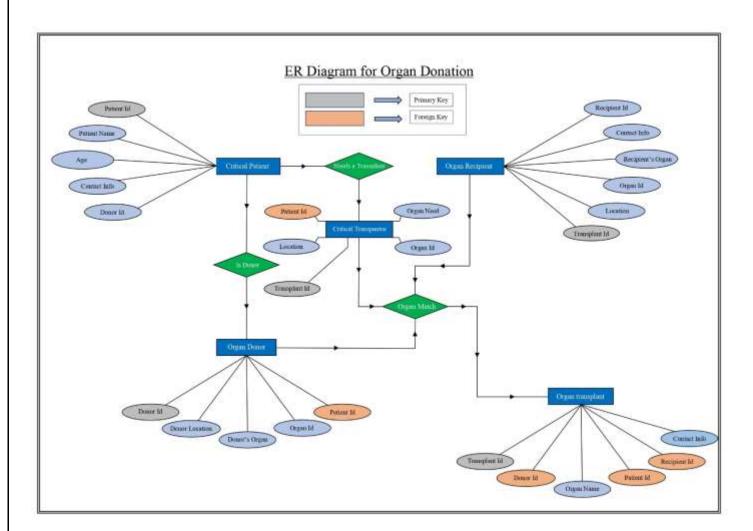
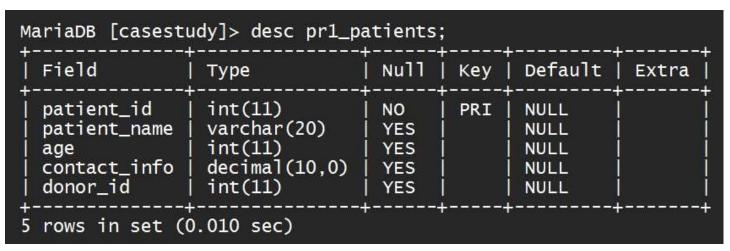
Organ Donation

- 1. This project represents the process of organ donation for both critically ill patients and people who are suffering from organ degradation.
- 2. In this project, we have 5 tables,
- 1) Patients
- 2) Critical Patients
- 3) Organ Donor
- 4) Organ Recipient
- 5) Organ Transplant





| Field | Туре | Null | Key | Default | Extra |
|---------------|-------------|------|-----------|---------|-------|
| patient_id | int(11) | YES | MUL | NULL | i |
| location | varchar(20) | YES | İ | NULL | j |
| organ_need | varchar(20) | YES | j | NULL | j |
| organ_id | int(11) | YES | ĺ | NULL | ĺ |
| transplant_id | int(11) | NO | PRI | NULL | ĺ |

| MariaDB [casestu | udy]> desc pr1_o | rgan_dor | nor; | |
|---|---|---------------------------------------|--------------|-----------------|
| Field | Туре | Null | Key | Default Extra |
| patient_id donor_id location contact_info organ_name organ_id | int(11) int(11) varchar(20) decimal(10,0) varchar(20) int(11) | YES NO YES YES YES YES | MUL PRI | NULL |
| 6 rows in set (|).008 sec) | - | | |

| MariaDB [casestudy]> | desc pr1_organ | _recipi | ent; | | |
|--|---|---------------------------------------|---------------------|--|-------|
| Field | Туре | Null | Кеу | Default | Extra |
| recipient_id location contact_info recipients_organ organ_id transplant_id | int(11) varchar(20) decimal(10,0) varchar(20) int(11) int(11) | YES YES YES YES YES NO | PRI | NULL NULL NULL NULL NULL NULL | |
| 6 rows in set (0.012 | sec) | | | | |

| Field | Туре | Null | Key | Default | Extra |
|------------------|-------------|------|--------------|---------|-------|
| transplant_id | int(11) | NO | PRI | NULL | 1 |
| donor <u>i</u> d | int(11) | YES | MUL | NULL | |
| organ_name | varchar(20) | YES | - 0.00000000 | NULL | İ |
| patient_id | int(11) | YES | MUL | NULL | |
| recipient_id | int(11) | YES | MUL | NULL | İ |
| contact_info | varchar(20) | YES | İ | NULL | |

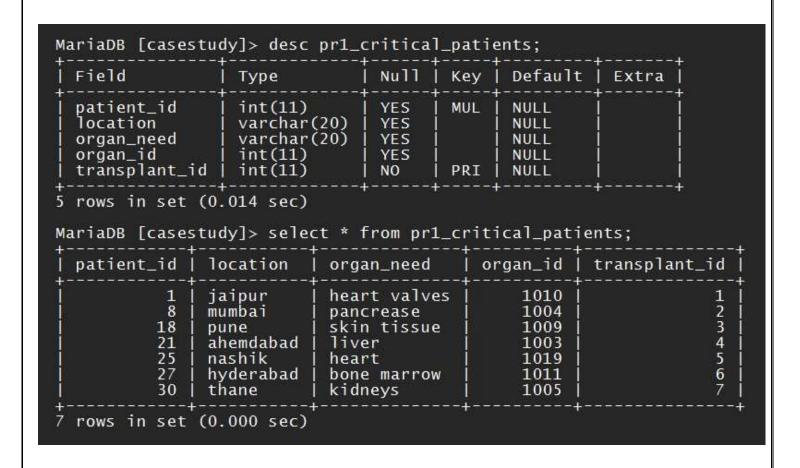
1) Patients:

- 1. In this table, we have collected some patients who are terminally ill.
- 2. The table contains 5 columns namely, patient id, patients name, age, and contact information also to check if they are a donor or not, we have donor id as well.

| ield - | Туре | į Nu | 11 Key | Defau | ılt İ Extra |
|---|--|--|--|---|---|
| <pre>patient_id int(11) patient_name varchar(20) age</pre> | | NO YE YE YE | S S S | NULL NULL NULL NULL NULL | |
| rows in set | | , | | | • |
| riaDB [cases + | tudy]> select ' | from | pr1_patie + | nts; | |
| oatient_id | patient_name | age | contact | _info | donor_id |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 34 34 34 34 34 | Anamica Vartika Ankit Anupama Rishabh Ramesh kevin Ramakrishna Allen Varun Arav Gaurav Virohi Pravin Jeevan Kirthi Vrishabh Chetan Naresh Pratik Shravan Rakesh Vartak varsha rajani gaurav Arohi Vishal Swapnil Akash Bharat Rakesh Ravi Sushil | 26 30 34 25 30 45 30 45 30 45 30 45 30 55 36 36 36 36 36 36 36 36 36 36 36 36 36 | 98565 98565 98565 98565 98565 98564 88886 88886 88754 98754 98754 98754 98646 98587 88886 78664 89956 87852 878525 878525 88885 | 86445 56424 45345 76437 85454 97856 97856 97856 87679 58523 84856 42133 84545 84545 84545 84545 89456 89456 89456 89456 89456 89456 89456 89456 89458 | NULL 1 2 3 4 5 6 NULL 7 8 9 10 11 12 13 14 15 NULL 16 17 NULL 18 19 20 NULL 21 NULL 22 23 NULL 22 23 NULL 24 25 26 27 |
| 35 36 37 | Hemant Tushar Ashoka | 33 24 24 | 98885 88886 98235 | 51248 | 28 29 30 |

2) Critical Patients:

- 1. These are the patients who are terminally ill and are in the immediate need for an organ.
 - 2. This table contains location, contact info, organ need, organ id of the patient.
 - 3. transplant id is the number on the waiting list for organ transplant.



3) Organ Recipient:

34 rows in set (0.096 sec)

| | - | | | | | | | |
|---|--|--|--|---|---|-------------------------------------|--|---|
| MariaDB [casest | udy]> desc pr | 1_organ | _recipie | ent; | ĵ. | i | | |
| Field | + Type | | Null | Key | Default | Ext | ra | |
| recipient_id location contact_info recipients_ord organ_id transplant_id | int(11) varchar decimal gan varchar int(11) int(11) | (20) (10,0) | YES YES YES YES YES NO | PRI | NULL NULL NULL NULL NULL NULL | + | | |
| 6 rows in set (| | * from ; | ' pr1_orga | in_rec | ' ipient; | | , | |
| recipient_id | location | + conta | ct_info | rec | ipients_or | + gan | organ_id | ++ transplant_id |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 | assam delhi ahemadabad mumbai mumbai nagpur jaipur hyderabad panaji mumbai mumbai mathura mumbai mathura surat ratnagiri mumbai mumbai banglore hyderabad thane mumbai mumbai mumbai banglore hyderabad | 9856 9856 9866 8886 9856 9877 9876 9866 9866 9856 5956489 5545356 4576423 6485498 5497885 4697845 8687625 5456589 5984856 8642133 4889134 4561245 7562125 8634545 6545885 66451231 6545885 66451231 6545885 66458549 664585498 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 66458546 | bra tend light lint bond live stor hea skid hea kidd thre blad too light too lint light too lint light too lint light too lint lint lint lint lint lint lint lint | n tissue in dons aments estines er oat moch gs neas rt neas e marrow neys creas dons dder aments th moch ns th estines er cle rt valves | | 1013 1009 1015 1014 1012 1006 1007 1003 1020 1017 1008 1019 1009 1019 1008 1011 1005 1020 1005 1004 1014 1014 1016 1017 1013 1016 1006 1003 1018 | 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 |
| | | 986 | 4889135 4561246 7562126 | hea bon | rt valves es | | | |

4) Organ Donor:

- 1. This table contains the values of critical patients and organ donor 1.
- 2. This table connects organ donor and critical patients through organ id.
- 3. It satisfies the condition needed for the organ transplant.

| Field | Type | Nul | 1 Key | Defau | lt Extra | |
|--|--|--|--|--|--|--|
| patient_id donor_id location contact_info organ_name organ_id | int(11) int(11) varchar(7 decimal(1 varchar(7 int(11) | 10,0) YES | PRI | NULL NULL NULL NULL NULL NULL | | |
| rows in set (| 0.013 sec) | | | | ++ | |
| riaDB [casest | udy]> seled | ct * from p | r1_organ_ | _donor; | | |
| patient_id (| donor_id | location | contact | _info | organ_name | organ_id |
| 2 3 4 5 6 7 9 10 11 12 13 14 15 16 17 19 20 22 23 24 26 28 29 31 32 33 34 35 36 37 | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | hyderabad mumbai thane mumbai nashik jaipur mumbai pune kolhapur nashik pune mumbai kolhapur mumbai hyderabad mathura thane pune kolhapur mumbai ratnagiri panaji ahemdabad assam jaipur mumbai ahemdabad surat mumbai ahemdabad | 98569 98569 98569 98569 98659 88889 98669 98759 98648 | 186445 186445 186424 185454 185454 197856 197856 197856 197856 197856 197856 197856 197856 197856 197856 197856 197856 1984856 19 | tendons lungs liver pancreas bones brain ligaments tendons skin tissue heart valves kidneys veins bladder pancreas liver bone marrow throat heart kidneys intestines tooth stomoch bones skin tissue lungs intestines bladder bone marrow corneas muscle | 1014 1002 1003 1004 1007 1015 1012 1014 1009 1010 1005 1013 1001 1004 1003 1011 1020 1019 1005 1016 1017 1007 1007 1007 1009 1001 |

5) Organ Transplant:

| Field | Type | | Nu11 | Key | Default | Extra | | |
|---|---|--|---|-------------------------------------|---|------------|---|--|
| transplant_id donor_id organ_name patient_id recipient_id contact_info | int(11) int(11) varchar(20 int(11) int(11) decimal(10 | | NO YES YES YES YES YES | PRI MUL MUL MUL | NULL NULL NULL NULL NULL NULL NULL | | | |
| rows in set (0 | .010 sec) | | | teere: | - | teessessed | | |
| riaDB [casestu | dy]> select | * fro | om pr1_0 | organ. | _transplant | 2; + | | + |
| transplant_id | donor_id | orga | ın_name | 1 | patient_id | recipie | ent_id | contact_info |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 24 25 28 30 | 10 4 9 3 18 16 11 12 24 6 1 7 20 5 15 17 22 29 28 19 14 13 21 | pand skir live hear bone kidr skir bone live thro stom lung corr bone kidr | e tarrowneys Is in tissue In tissue | | 1 8 18 21 25 27 30 NULL NULL NULL NULL NULL NULL NULL NUL | | NULL NULL NULL NULL NULL NULL 1 2 3 4 5 6 7 8 9 10 11 12 17 18 21 23 25 | 9856545896 8854697856 8888634545 9864645621 8845898642 7866454644 8783458647 9856956489 9856545356 9854576423 9556485498 9865497845 8888497821 8888687625 9856458545 9875456589 9875456589 9875456589 9875456589 9875456589 9875456589 9856545856 9856545856 9856545857 9856545857 9856545857 9856545857 |

1. Patients who aren't a donor.

2. Updating contact info using organ transplant table.

```
MariaDE [casesudy]» update pri organ_transplanti inner join pri_critical_patients1 on pri_organ_transplanti.patient_id = pri_critical_patients1.patient_id set pri_critical_patients1.patient_id = pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patient_id set pri_critical_patients1.patients1.patient_id set pri_critical_patients1.patients1.patients1.patients1.patients1.patients1.patient_id set pri_critical_patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.patients1.pa
```

3. Name of the donors who didn't donate any organs.

4. Information of recipients who received organ transplant.

```
MariaD8 [casestudy]> select contact_info, location from prl_organ_recipient where contact_info in (select contact_info from prl_organ_transplant1);

| contact_info | location |
| 9856956489 | assam | 9856543366 | delhi | 9854576423 | ahemadabad | 9956485498 | mumbai | 9865497845 | nagpur | 8888497845 | nagpur | 8888497845 | nappur | 8888497845 | pangii | 9875456589 | mumbai | 9875456589 | mumbai | 9875456589 | mumbai | 9875456589 | mumbai | 9875456589 | mumbai | 9858642133 | banglore | 8888634545 | nashik | 986561231 | mathura | 9856545855 | surat | 9856545855 | surat | 9856545855 | surat | 9856482134 | mumbai | 9956482134 | mumbai | 9958642134 | 9958642134 | 9958642134 | 9
```

<u>Joins</u>:

1. Adding organ name column into the organ transplant table.

```
Mariade [casestudy]: create table priorgan transplant) as select priorgan transplant id, priorgan transplant.donor_id, priorgan_donor_organ_name, priorgan_donor_priorgan_transplant.donor_id = pri

Custy OK, 41 rows Effected (0.573 sec)

Records (41 rows priorgan_transplant):

| transplant_id donor_id | priorgan_transplant):

| transplant_id donor_id | priorgan_transplant):

| transplant_id donor_id | priorgan_transplant):

| transplant_id donor_id | priorgan_transplant):

| transplant_id donor_id | priorgan_name | patient_id | recipient_id |

| transplant_id | priorgan_name | patient_id | recipient_id |

| transplant_id | priorgan_transplant):

| transplant_id | priorgan_transplant):

| transplant_id | priorgan_transplant):

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant):

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant.donor_id = priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant.donor_id = priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant.donor_id = priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

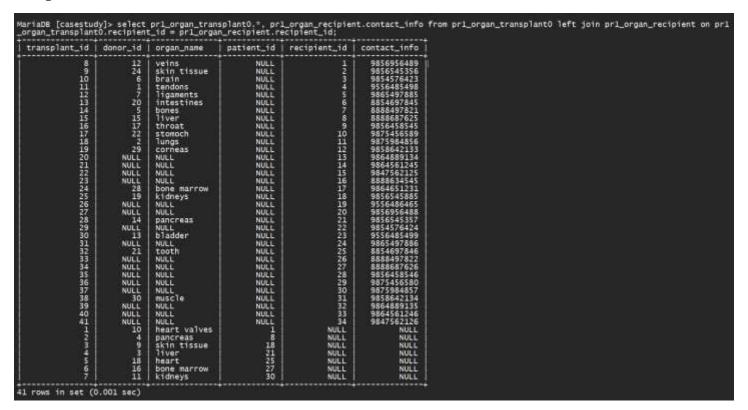
| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

| transplant_id | priorgan_transplant | recipient_id |

|
```

2. Joining organ transplant and organ recipient table to get contact info of the recipients.



3. Updating donor id in table using inner join.

4. Getting all the information on critical patients by combining critical patients and organ transplant table.



View: Creating view table using patients table and organ transplant table.

```
MariaD8 [casestudy]> create view patient_view2 as select prl_patients.*, prl_organ_transplant2.transplant_id = prl_organ_transplant2.patient_id;
query oK, 0 rows affected (0.346 sec)

MariaD8 [casestudy]> select * from patient_view2;

| patient_id | patient_name | age | contact_info | donor_id | transplant_id |

| 1 | Anamica | 26 | 9856545896 | MULL | 1 |
| 8 | Ramakrishna | 58 | 8854697856 | MULL | 2 |
| 18 | Chetan | 31 | 888634545 | MULL | 3 |
| 21 | Shrawan | 50 | 9864645621 | MULL | 4 |
| 25 | rajani | 32 | 8845898642 | MULL | 5 |
| 27 | Arohi | 42 | 786654644 | MULL | 6 |
| 30 | Akash | 25 | 8783438647 | MULL | 7 |
| 7 rows in set (0.001 sec)
```

