DBMS ASSIGNMENT 3

SIMPLE QUERIES:

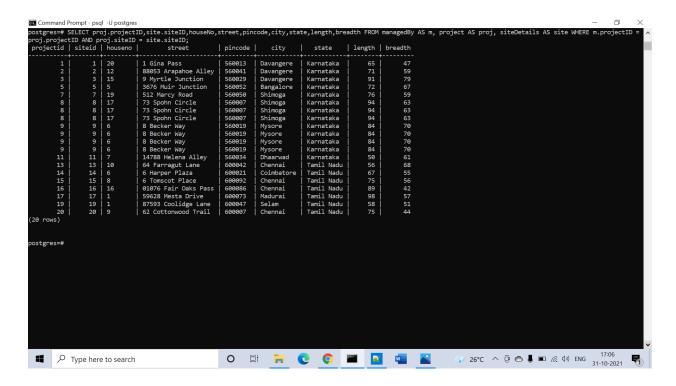
1. List of all customer feedbacks for project with projectID=10

2. List of projects designed by a particular designer

3. Payment details for all projects

```
Command Prompt - psql -U postgres
      stgres=#
    ostgres=#
ostgres=# SELECT * FROM (project as p JOIN payment as py ON p.projectID=py.projectID);
projectid | siteid | customerid | startdate | estimatedenddate | costprice | sellingprice | advancepaid | profit | projectid
                                                                                                                          2020-11-05
2021-03-13
2021-10-07
                                                                                                        1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
                                                          1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
                                                                                                                                                                         2023-04-01
2022-02-06
2023-01-22
2023-05-23
2023-08-17
2022-01-31
2023-08-26
2023-06-15
2022-12-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
                                                                                                                          2021-10-07
2020-10-11
2021-01-16
2021-05-27
2021-05-29
2021-04-03
2021-03-26
                            5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
                                                                                                                           2021-08-01
2021-07-18
2021-03-23
                                                                                                                                                                         2023-07-13
2022-11-12
2022-07-03
                                                                                                                                                                                                                                                                                                                                                                      60000
20000
10000
10000
25000
25000
10000
45000
                                                                                                                         2021-03-23
2021-03-12
2021-08-11
2020-12-16
2021-08-08
2020-11-03
2020-11-14
2021-08-24
2021-03-26
                                                                                                                                                                         2022-11-17
2022-10-31
2022-09-25
                                                                                                                                                                                                                                                                                                                                                                                                       30000
25000
20000
30000
                                                                                                                                                                        2022-09-25
2022-02-18
2022-03-02
2023-04-16
2022-09-26
2022-05-26
```

4. Details of sites managed by project managers



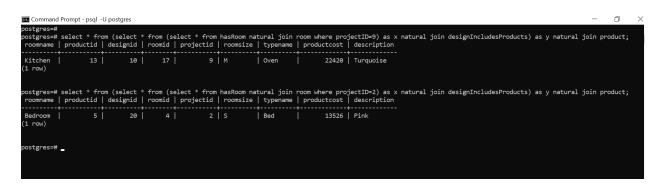
5. Total profit made by the company



COMPLEX QUERIES:

Details of all projects managed by project manager with ID=5

2. List of rooms in a project with projectID=2 and 9 with respective designs and products used in each design



3. List of contractors for a project with projectID=4

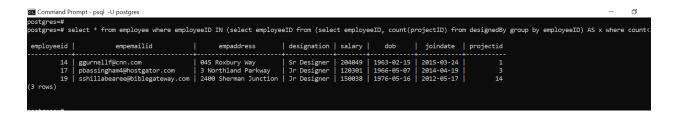
```
Command Prompt - psql -U postgres

postgress# postgress# select * from contractor where contractorID IN (select contractorID from works where projectID=4);
contractorid | contractorname | typeofwork | contractoremail

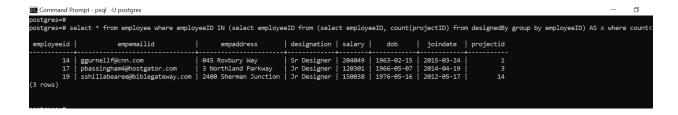
2 | kikelia | Painter | kcrichmerl@irs.gov
4 | Ely | Painter | emellhuisha@commons.org
6 | kylynn | Plumber | ktimms5@hud.gov

postgres=#
```

4. Details of designers who are working on less than 2 projects, so that they can be assigned to new projects



5. Site details for a project on which a specific designer is working on



CREATING MULTIPLE USERS WITH DIFFERENT ACCESS RIGHTS:

Below are the users created for the application:

```
hd=# CREATE USER projectManager WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
hd=# CREATE USER designer WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
hd=# CREATE USER admin WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
hd=# CREATE USER companyManager WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
hd=# CREATE USER accountant WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
hd=# CREATE USER accountant WITH PASSWORD '1234' CREATEDB;
CREATE ROLE
```

- 1. Project manager: has access to the following tables
 - project
 - employee
 - managedBy
 - empPhNo
 - designedBy
 - customer
 - customerFeedback
 - design
 - room

- hasRoom
- product
- designIncludesProducts
- siteDetails
- contractor
- contractorPhNo
- Works
- 2. Designer: has access to the following tables
 - Project
 - siteDetails
 - design
 - room
 - hasRoom
 - product
 - designIncludesProducts
- 3. Admin: has access to all the tables in the db
- 4. Company manager: has access to following tables
 - product
 - company
 - companyPhNo
 - Sells
- 5. Accountant: has access to following tables
 - project
 - customer
 - payment

GRANTING ACCESS RIGHTS:

```
hd=# GRANT ALL ON DATABASE hd to admin;
GRANT
hd=# GRANT ALL ON project, emplo TO projectManager
hd=# GRANT ALL ON project, employee, managedBy, empPhNo, designedBy, customer, customerFeedback, design, room, hasRoom, product, designIncludesProduct
s, siteDetails,contractor,contractorPhNo,works TO projectManager;
GRANT
hd=# GRANT ALL ON project, design, room, hasRoom, product, designIncludesProducts, siteDetails TO designer;
GRANT
hd=# GRANT ALL ON product, company, companyPhNo, sells TO companyManager;
GRANT
hd=# GRANT ALL ON project, customer, payment TO accountant;
GRANT
hd=# GRANT ALL ON project, customer, payment TO accountant;
GRANT
hd=# GRANT ALL ON project, customer, payment TO accountant;
```

SCREENSHOTS FOR DIFFERENT USERS ACCESSING TABLES:

Below are the screenshots attached for successful(displays the tables) and unsuccessful user accesses(permission-denied).

1. Designer:

```
../assignment 3 > main | > psql -d hd -U designer -W
Password:
psql (13.4 (Ubuntu 13.4-1.pgdg20.04+1))
Type "help" for help.
hd=> select * from project;
projectid | siteid | customerid | startdate | estimatedenddate
        1 |
                 1 |
                              1 | 2020-11-05 | 2023-04-01
        2 |
                 2 |
                              2 | 2021-03-13 | 2022-02-06
        3 I
                 3 I
                              3 | 2021-10-07 | 2023-01-22
        4 |
                 4
                              4 | 2020-10-11 | 2023-05-23
        5 I
                 5 I
                              5 | 2021-01-16 | 2023-08-17
                 6
        6 I
                             6 | 2021-05-27 | 2022-01-31
                              7 | 2021-05-29 | 2023-08-26
                8
        8 I
                             8 | 2021-04-03 | 2023-06-15
        9 |
                 9 |
                              9 | 2021-03-26 | 2022-12-01
        10 l
                10 l
                             10 | 2021-08-01 | 2023-07-13
        11 |
                11 |
                             11 | 2021-07-18 | 2022-11-12
        12 l
                12
                             12 | 2021-03-23 | 2022-07-03
       13 |
                13 |
                             13 | 2021-03-12 | 2022-11-17
       14 I
                             14 | 2021-08-11 | 2022-10-31
                14 l
                             15 | 2020-12-16 | 2022-09-25
        15
                15 |
        16 l
                16 l
                             16 | 2021-08-08 | 2022-02-18
        17
                17
                             17 | 2020-11-03 | 2022-03-02
                18
                             18 | 2020-11-14 | 2023-04-16
        18
        19
                19
                             19 | 2021-08-24 | 2022-09-26
        20 |
                20 |
                             20 | 2021-03-26 | 2022-05-26
(20 rows)
hd=> select * from employee;
ERROR:
       permission denied for table employee
hd=>
```

2. Company Manager

```
../assignment 3 > main 🗌 > psql -d hd -U companymanager -W
Password:
psql (13.4 (Ubuntu 13.4-1.pgdg20.04+1))
Type "help" for help.
hd=> select * from product;
 productid | typename
                                        | productcost | description
                             roomname
         1 | Study Table
                          I Bedroom
                                                14905 I
                                                        Purple
         2 | Study Table | Bedroom
                                                22896 | Green
         3 | Study Table |
                            Bedroom
                                                16270 | Orange
         4 | Bed
                            Bedroom
                                                17183 | Teal
         5 | Bed
                          | Bedroom
                                                13526 | Pink
                          | Bathroom
         6 | Tile
                                                12262 | Goldenrod
         7 | Bathtub
                            Bathroom
                                                21665 | Crimson
         8 | Tap
                          I Bathroom
                                                15325 | Green
                          | Bathroom
         9 | Tap
                                                21819 | Blue
                          | Bathroom
        10 | Shower
                                                10686 | Khaki
       11 | Exhaust Fan
                          l Kitchen
                                                12149 | Red
       12 | Chimney
                          | Kitchen
                                                13887 | Crimson
       13 | Oven
                          | Kitchen
                                                22420 | Turquoise
       14 | Dining table | Dining Hall |
                                                25594 | Crimson
       15 | Dining table | Dining Hall |
                                                27014 | Turquoise
                            Living Hall |
       16 | TV Stand
                                                17483 | Turquoise
       17 | Sofa
                          | Living Hall |
                                                20860 | Pink
        18 | Teapoy
                          | Living Hall |
                                                22373 | Red
       19 | Teapoy
                          | Living Hall |
                                                17933 | Turquoise
        20 | TV Stand
                          | Living Hall |
                                                17234 | Violet
(20 rows)
hd=> select * from payment;
ERROR: permission denied for table payment
hd=>
```

3. Accountant

```
../assignment 3 ≯ main □ ≯ psql -d hd -U accountant -W
Password:
psql (13.4 (Ubuntu 13.4-1.pgdg20.04+1))
Type "help" for help.
hd=> select * from customer;
 customerid | customername
                                   | customerphno |
                                                           customeremailid
                                                                                          customeraddress
          1 | Chrissie Abrashkov |
                                     3807494004
                                                    | cabrashkov0@shinystat.com | 2348 Mosinee Terrace
          2 | Cecile Larver
                                                                                   | 356 Corben Drive
| 2 Mitchell Park
                                     9018134954
                                                     clarver1@cnet.com
          3 | Lissie Stoven
4 | Laure Hodcroft
5 | Caro Tye
                                     1116433068
                                                      lstoven2@japanpost.jp
                                     1284421832
                                                      lhodcroft3@prnewswire.com | 0944 Doe Crossing Terrace
                                     1991655175
                                                      ctye4@examiner.com
                                                                                   | 82 Nevada Way
             | Fayth Pallin
                                     4718119269
                                                      fpallin5@booking.com
                                                                                     0970 Pine View Avenue
             | Frank Dever
                                     5678798062
                                                      fdever6@examiner.com
                                                                                   | 074 Graceland Circle
                                                                                   | 5 Crest Line Drive
             | Shea Harmon
                                     6491223571
                                                      sharmon7@addtoany.com
          8
              Marcello Macon
                                     2723889983
                                                      mmacon8@wikimedia.org
                                                                                     1801 Harper Road
         10
             | Maxie Vicary
                                     5466203517
                                                      mvicary9@hatena.ne.jp
                                                                                     74333 Mallard Road
             | Rayshell Cashin
                                     2027998159
                                                      rcashina@wsj.com
                                                                                   | 674 Sachtjen Plaza
         11
             | Arabelle Squibbes
                                     6551228731
                                                      asquibbesb@woothemes.com
                                                                                   | 612 Hudson Road
            | Bren Chessel
| Kathryn Sinkin
                                     7992513221
                                                      bchesselc@vk.com
                                                                                   | 2793 Spohn Junction
                                                                                   | 3 Dapin Crossing
                                                      ksinkind@github.com
         14
                                     1559144223
         15 | Corette Cass
16 | Loleta Sutliff
17 | Noel Lovekin
                                     2346219271
                                                      ccasse@rambler.ru
                                                                                   4183 1st Street
                                                                                   838 Bobwhite Junction
                                     8479403715
                                                      lsutlifff@slideshare.net
                                                                                   | 1 Bartelt Crossing
                                     9271883243
                                                      nloveking@flavors.me
                                                                                   | 65 Scott Place
| 57243 Fuller Place
         18 |
19 |
               Sally Allcoat
                                     7619735980
                                                      sallcoath@nhs.uk
               Rosalinda Boord
                                     8514148789
                                                      rboordi@imageshack.us
                                    7342930039
                                                     pmonkj@creativecommons.org | 6041 Nobel Park
              Phaedra Monk
(20 rows)
hd=> select * from employee;
ERROR: permission denied for table employee
hd=>
```

4. Project Manager

```
../assignment 3 > main | > psql -d hd -U projectmanager -W
Password:
psql (13.4 (Ubuntu 13.4-1.pgdg20.04+1))
Type "help" for help.
hd=> select * from design;
 designid | designcost
        1 | 106876.79
        2 |
             99621.92
        3 | 112222.62
            105331.83
        4 I
        5 I
             30450.01
       6
             36424.46
       7 I
            138053.00
       8 |
             79800.57
       9 |
             24396.51
       10 |
             54567.82
       11 |
            120758.99
       12 |
           123396.30
       13 I
             76152.35
       14 I
             52593.58
       15 I
            136907.16
       16
            135680.30
       17 I
             78143.61
       18
             31012.67
       19 |
             130554.53
             102232.04
       20 |
(20 rows)
hd=> select * from payment;
ERROR: permission denied for table payment
hd=>
```

CONTRIBUTION OF EACH MEMBER:

- Initial plan and outline of the assignment Our team got on call and discussed for about 2 hours
- Simple and complex queries We spent 2 hours on this
- Final execution We got on a call and completed pending tasks and user access rights / privileges 5 hours.