

Setup Database PostgreSQL Dummy Data

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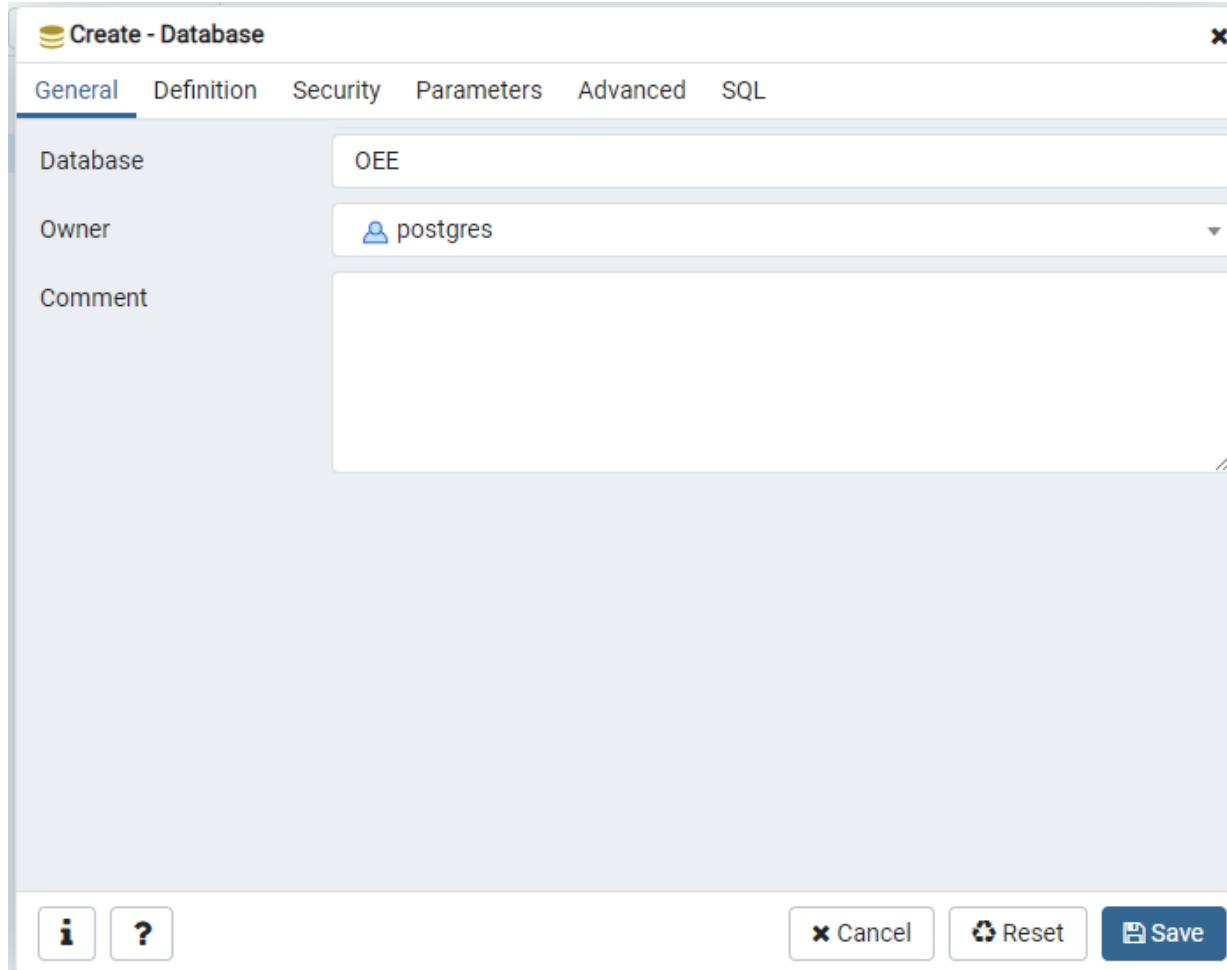
Installation

PostgreSQL Installation

1. Install PostgreSQL database in your Windows

Visit : <https://www.postgresql.org/download/>

2. Open pgAdmin, Make Database: OEE



PostgreSQL Installation

3. PostgreSQL Configuration

Open file pg_hba.conf, located in C:\Program Files\PostgreSQL\<version>\data\

Setting with below command:

```
...  
...  
# TYPE DATABASE      USER      ADDRESS          METHOD  
  
# IPv4 local connections:  
host  all            all        0.0.0.0/0        md5  
# IPv6 local connections:  
host  all            all        ::0/0            md5  
# Allow replication connections from localhost, by a user with the  
# replication privilege.  
host  replication    all        0.0.0.0/0        md5  
host  replication    all        ::0/0            md5  
host  all            all        0.0.0.0/0        md5
```

After edit file, please restart PostgreSQL service, find on service list

PostgreSQL Installation

4. Change PostgreSQL timezone (Optional)

Set the timezone of PostgreSQL, for example I use timezone Asia/Jakarta

Open pgadmin, and run query:

```
ALTER DATABASE postgres SET timezone = 'Asia/Jakarta'
```

Edit file postgresql.conf

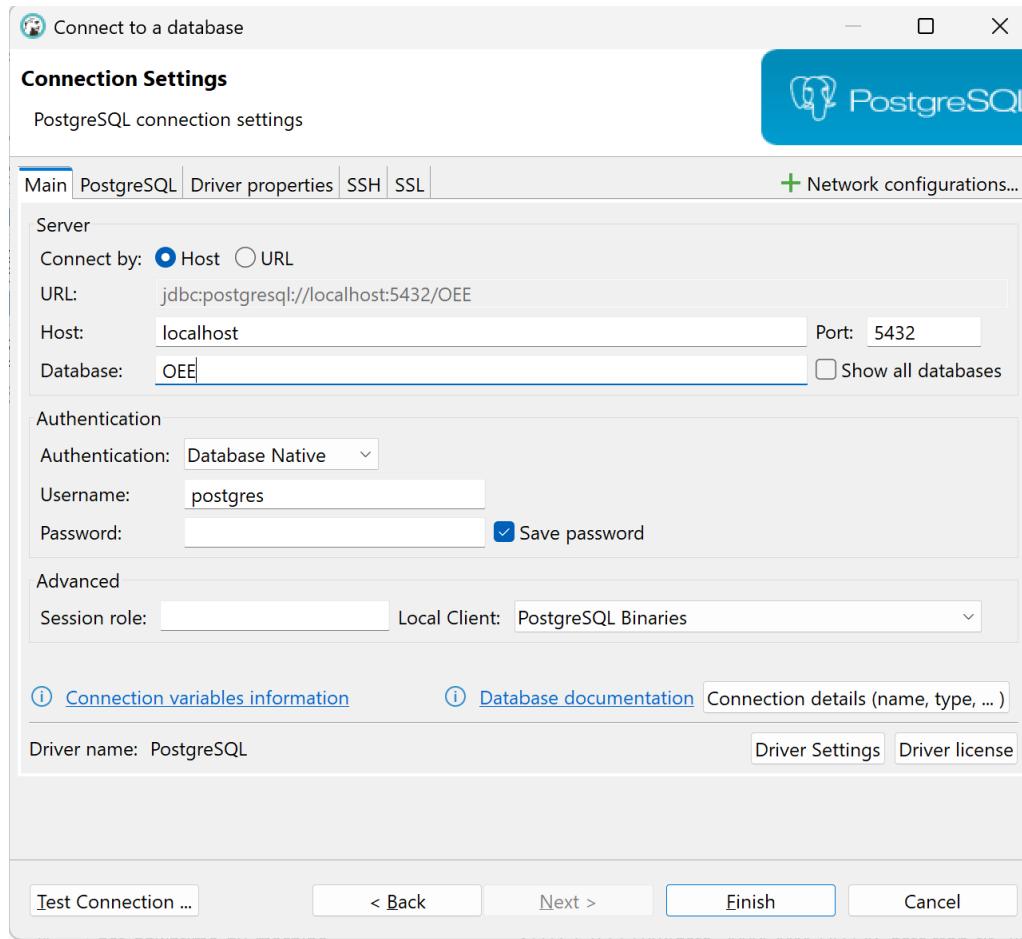
```
# - Locale and Formatting -  
  
datestyle = 'iso, dmy'  
#intervalstyle = 'postgres'  
timezone = 'Asia/Jakarta'  
#timezone_abbreviations = 'Default'      # Select the set of available time zone  
                                         # abbreviations. Currently, there are  
                                         # Default  
                                         # Australia (historical usage)  
                                         # India  
                                         # You can create your own file in  
                                         # share/timezonesets/.  
                                         # min -15, max 3; any value >0 actually  
                                         # selects precise output mode  
                                         # actually, defaults to database  
  
#extra_float_digits = 1  
  
#client encoding = sql ascii
```

DBeaver Installation

1. Install DBeaver

Visit : <https://dbeaver.io/download/>

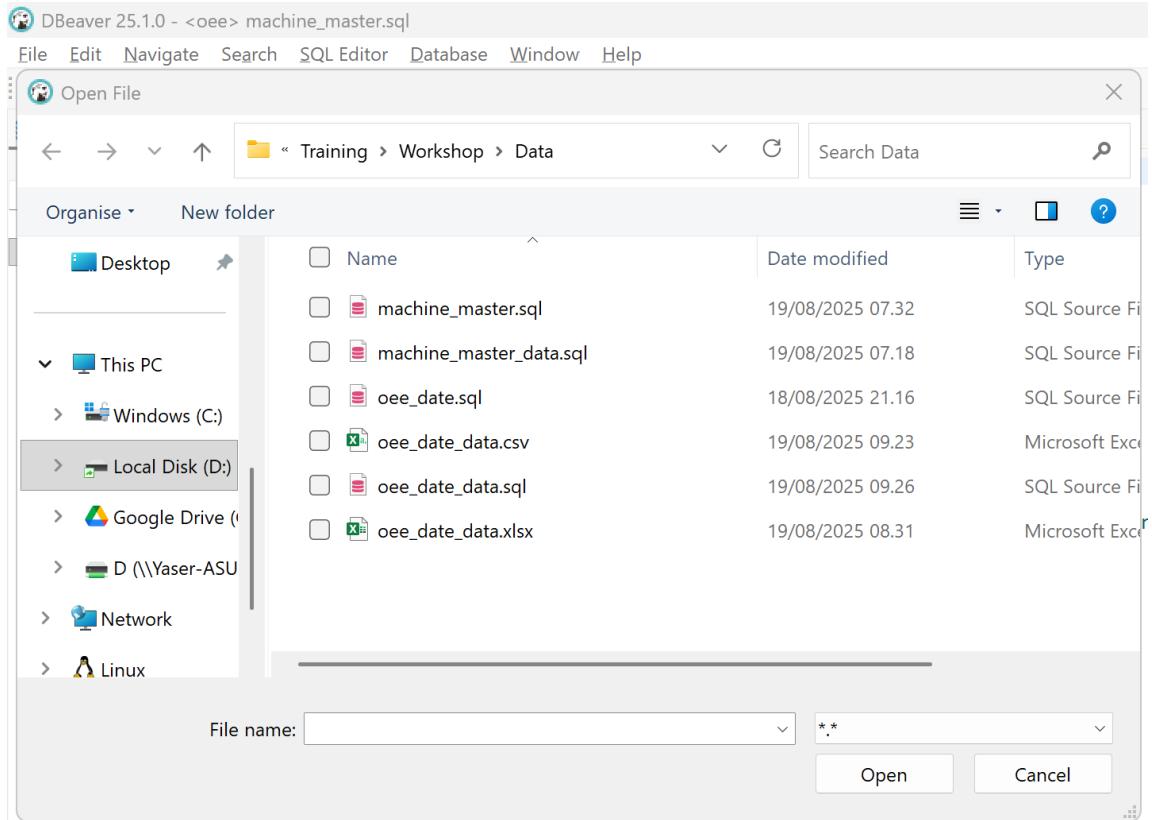
2. Connect to database (Database → New Database Connection → PostgreSQL)



Create Tables Using Dbeaver or Pgadmin

Create Table – machine_master

1. Open file: machine_master.sql



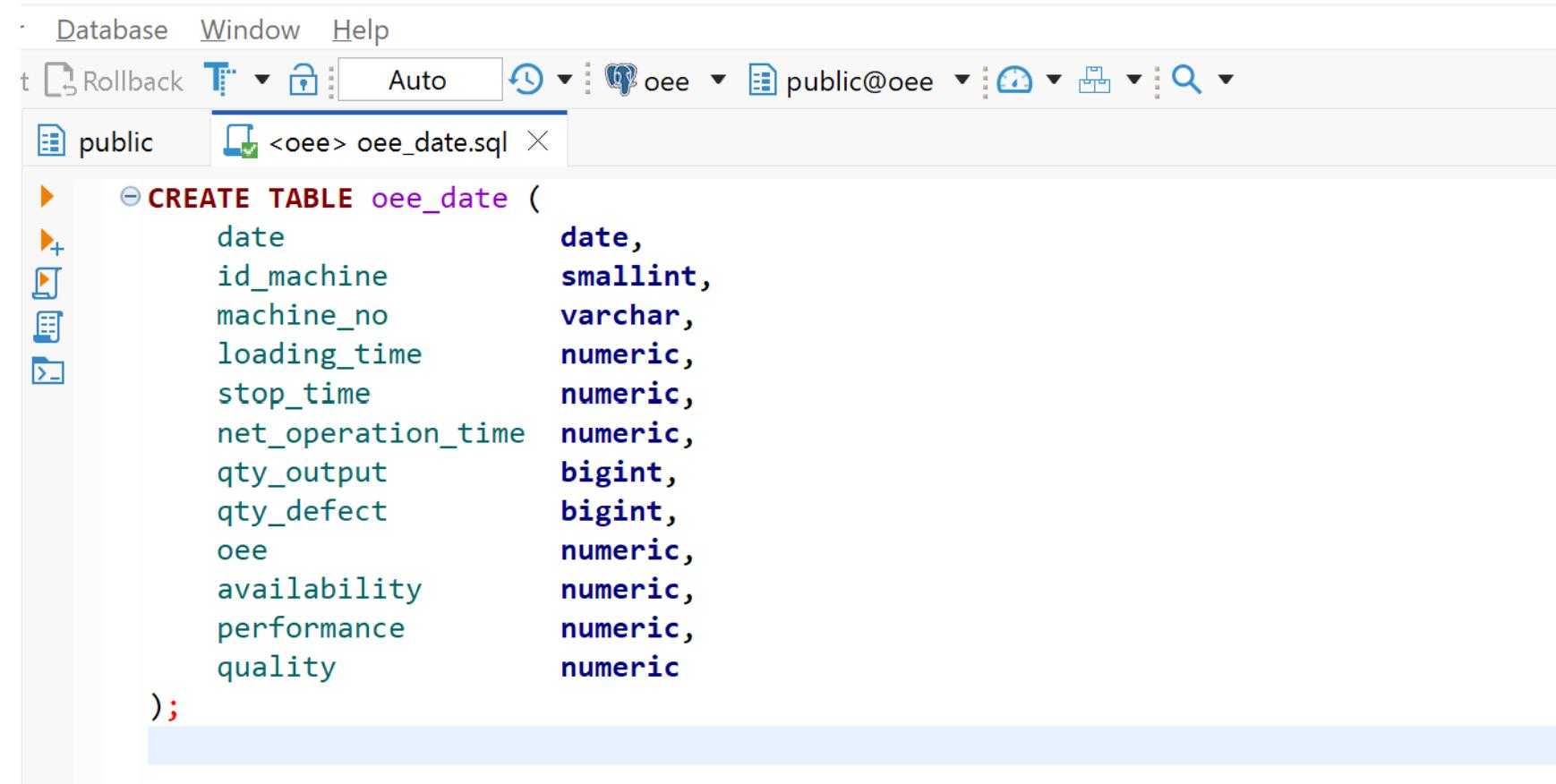
2. Run Query:

```
public <oee> machine_master.sql X
CREATE TABLE public.machine_master (
    id_machine int2 NOT NULL,
    machine_name varchar(255) NOT NULL,
    machine_no varchar NOT NULL,
    machine_group varchar(255) NULL,
    line_group varchar(255) NULL,
    id_employee varchar(255) NULL,
    id_type int2 NULL,
    ct float4 NULL,
    qty_perct int4 NULL,
    status_start bool NULL,
    status_stop bool NULL,
    last_modified timestamp(6) DEFAULT now() NULL,
    CONSTRAINT machine_master_pkey PRIMARY KEY (id_machine, machine_name, machine_no)
);
```

Create Table – oee_date

1. Open file: oee_date.sql

2. Run Query:



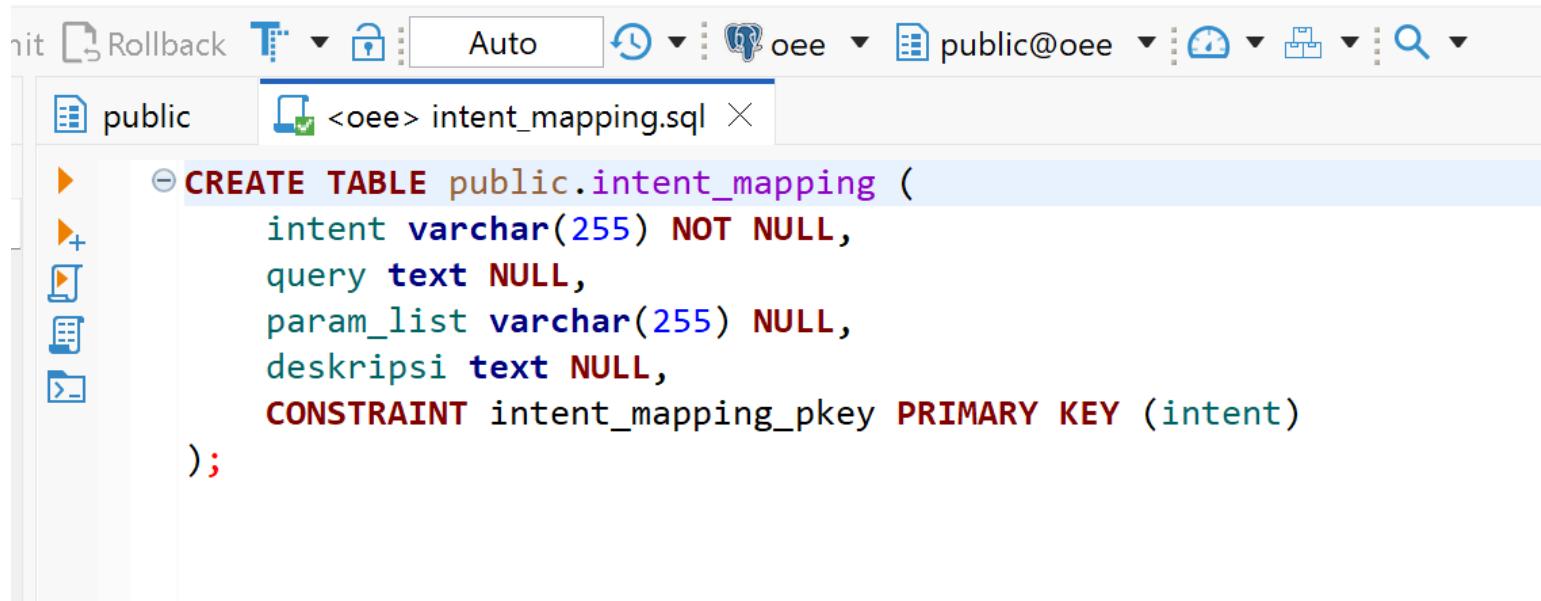
The screenshot shows the MySQL Workbench interface. The title bar includes 'Database', 'Window', and 'Help' menus. The toolbar features icons for 'Rollback', 'Auto', 'oee', 'public@oee', and search functions. A left sidebar displays database objects like 'public', 'oee', and 'oee_date'. The main pane shows the SQL code for creating the 'oee_date' table:

```
CREATE TABLE oee_date (
    date date,
    id_machine smallint,
    machine_no varchar,
    loading_time numeric,
    stop_time numeric,
    net_operation_time numeric,
    qty_output bigint,
    qty_defect bigint,
    oee numeric,
    availability numeric,
    performance numeric,
    quality numeric
);
```

Create Table – intent_mapping

1. Open file: intent_mapping.sql

2. Run Query:



The screenshot shows the MySQL Workbench interface. The top bar includes buttons for Init, Rollback, Auto, and a connection dropdown set to oee. Below the toolbar is a tab bar with 'public' selected and a file named ' intent_mapping.sql' which has a checkmark indicating it is the current file. The main pane displays the SQL code for creating the 'intent_mapping' table:

```
CREATE TABLE public.intent_mapping (
    intent varchar(255) NOT NULL,
    query text NULL,
    param_list varchar(255) NULL,
    deskripsi text NULL,
    CONSTRAINT intent_mapping_pkey PRIMARY KEY (intent)
);
```

Import Data Using Dbeaver or Pgadmin

Import Data – machine_master

1. Open file: machine_master_data.sql
 2. Run Query:

Database Window Help

Rollback T Auto oe public@oee public <oee> machine_master_data.sql X

```
INSERT INTO public.machine_master (id_machine,machine_name,machine_no,machine_group,line_group,id_employee,id_type,ct, (1,'MACHINING-01','MACH-01','MACHINING','LINE-01','23456',2,35.0,1,false,false,'2025-04-22 14:31:41.069053'), (2,'MACHINING-02','MACH-02','MACHINING','LINE-01','23456',2,35.0,1,false,false,'2025-04-22 14:32:08.868059'), (3,'MACHINING-03','MACH-03','MACHINING','LINE-01','34567',3,40.0,1,false,false,'2025-04-22 14:32:30.670801');
```

Import Data – oee_date

1. Open file: oee_date_data.sql

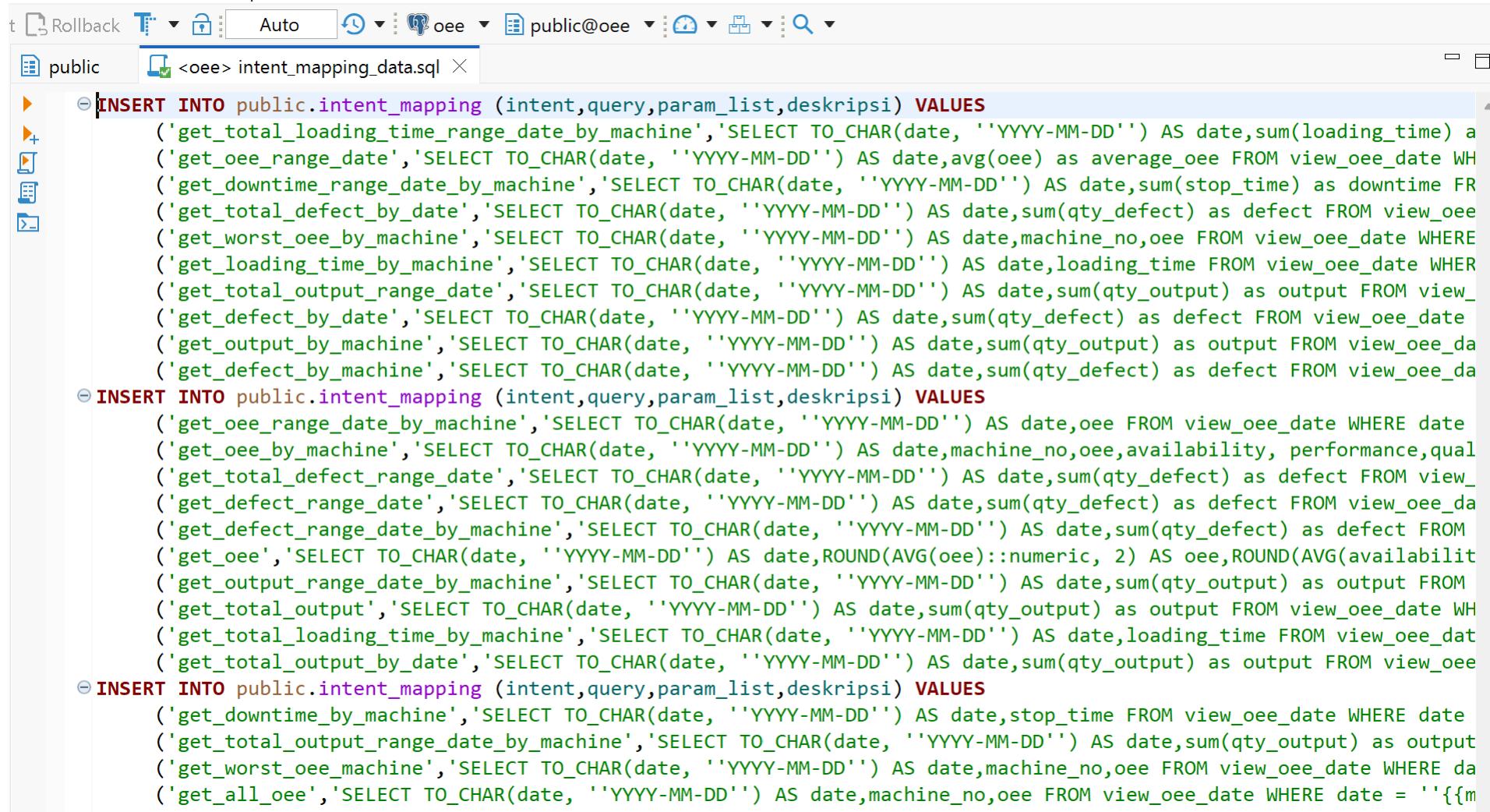
2. Run Query:

```
Rollback T Auto oe public@oe public<oe> oee_date_data.sql X
INSERT INTO public.oee_date ("date",id_machine,machine_no,loading_time,stop_time,net_operation_time,qty_output,qty_def
('2025-08-01',1,'MACH-01',1200,120,972,1944,39,79.375,90,90,97.99382716),
('2025-08-01',2,'MACH-02',1200,72,1049.04,2098,84,83.91986654,94,93,95.99618684),
('2025-08-01',3,'MACH-03',1200,84,1049.04,2098,63,84.7948999,93,94,96.99714013),
('2025-08-04',1,'MACH-01',1200,156,950.04,1900,57,76.7949,87,91,97),
('2025-08-04',2,'MACH-02',1200,156,970.92,1942,58,78.49353244,87,93,97.01338826),
('2025-08-04',3,'MACH-03',1200,96,993.6,1987,20,81.96658279,92,90,98.99345747),
('2025-08-05',1,'MACH-01',1200,120,972,1944,97,76.95833333,90,90,95.01028807),
('2025-08-05',2,'MACH-02',1200,108,1004.64,2009,60,81.21965157,91,92,97.01343952),
('2025-08-05',3,'MACH-03',1200,60,1071.6,2143,21,88.42491834,95,94,99.02006533),
('2025-08-06',1,'MACH-01',1200,72,1015.2,2030,41,82.89133005,94,90,97.98029557);
INSERT INTO public.oee_date ("date",id_machine,machine_no,loading_time,stop_time,net_operation_time,qty_output,qty_def
('2025-08-06',2,'MACH-02',1200,156,991.8,1984,99,78.52583165,87,95,95.01008065),
('2025-08-06',3,'MACH-03',1200,132,1003.92,2008,40,81.99346614,89,94,98.00796813),
('2025-08-07',1,'MACH-01',1200,132,961.2,1922,96,76.09916753,89,90,95.00520291),
('2025-08-07',2,'MACH-02',1200,72,1071.6,2143,43,87.50816612,94,95,97.9934671),
('2025-08-07',3,'MACH-03',1200,144,1003.2,2006,60,81.0995015,88,95,97.00897308),
('2025-08-08',1,'MACH-01',1200,156,991.8,1984,40,80.98366935,87,95,97.98387097),
('2025-08-08',2,'MACH-02',1200,120,972,1944,19,80.20833333,90,90,99.02263374),
('2025-08-08',3,'MACH-03',1200,132,971.88,1944,97,76.9488323,89,91,95.01028807),
('2025-08-11',1,'MACH-01',1200,96,993.6,1987,99,78.6745848,92,90,95.01761449),
('2025-08-11',2,'MACH-02',1200,120,993.6,1987,79,79.50800201,90,92,96.02415702);
INSERT INTO public.oee_date ("date",id_machine,machine_no,loading_time,stop_time,net_operation_time,qty_output,qty_def
('2025-08-11',3,'MACH-03',1200,96,1004.64,2009,60,81.21965157,92,91,97.01343952),
('2025-08-12',1,'MACH-01',1200,156,970.92,1942,39,79.28513388,87,93,97.99176107),
('2025-08-12',2,'MACH-02',1200,60,1083,2166,22,89.33333333,95,95,98.98430286),
('2025-08-12',3,'MACH-03',1200,144,1003.2,2006,40,81.933001,88,95,98.00598205),
('2025-08-13',1,'MACH-01',1200,132,1014.6,2029,81,81.17466732,89,95,96.00788566),
('2025-08-13',2,'MACH-02',1200,72,1026.48,2053,82,82.1233999,94,91,96.0058451),
('2025-08-13',3,'MACH-03',1200,84,1049.04,2098,21,86.54496663,93,94,98.99904671),
('2025-08-14',1,'MACH-01',1200,156,950.04,1900,95,75.2115,87,91,95),
('2025-08-14',2,'MACH-02',1200,156,981.36,1963,20,80.94678553,87,94,98.9811513),
('2025-08-14',3,'MACH-03',1200,60,1026,2052,82,82.08333333,95,90,96.00389864);
INSERT INTO public.oee_date ("date",id_machine,machine_no,loading_time,stop_time,net_operation_time,qty_output,qty_def
('2025-08-15',1,'MACH-01',1200,96,1015.68,2031,41,82.93136386,92,92,97.98129),
('2025-08-15',2,'MACH-02',1200,144,950.4,1901,57,76.82524987,88,90,97.00157812),
```

Import Data – intent_mapping

1. Open file: intent_mapping_data.sql

2. Run Query:



The screenshot shows a PostgreSQL client interface with the following details:

- Toolbar:** Includes Rollback, Auto Commit, Lock, and various connection and search icons.
- Connection:** Set to "oee" and "public@oee".
- Tab:** The main tab is titled "<oee> intent_mapping_data.sql" with a green icon.
- Code Content:** The code consists of three separate `INSERT INTO` statements for the `intent_mapping` table. Each statement defines a specific intent (e.g., `'get_total_loading_time_range_date_by_machine'`) and its corresponding SQL query to calculate metrics like loading time, OEE, downtime, defects, output, and availability.

```
INSERT INTO public.intent_mapping (intent,query,param_list,deskripsi) VALUES
('get_total_loading_time_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(loading_time) a
('get_oee_range_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,avg(oee) as average_oee FROM view_oee_date WH
('get_downtime_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(stop_time) as downtime FR
('get_total_defect_by_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM view_oee
('get_worst_oee_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,machine_no,oee FROM view_oee_date WHERE
('get_loading_time_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,loading_time FROM view_oee_date WHER
('get_total_output_range_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output FROM view_
('get_defect_by_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM view_oee_date
('get_output_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output FROM view_oee_da
('get_defect_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM view_oee_da
= INSERT INTO public.intent_mapping (intent,query,param_list,deskripsi) VALUES
('get_oee_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,oee FROM view_oee_date WHERE date
('get_oee_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,machine_no,oee,availability, performance,qual
('get_total_defect_range_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM view_
('get_defect_range_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM view_oee_da
('get_defect_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_defect) as defect FROM
('get_oee','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,ROUND(AVG(oee)::numeric, 2) AS oee,ROUND(AVG(availabilit
('get_output_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output FROM
('get_total_output','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output FROM view_oee_date WH
('get_total_loading_time_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,loading_time FROM view_oee_dat
('get_total_output_by_date','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output FROM view_oee
= INSERT INTO public.intent_mapping (intent,query,param_list,deskripsi) VALUES
('get_downtime_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,stop_time FROM view_oee_date WHERE date
('get_total_output_range_date_by_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,sum(qty_output) as output
('get_worst_oee_machine','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,machine_no,oee FROM view_oee_date WHERE da
('get_all_oee','SELECT TO_CHAR(date, ''YYYY-MM-DD'') AS date,machine_no,oee FROM view_oee_date WHERE date = '{{m
```

Thank You

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