

Setup Database PostgreSQL Dummy Data

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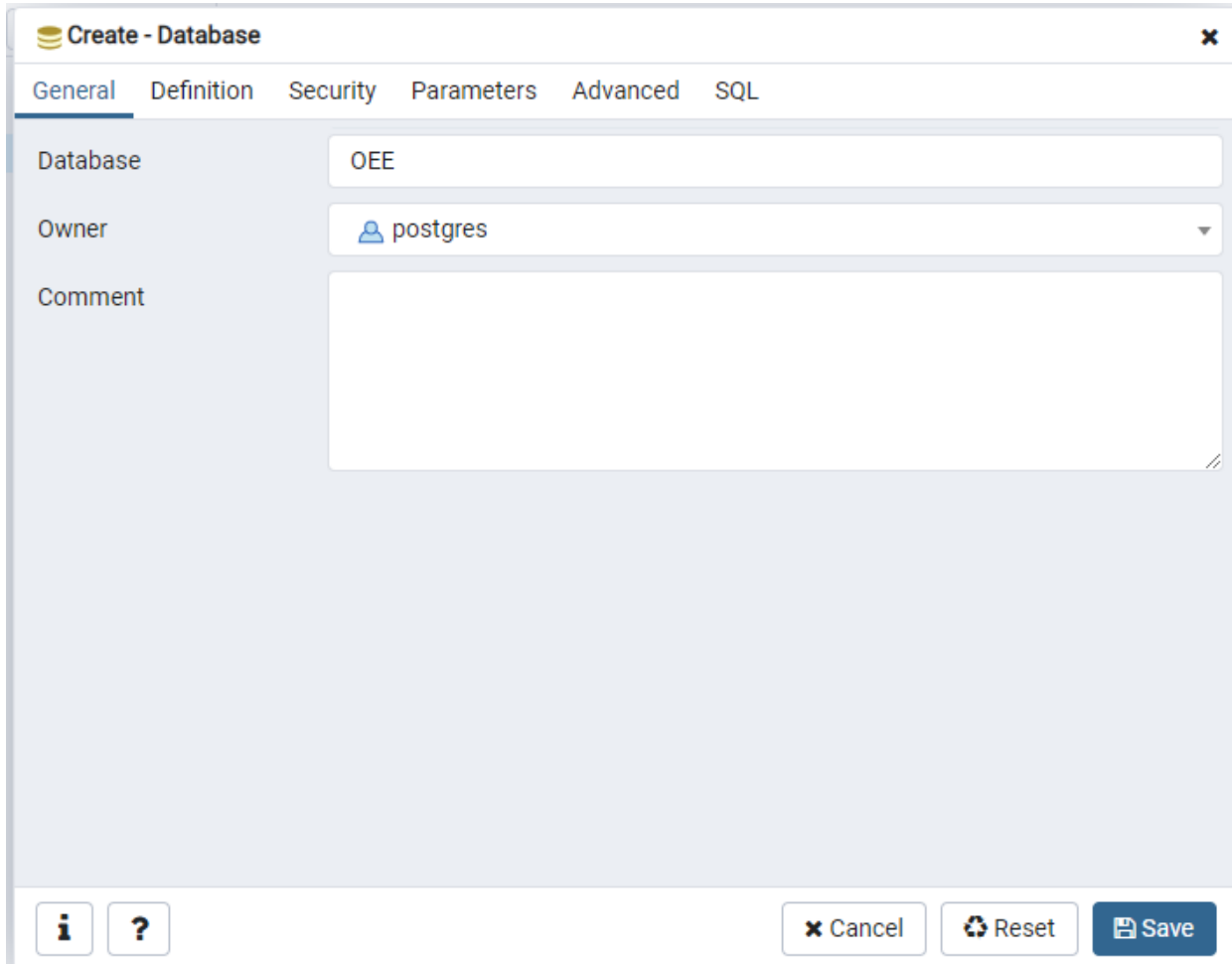
Installation

PostgreSQL Installation

1. Install PostgreSQL database in your Windows

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

2. Open pgAdmin, Make Database: OEE



The screenshot shows the 'Create - Database' dialog box in pgAdmin. The 'General' tab is selected, showing the following fields:

- Database:** A text input field containing 'OEE'.
- Owner:** A dropdown menu showing 'postgres' with a user icon.
- Comment:** A large text area for additional information.

At the bottom of the dialog, there are buttons for 'Cancel', 'Reset', and 'Save', along with information and help icons.

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
```

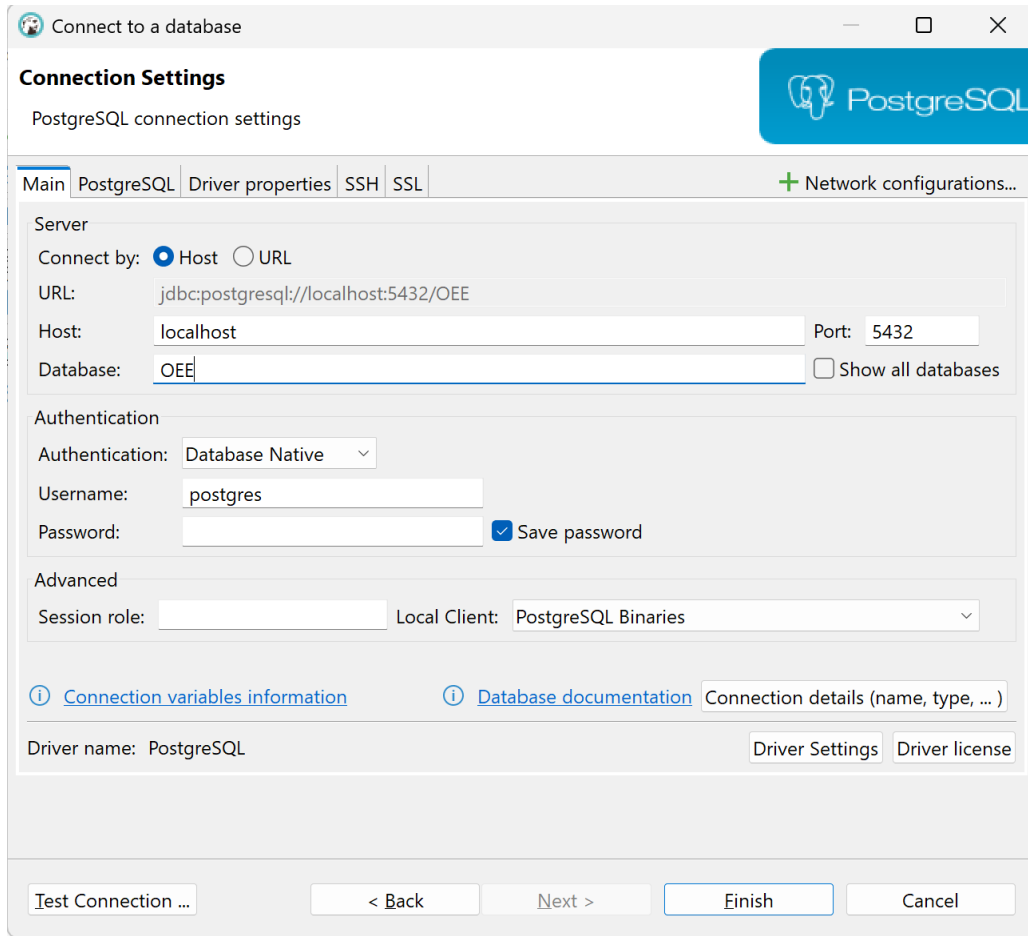
```
#client encoding = sql_ascii
```

DBeaver Installation

1. Install DBeaver

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

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



The screenshot shows the 'Connect to a database' dialog box in DBeaver, specifically for PostgreSQL. The window has a title bar with standard OS controls. Below the title bar, there's a 'Connection Settings' section with a PostgreSQL logo. The main area is divided into tabs: 'Main', 'PostgreSQL', 'Driver properties', 'SSH', and 'SSL'. The 'Main' tab is active, showing fields for 'Server' configuration. Under 'Server', there are radio buttons for 'Host' (selected) and 'URL'. The 'URL' field contains 'jdbc:postgresql://localhost:5432/OEE'. The 'Host' field contains 'localhost' and the 'Port' field contains '5432'. The 'Database' field contains 'OEE'. There is a checkbox for 'Show all databases'. Under 'Authentication', there is a dropdown for 'Authentication' set to 'Database Native', a 'Username' field with 'postgres', and a 'Password' field with a 'Save password' checkbox checked. Under 'Advanced', there is a 'Session role' field and a 'Local Client' dropdown set to 'PostgreSQL Binaries'. At the bottom, there are links for 'Connection variables information', 'Database documentation', and 'Connection details (name, type, ...)'. Below these are buttons for 'Driver name: PostgreSQL', 'Driver Settings', and 'Driver license'. At the very bottom, there are buttons for 'Test Connection ...', '< Back', 'Next >', 'Finish', and 'Cancel'.

Connect to a database

Connection Settings

PostgreSQL connection settings

Main PostgreSQL Driver properties SSH SSL + Network configurations...

Server

Connect by: ☒ Host ☐ URL

URL: jdbc:postgresql://localhost:5432/OEE

Host: localhost Port: 5432

Database: OEE ☐ Show all databases

Authentication

Authentication: Database Native

Username: postgres

Password: ☒ Save password

Advanced

Session role: Local Client: PostgreSQL Binaries

[Connection variables information](#) [Database documentation](#) Connection details (name, type, ...)

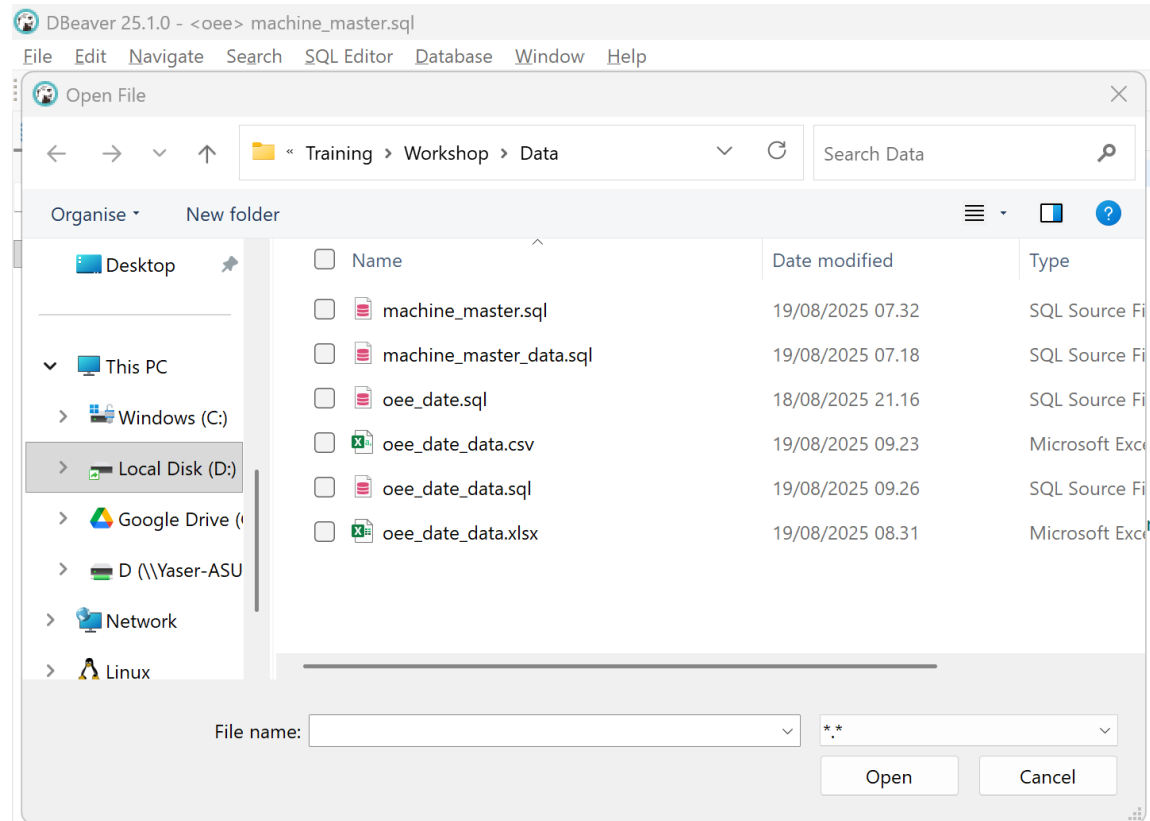
Driver name: PostgreSQL Driver Settings Driver license

Test Connection ... < Back Next > Finish Cancel

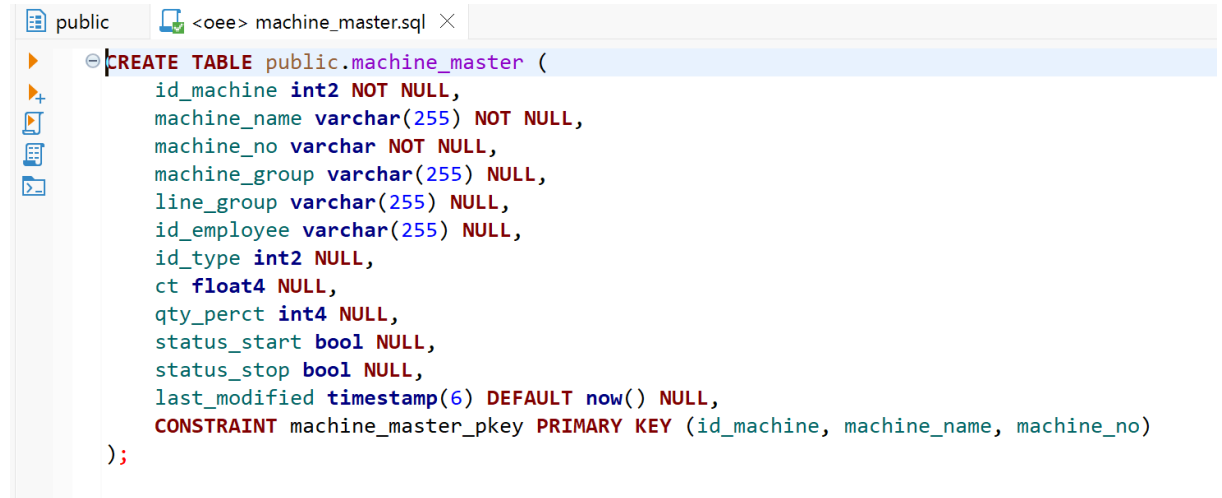
Create Tables Using Dbeaver or Pgadmin

Create Table – machine_master

1. Open file: machine_master.sql



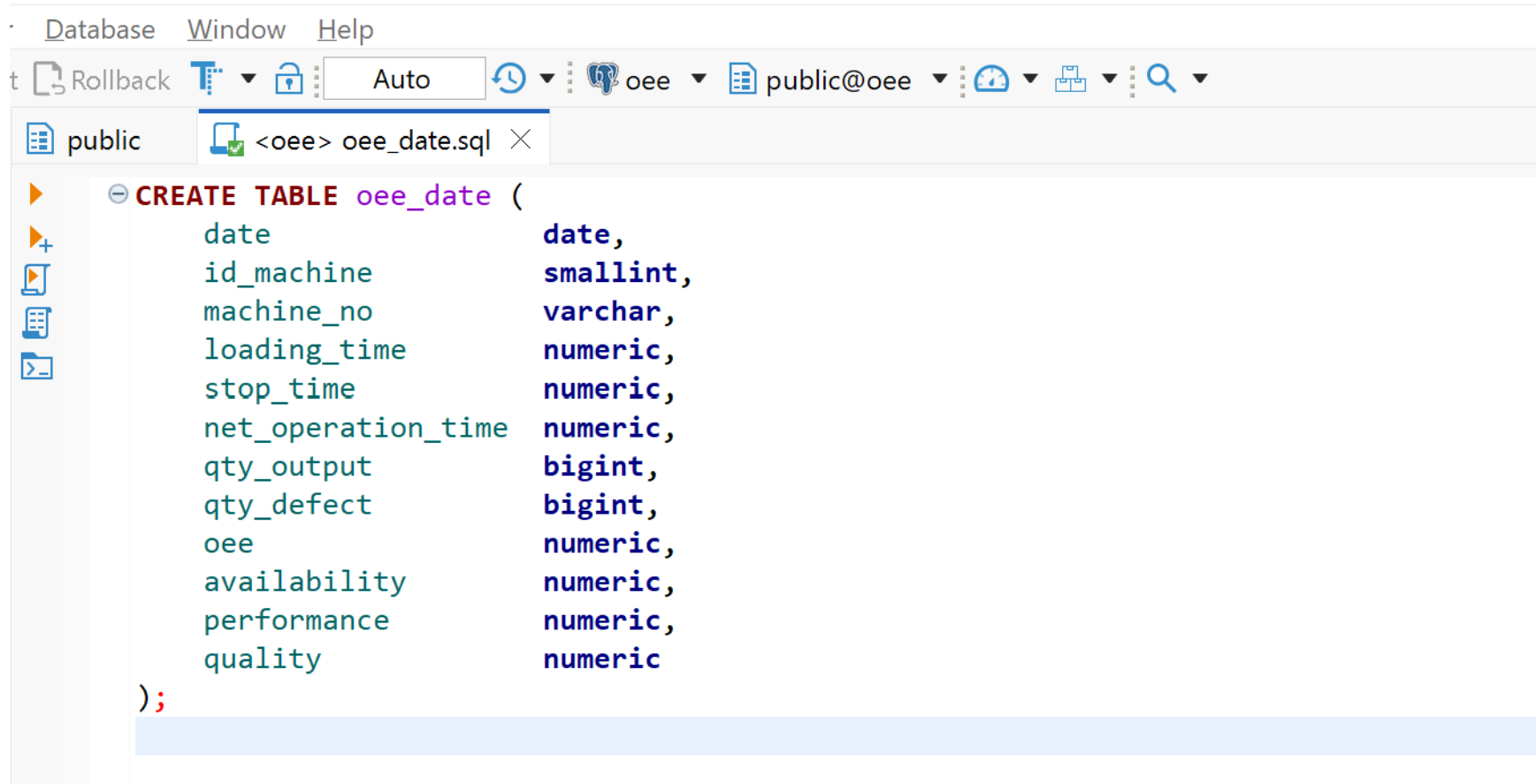
2. Run Query:



Create Table – oee_date

1. Open file: oee_date.sql

2. Run Query:

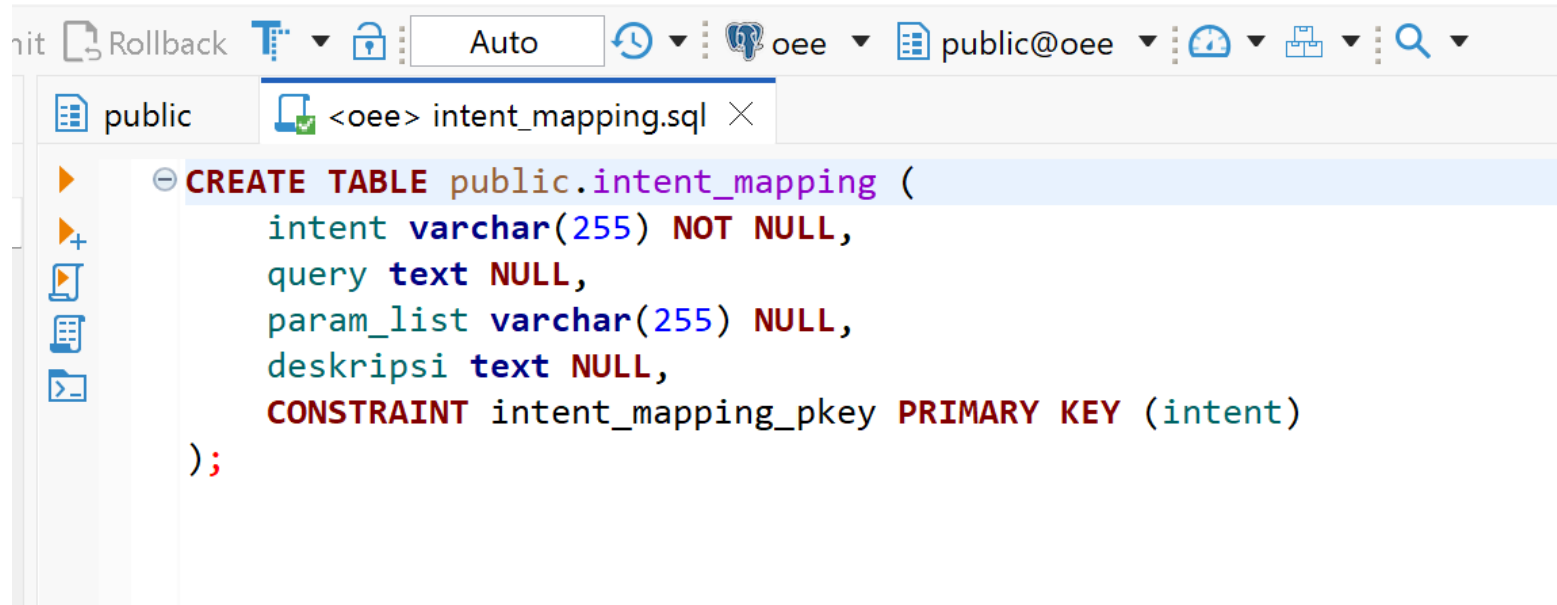


The screenshot shows a database management tool interface. The top menu bar includes 'Database', 'Window', and 'Help'. Below the menu bar is a toolbar with icons for 'Rollback', 'Auto', and other functions. The main window displays a SQL query to create a table named 'oee_date'. The query is as follows:

```
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:

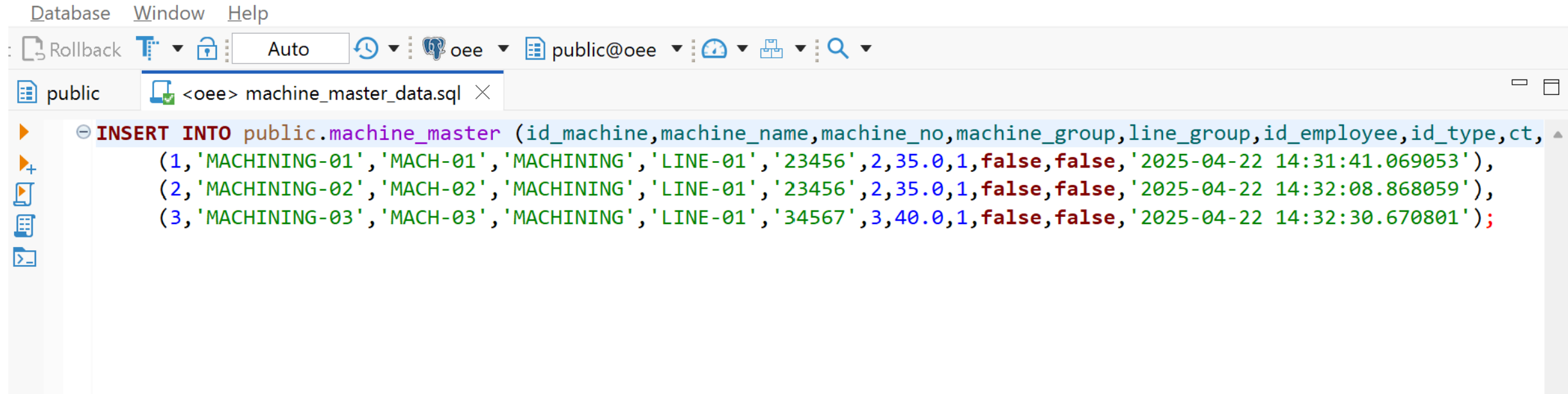


```
CREATE TABLE public.intent_mapping (  
    intent varchar(255) NOT NULL,  
    query text NULL,  
    param_list varchar(255) NULL,  
    deskripsi text NULL,  
    CONSTRAINT intent_mapping_pkey PRIMARY KEY (intent)  
);
```

Import Data Using Dbeaver or Pgadmin

Import Data – machine_master

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



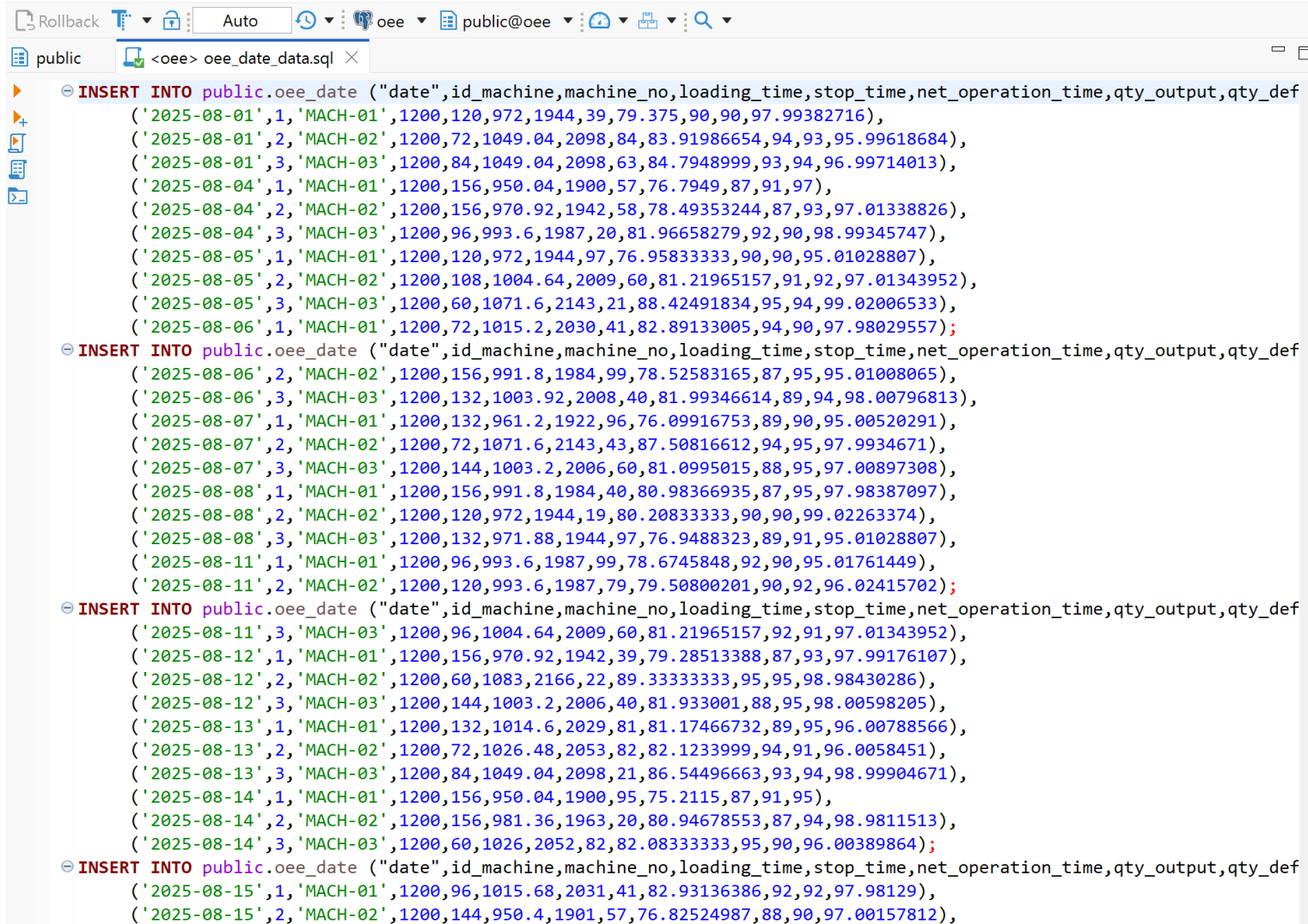
The screenshot shows a database client window with a menu bar (Database, Window, Help) and a toolbar. The toolbar includes buttons for Rollback, a SQL editor icon, a lock icon, an 'Auto' dropdown, a refresh icon, a connection icon labeled 'oeo', a user dropdown labeled 'public@oeo', a server icon, a schema icon, and a search icon. Below the toolbar, there are two tabs: 'public' and '<oeo> machine_master_data.sql'. The active tab shows an SQL query being executed, indicated by a play button icon on the left. The query is an INSERT statement into the 'public.machine_master' table. The query text is: `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'));`

```
Database Window Help
: Rollback T Auto oeo public@oeo
public <oeo> machine_master_data.sql
> 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

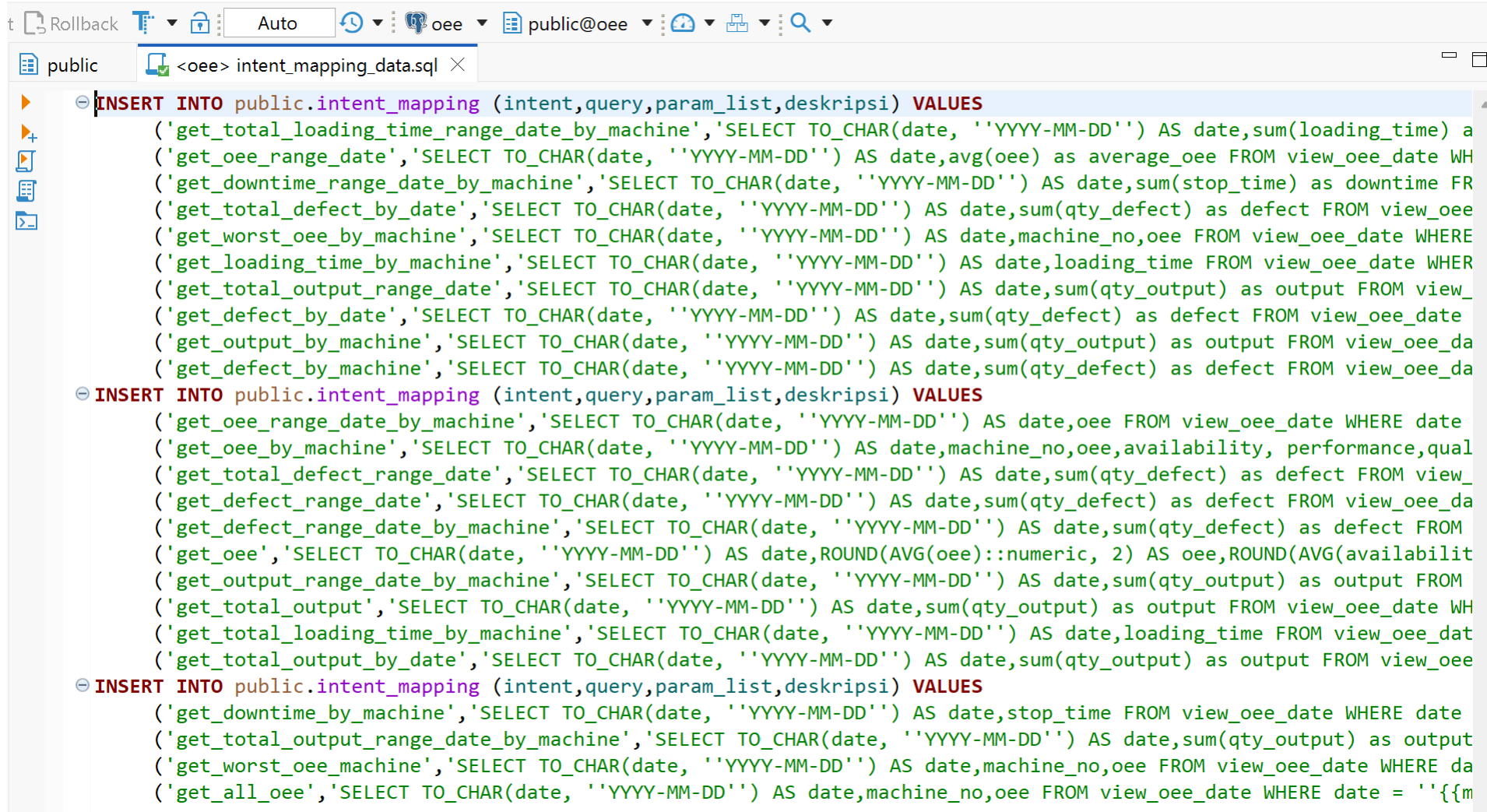
2. Run Query:



```
Rollback | T | Auto | oee | public@oeo | <oeo> oee_date_data.sql | 🔍
public | <oeo> oee_date_data.sql |
▶ INSERT INTO public.oeo_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.oeo_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.oeo_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.oeo_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 SQL IDE interface with a toolbar at the top containing icons for Rollback, Auto, and other functions. The main window displays three SQL queries, each starting with `INSERT INTO public.intent_mapping (intent,query,param_list,deskripsi) VALUES`. The queries are as follows:

```
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_oeo_range_date','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,avg(oeo) as average_oeo FROM view_oeo_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_oeo
('get_worst_oeo_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,machine_no,oeo FROM view_oeo_date WHERE
('get_loading_time_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,loading_time FROM view_oeo_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_oeo_date
('get_output_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,sum(qty_output) as output FROM view_oeo_da
('get_defect_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,sum(qty_defect) as defect FROM view_oeo_da

INSERT INTO public.intent_mapping (intent,query,param_list,deskripsi) VALUES
('get_oeo_range_date_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,oeo FROM view_oeo_date WHERE date
('get_oeo_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,machine_no,oeo,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_oeo_da
('get_defect_range_date_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,sum(qty_defect) as defect FROM
('get_oeo','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,ROUND(AVG(oeo)::numeric, 2) AS oeo,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_oeo_date WH
('get_total_loading_time_by_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,loading_time FROM view_oeo_dat
('get_total_output_by_date','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,sum(qty_output) as output FROM view_oeo

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_oeo_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_oeo_machine','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,machine_no,oeo FROM view_oeo_date WHERE da
('get_all_oeo','SELECT TO_CHAR(date, 'YYYY-MM-DD') AS date,machine_no,oeo FROM view_oeo_date WHERE date = '{{m
```

Thank You

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