ECE-GY 9941: Advanced Project
Fall 2021
Project Report

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Submission date: December 1, 2021

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a. Project background

The goal of this project is to learn how to create a robust and functional database system using modern methodologies and tools. I learned how to create an information management system that consists of an Online Transaction Processing (OLTP) database and a Data Warehouse (DW). Throughout the semester, I presented my progress, and, at the of the semester, I gave a presentation on the finished project.

My project has the following technical features:

- Both full and incremental ETL (Extract, Transform, and Load) database code to load data from OLTP database, transform it matching the DW schema design, and then load it to the DW database.

- Advanced database features such as External Tables, Partitioned Tables, function base indexes, PL/SQL(procedures, functions, packages, triggers).

- The DW has additional analysis and reporting tools for making business decisions.

- EDI (Electronic Data Interface), and SQL Loader (DB utility for loading data to database from a text file).

- Role based database security management.

- Data movement utilities (exports/import, SQL Loader etc.).

- The database application is hosted locally.

b. Business case

My project is called "We Offer Wellness" (WOW). WOW is a health information management system, which can be used by hospitals to perform transactions and store important information. WOW provides the following features:

- Store hospitals' contact information and organization.

- Store doctors' names, office phone numbers, personal phone numbers, specialties, and other info depending on the doctor's employment status.

- Store patient's health data, registration, hospital data, contact information, and their emergency contacts.

- Store qualitative and quantitative data on various diseases using the ICD notation.

- Store the descriptive information and results for laboratory, drug, and surgery, treatments.

- Generate invoice for services.

- Store payment information from insurance companies.

c. Project milestones

Below, you can see the complete timeline of the project.

- 9/14/2021: Project proposal

- 9/28/2021: OLTP database design.

- 10/10/2021: OLTP database implementation, data population, data validation, History tables.

- 10/24/2021: DW design and implementation, DW objects and partition table creation.

- 11/07/2021: ETL code.

- 11/21/2021: Reports and analytics from DW database.

- 12/12/2021: End-to-end tests, project demo.

- 12/14/2021: Final project report.

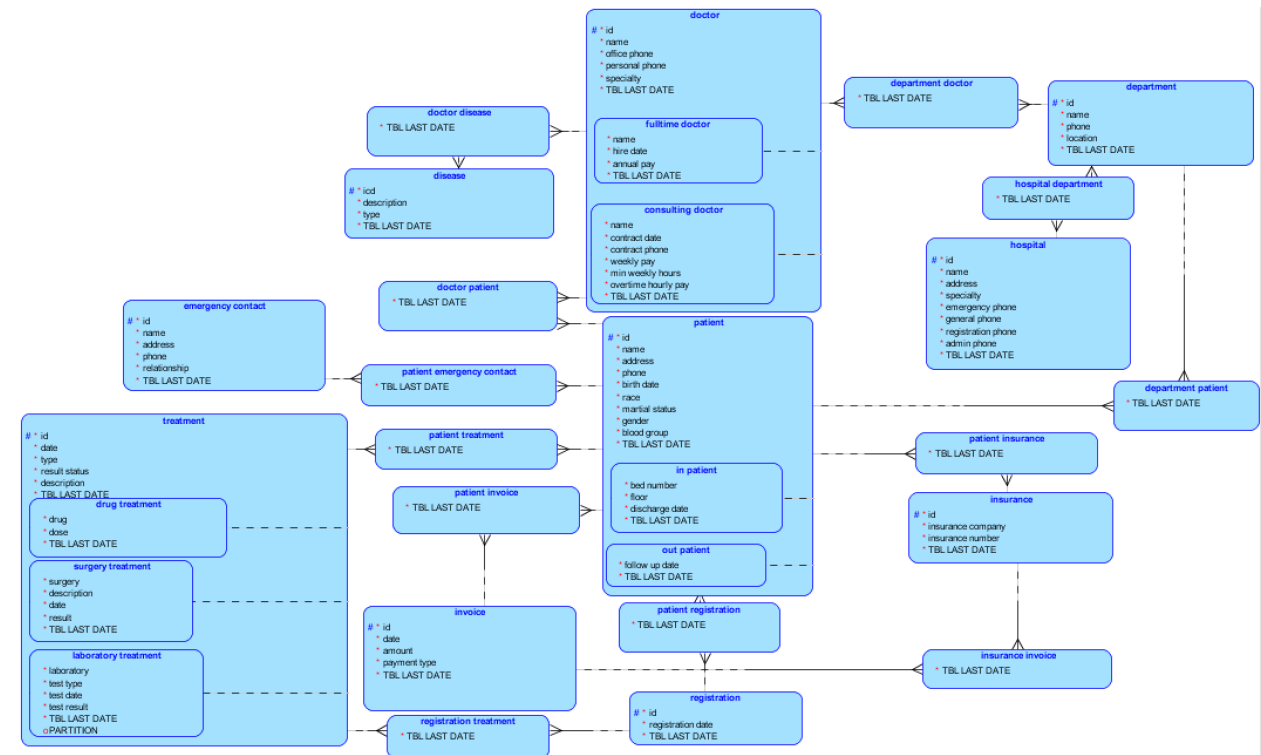- 12/19/2021: Final presentation.

d. Logical model (OLTP)

Figure 1: OLTP logical model.

e. Relational model (OLTP)
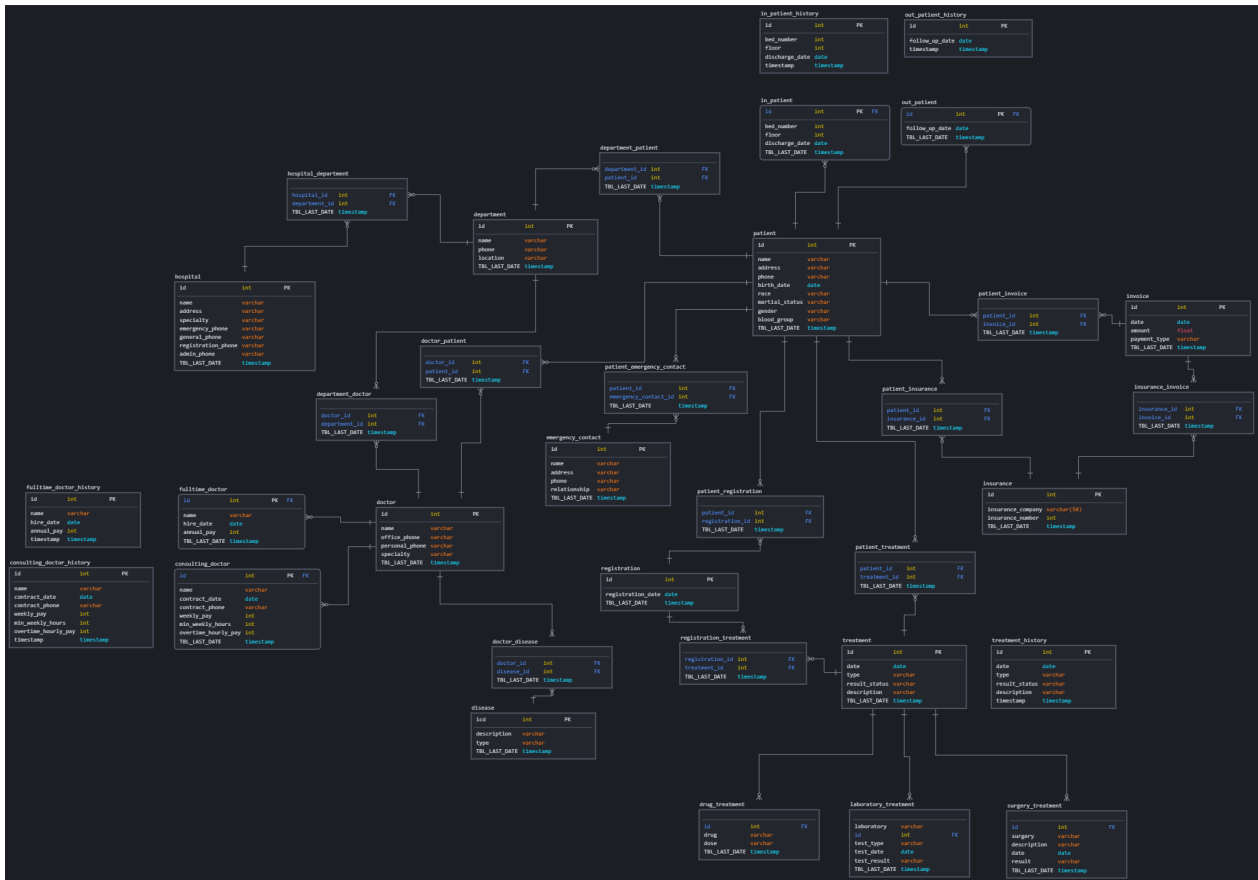
Figure 2: OLTP relational diagram.

f. Assumptions and Constraints

Assumptions

- A patient can have more than one emergency contact person.

- Patient can be in-patient or out-patient. For out-patient, WOW will store the follow-up date, and, for in-patient it will record the bed number, floor, and discharge date.

- A patient may have multiple registrations for different treatments

- A doctor may work at multiple hospitals.

- Doctors can be either full-time doctors or consulting doctors.

- A doctor can treat multiple patients, patients can be created by multiple doctors.

- A doctor can provide treatment for multiple diseases and each disease can be cured by multiple doctors

- A patient can have more than one type of the treatment.

Constraints

- I think the design of my database can be further optimized for industrial use, so it could handle the large data loads better.

g. Infrastructure

- Name and version of OLTP: PostgreSQL 14.0, compiled by Visual C++ build 1914, 64-bit

- DW database system: PostgreSQL 14.0, compiled by Visual C++ build 1914, 64-bit

- Reporting tool: pgAdmin, Excel

- Operating system: Windows 10

h. Record counts for all OLTP tables

Figure 3: Record counts.

Figure 4: Record counts.

i. DW logical and relational models

Logical model

patient
- * name
- * address
- * phone
- # * birth date
- * race
- * martial status
- * gender
- * blood group
- o bed number
- o floor
- o discharge date
- o follow up date
- o type
- * treatment registration date
- * emergency name
- * emergency address
- * emergency phone
- * emergency relationship
- * emergency id
- # * patient id

insurance invoice
- # * invoice id
- * insrurance company
- * insurance number
- o invoice date
- o invoice amount
- o invoice payment type
- * insurance id

treatment
- # * treatment id
- * date
- * type
- * result status
- * description
- o laboratory treatment
- o lab test type
- o lab test date
- o lab test result
- o drug
- o drug dose
- o surgery
- o surgery description
- o surgery date
- o surgery result

hospital
- * name
- * address
- * specialty
- * emergency phone
- * registration phone
- * admin phone
- * department name
- * department location
- # * hospital id
- # * department id

doctor
- * name
- * office phone
- * personal phone
- * specialty
- o hire date
- o annual pay
- o contract date
- o contract phone
- o weekly pay
- o min weekly hours
- o overtime hourly pay
- * disease description
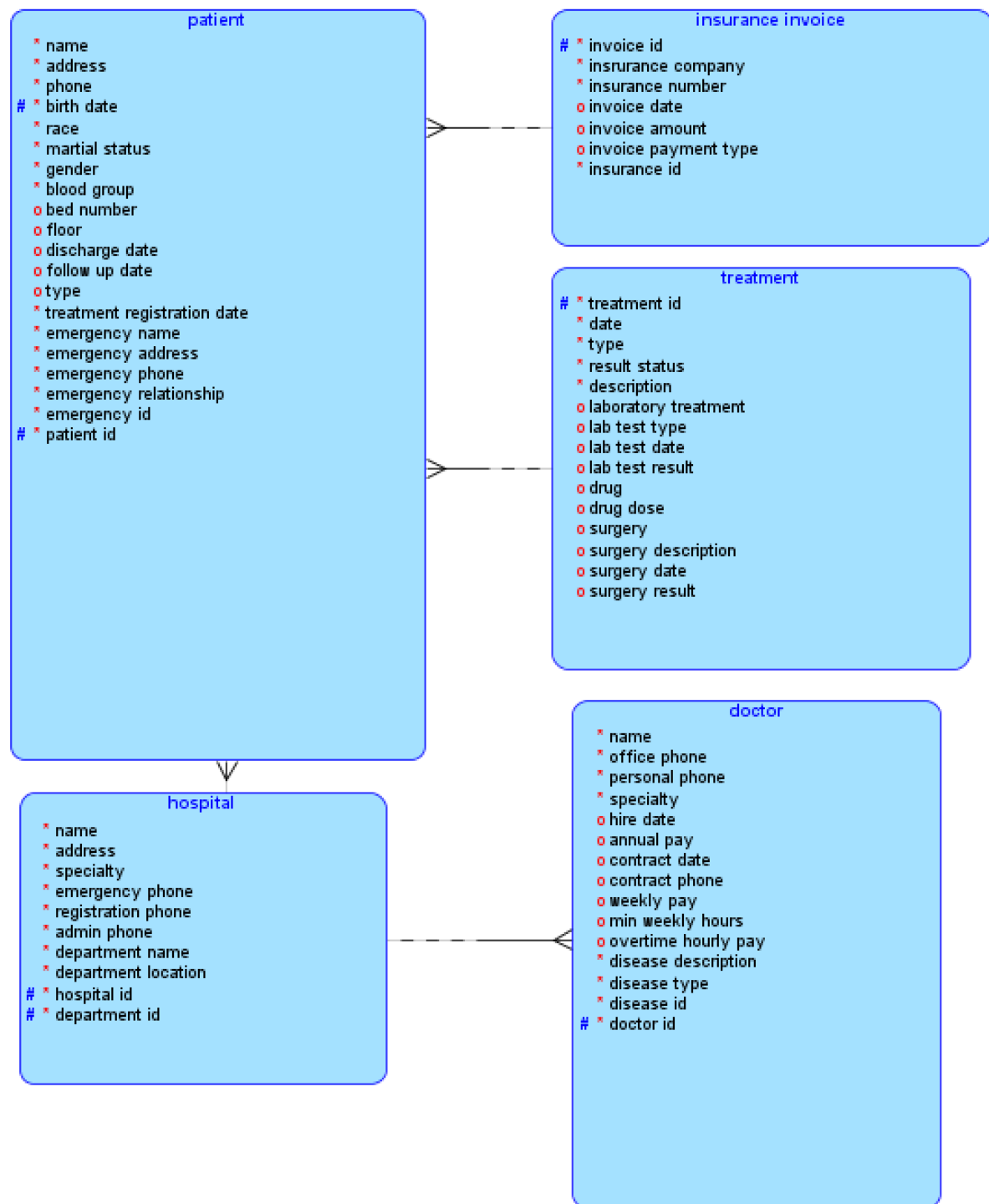- * disease type
- * disease id
- # * doctor id

Figure 5: DW logical model.
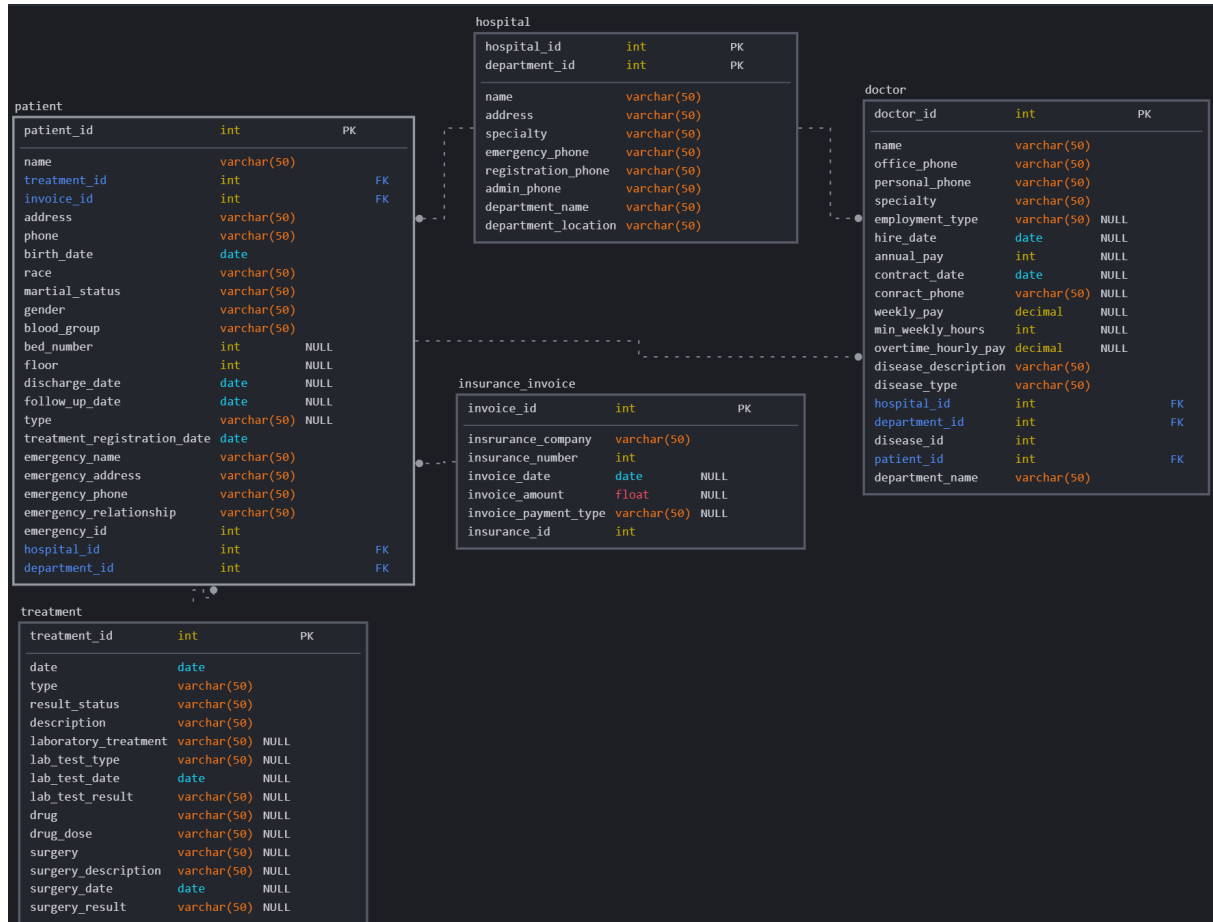
Relational model

Figure 6: DW relational model.

j. Summary of ETL approach

Step 1: transform and extract the relevant data, based on the timestamp, to an external table

```
01 | COPY ( WITH invoice1 as (
02 | SELECT distinct * FROM invoice a join insurance_invoice b
03 | on a.id = b.invoice_id
04 | WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 month')
05 | )
06 | SELECT distinct a.invoice_id, b.insurance_company, b.insurance_number, a
         .date as "invoice_date",
07 | a.amount as "invoice_amount", a.payment_type as "invoice_payment_type",
         b.id as "insurance_id"
08 | FROM invoice1 a join insurance b on a.insurance_id = b.id
09 | ) TO '/tmp/insurance_invoice.csv' WITH (FORMAT CSV, HEADER);
```

Step 2: fill the corresponding DW stage table with the data from an external table

```
01 | COPY stg_dw_insurance_invoice FROM '/tmp/insurance_invoice.csv'
         DELIMITER ',' CSV HEADER QUOTE '"' NULL '';
```

Step 3: create a stored loading SQL procedure and call it

```
01 | create or replace PROCEDURE  load_dw_insurance_invoice()
02 | language plpgsql as $$
03 | DECLARE
04 |         dcnt integer := 0;
05 |         icnt integer := 0;
06 |         err_code int;
07 |         err_msg text;
08 |         c record;
09 | BEGIN
10 | for c in execute 'select * from stg_dw_insurance_invoice'
11 | loop
12 |     delete from dw_insurance_invoice where invoice_id=c.invoice_id and
         insurance_id=c.insurance_id;
13 |    dcnt := dcnt+1;
14 |     INSERT INTO dw_insurance_invoice
15 |     VALUES (c.invoice_id, c.insurance_company, c.insurance_number, c.
         invoice_date, c.invoice_amount, c.invoice_payment_type, c.
         insurance_id, NOW());
16 |     icnt := icnt+1;
17 |     raise notice
18 |     'Total Deleted Record: % Total Inserted Records: %', dcnt, icnt;
19 | end loop;
20 |     raise notice
21 |     'Total Deleted Record: % Total Inserted Records: %', dcnt, icnt;
22 | EXCEPTION
23 |    WHEN OTHERS THEN
24 |         err_code := SQLSTATE;
25 |         err_msg  := SQLERRM;
26 |            raise notice
27 |         'Error code %: %', err_code, err_msg;
28 | END;$$
```

k. SQL and data analysis from DW systems

Invoice amount over time

```
01 |   select insurance_company, invoice_date, invoice_amount
02 |   from dw_insurance_invoice;
```
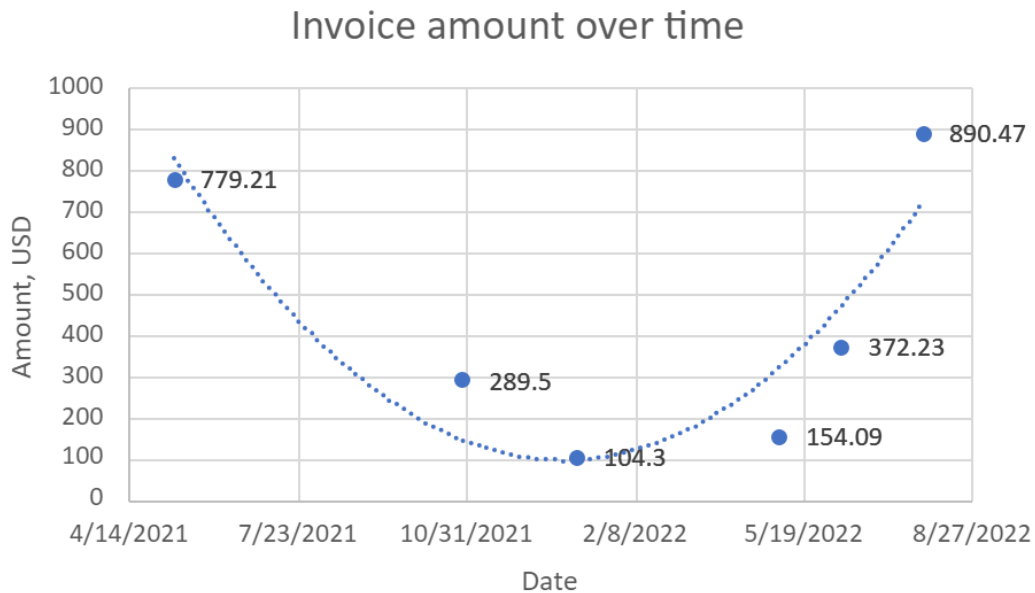
Figure 7: Invoice amount versus date chart.

Consulting doctors with higher than average weekly pay.

```
01 |   select name, weekly_pay
02 |   from stg_dw_doctor
03 |   where weekly_pay > (
04 |           select avg(weekly_pay)
05 |           from stg_dw_doctor
06 |   )
```

	name character varying (50)	weekly_pay numeric
1	Zachary Foley	2830
2	Wanda Mcintosh	3798

Figure 8: Consulting doctors with higher than average weekly pay.

l. Lesson learned

Working on this project has taught me the following skills:

- Designing and building a complex OLTP database

- Creating history tables

- Developing a DW database

- Programming full and incremental ETL

- How to effectively generate large amounts of synthetic data

- Carefully reading the AWS user agreement to avoid getting charged 200$ for barely using their database hosting services.

m. Appendix

OLTP DDL code

```
01 |   -- ************** SqlDBM: PostgreSQL ***************;
02 |   -- **************************************************;
03 |
04 |
05 |   -- *********************************** treatment
06 |
07 |   CREATE TABLE treatment
08 |   (
09 |    "id"            int NOT NULL,
10 |    "date"          date NOT NULL,
11 |    type           varchar NOT NULL,
12 |    result_status  varchar NOT NULL,
13 |    description    varchar NOT NULL,
14 |    TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
15 |    CONSTRAINT PK_374 PRIMARY KEY ( "id" )
16 |   );
17 |
18 |
19 |
20 |   -- *********************************** treatment - history
21 |   CREATE TABLE treatment_history
22 |   (
23 |    "id"            int NOT NULL,
24 |    "timestamp" timestamp NOT NULL DEFAULT clock_timestamp(),
25 |    "date"          date NOT NULL,
26 |    type           varchar NOT NULL,
27 |    result_status  varchar NOT NULL,
28 |    description    varchar NOT NULL
29 |   );
30 |
31 |   CREATE OR REPLACE FUNCTION treatment_history_trigger()
32 |     RETURNS trigger AS
33 |   $BODY$
34 |     DECLARE
35 |       table_name text;
36 |     BEGIN
37 |       table_name := 'treatment_history_' || to_char(CURRENT_DATE, 'yyyy_mm
       ');
38 |       IF NOT EXISTS (SELECT 1 FROM pg_class WHERE relname = table_name)
39 |       THEN
40 |         EXECUTE 'CREATE TABLE IF NOT EXISTS ' || table_name ||
41 |                 ' () INHERITS (treatment_history);';
42 |       END IF;
43 |       EXECUTE 'INSERT INTO ' || table_name ||
44 |               '(id, date, type, result_status, description) VALUES ($1.id,
       $1.date, $1.type, $1.result_status, $1.description);' USING NEW;
45 |       RETURN NEW;
46 |     END
47 |   $BODY$
48 |     LANGUAGE plpgsql;
49 |
50 |   CREATE TRIGGER treatment_history_trigger
51 |   AFTER INSERT OR UPDATE ON treatment FOR EACH ROW
```

16

```sql
 52 |   EXECUTE PROCEDURE treatment_history_trigger();
 53 |
 54 |
 55 |
 56 |
 57 |   -- ***************************************** registration
 58 |
 59 |   CREATE TABLE registration
 60 |   (
 61 |    "id"              int NOT NULL,
 62 |    registration_date date NOT NULL,
 63 |    TBL_LAST_DATE     timestamp NOT NULL DEFAULT current_timestamp,
 64 |    CONSTRAINT PK_347 PRIMARY KEY ( "id" )
 65 |   );
 66 |
 67 |
 68 |
 69 |
 70 |
 71 |
 72 |   -- ***************************************** patient with history table
 73 |
 74 |   CREATE TABLE patient
 75 |   (
 76 |    "id"             int NOT NULL,
 77 |    name            varchar NOT NULL,
 78 |    address         varchar NOT NULL,
 79 |    phone           varchar NOT NULL,
 80 |    birth_date      date NOT NULL,
 81 |    race            varchar NOT NULL,
 82 |    martial_status  varchar NOT NULL,
 83 |    gender          varchar NOT NULL,
 84 |    blood_group     varchar NOT NULL,
 85 |    TBL_LAST_DATE   timestamp NOT NULL DEFAULT current_timestamp,
 86 |    CONSTRAINT PK_322 PRIMARY KEY ( "id" )
 87 |   );
 88 |
 89 |
 90 |
 91 |
 92 |
 93 |
 94 |
 95 |
 96 |   -- ***************************************** invoice
 97 |
 98 |   CREATE TABLE invoice
 99 |   (
100 |    "id"             int NOT NULL,
101 |    "date"           date NOT NULL,
102 |    amount          float NOT NULL,
103 |    payment_type    varchar NOT NULL,
104 |    TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
105 |    CONSTRAINT PK_350 PRIMARY KEY ( "id" )
106 |   );
107 |
108 |
109 |
```

```
110 |
111 |
112 |
113 |
114 |
115 |    -- ************************************** insurance
116 |
117 |    CREATE TABLE insurance
118 |    (
119 |     "id"               int NOT NULL,
120 |     insurance_company varchar(50) NOT NULL,
121 |     insurance_number  int NOT NULL,
122 |     TBL_LAST_DATE     timestamp NOT NULL,
123 |     CONSTRAINT PK_430 PRIMARY KEY ( "id" )
124 |    );
125 |
126 |
127 |
128 |
129 |
130 |
131 |
132 |
133 |    -- ************************************** hospital
134 |
135 |    CREATE TABLE hospital
136 |    (
137 |     "id"                int NOT NULL,
138 |     name               varchar NOT NULL,
139 |     address            varchar NOT NULL,
140 |     specialty          varchar NOT NULL,
141 |     emergency_phone    varchar NOT NULL,
142 |     general_phone      varchar NOT NULL,
143 |     registration_phone varchar NOT NULL,
144 |     admin_phone        varchar NOT NULL,
145 |     TBL_LAST_DATE      timestamp NOT NULL DEFAULT current_timestamp,
146 |     CONSTRAINT PK_hospital PRIMARY KEY ( "id" )
147 |    );
148 |
149 |
150 |
151 |
152 |
153 |
154 |
155 |
156 |    -- ************************************** emergency_contact
157 |
158 |    CREATE TABLE emergency_contact
159 |    (
160 |     "id"           int NOT NULL,
161 |     name          varchar NOT NULL,
162 |     address       varchar NOT NULL,
163 |     phone         varchar NOT NULL,
164 |     relationship  varchar NOT NULL,
165 |     TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
166 |     CONSTRAINT PK_365 PRIMARY KEY ( "id" )
167 |    );
```

18

```
168 |
169 |
170 |
171 |
172 |
173 |
174 |
175 |
176 | -- *************************************** doctor
177 |
178 | CREATE TABLE doctor
179 | (
180 |  "id"            int NOT NULL,
181 |  name           varchar NOT NULL,
182 |  office_phone   varchar NOT NULL,
183 |  personal_phone varchar NOT NULL,
184 |  specialty      varchar NOT NULL,
185 |  TBL_LAST_DATE  timestamp NOT NULL DEFAULT current_timestamp,
186 |  CONSTRAINT PK_291 PRIMARY KEY ( "id" )
187 | );
188 |
189 |
190 |
191 |
192 |
193 |
194 |
195 |
196 | -- *************************************** disease
197 |
198 | CREATE TABLE disease
199 | (
200 |  icd           int NOT NULL,
201 |  description   varchar NOT NULL,
202 |  type          varchar NOT NULL,
203 |  TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
204 |  CONSTRAINT PK_248 PRIMARY KEY ( icd )
205 | );
206 |
207 |
208 |
209 |
210 |
211 |
212 |
213 |
214 | -- *************************************** department
215 |
216 | CREATE TABLE department
217 | (
218 |  "id"           int NOT NULL,
219 |  name          varchar NOT NULL,
220 |  phone         varchar NOT NULL,
221 |  location      varchar NOT NULL,
222 |  TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
223 |  CONSTRAINT PK_286 PRIMARY KEY ( "id" )
224 | );
225 |
```

```sql
226 |
227 |
228 |
229 |
230 | -- ***************************************** registration_treatment
231 |
232 | CREATE TABLE registration_treatment
233 | (
234 |  registration_id int NOT NULL,
235 |  treatment_id    int NOT NULL,
236 |  TBL_LAST_DATE   timestamp NOT NULL,
237 |  CONSTRAINT FK_415 FOREIGN KEY ( registration_id ) REFERENCES
          registration ( "id" ),
238 |  CONSTRAINT FK_418 FOREIGN KEY ( treatment_id ) REFERENCES treatment ( "
          id" )
239 | );
240 |
241 | CREATE INDEX fkIdx_417 ON registration_treatment
242 | (
243 |  registration_id
244 | );
245 |
246 | CREATE INDEX fkIdx_420 ON registration_treatment
247 | (
248 |  treatment_id
249 | );
250 |
251 |
252 |
253 |
254 |
255 |
256 |
257 |
258 | -- ***************************************** patient_treatment
259 |
260 | CREATE TABLE patient_treatment
261 | (
262 |  patient_id    int NOT NULL,
263 |  treatment_id  int NOT NULL,
264 |  TBL_LAST_DATE timestamp NOT NULL,
265 |  CONSTRAINT FK_370 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
          ),
266 |  CONSTRAINT FK_387 FOREIGN KEY ( treatment_id ) REFERENCES treatment ( "
          id" )
267 | );
268 |
269 | CREATE INDEX fkIdx_372 ON patient_treatment
270 | (
271 |  patient_id
272 | );
273 |
274 | CREATE INDEX fkIdx_389 ON patient_treatment
275 | (
276 |  treatment_id
277 | );
278 |
279 |
```

```
280 |
281 |
282 |
283 |
284 |
285 |
286 |   -- ************************************** patient_registration
287 |
288 |   CREATE TABLE patient_registration
289 |   (
290 |    patient_id      int NOT NULL,
291 |    registration_id int NOT NULL,
292 |    TBL_LAST_DATE   timestamp NOT NULL,
293 |    CONSTRAINT FK_407 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
           ),
294 |    CONSTRAINT FK_410 FOREIGN KEY ( registration_id ) REFERENCES
           registration ( "id" )
295 |   );
296 |
297 |   CREATE INDEX fkIdx_409 ON patient_registration
298 |   (
299 |    patient_id
300 |   );
301 |
302 |   CREATE INDEX fkIdx_412 ON patient_registration
303 |   (
304 |    registration_id
305 |   );
306 |
307 |
308 |
309 |
310 |
311 |
312 |
313 |
314 |   -- ************************************** patient_invoice
315 |
316 |   CREATE TABLE patient_invoice
317 |   (
318 |    patient_id    int NOT NULL,
319 |    invoice_id    int NOT NULL,
320 |    TBL_LAST_DATE timestamp NOT NULL,
321 |    CONSTRAINT FK_397 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
           ),
322 |    CONSTRAINT FK_400 FOREIGN KEY ( invoice_id ) REFERENCES invoice ( "id"
           )
323 |   );
324 |
325 |   CREATE INDEX fkIdx_399 ON patient_invoice
326 |   (
327 |    patient_id
328 |   );
329 |
330 |   CREATE INDEX fkIdx_402 ON patient_invoice
331 |   (
332 |    invoice_id
333 |   );
```

```
334 |
335 |
336 |
337 |
338 |
339 |
340 |
341 |
342 |  -- ************************************* patient_insurance
343 |
344 |  CREATE TABLE patient_insurance
345 |  (
346 |   patient_id    int NOT NULL,
347 |   insurance_id  int NOT NULL,
348 |   TBL_LAST_DATE timestamp NOT NULL,
349 |   CONSTRAINT FK_439 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
         ),
350 |   CONSTRAINT FK_442 FOREIGN KEY ( insurance_id ) REFERENCES insurance ( "
         id" )
351 |  );
352 |
353 |  CREATE INDEX fkIdx_441 ON patient_insurance
354 |  (
355 |   patient_id
356 |  );
357 |
358 |  CREATE INDEX fkIdx_444 ON patient_insurance
359 |  (
360 |   insurance_id
361 |  );
362 |
363 |
364 |
365 |
366 |
367 |
368 |
369 |
370 |  -- ************************************* patient_emergency_contact
371 |
372 |  CREATE TABLE patient_emergency_contact
373 |  (
374 |   patient_id           int NOT NULL,
375 |   emergency_contact_id int NOT NULL,
376 |   TBL_LAST_DATE        timestamp NOT NULL,
377 |   CONSTRAINT FK_360 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
         ),
378 |   CONSTRAINT FK_366 FOREIGN KEY ( emergency_contact_id ) REFERENCES
         emergency_contact ( "id" )
379 |  );
380 |
381 |  CREATE INDEX fkIdx_362 ON patient_emergency_contact
382 |  (
383 |   patient_id
384 |  );
385 |
386 |  CREATE INDEX fkIdx_368 ON patient_emergency_contact
387 |  (
```

```
388 |   emergency_contact_id
389 | );
390 |
391 |
392 | -- ************************************** in_patient
393 |
394 | CREATE TABLE in_patient
395 | (
396 |  "id"            int NOT NULL,
397 |  bed_number     int NOT NULL,
398 |  "floor"         int NOT NULL,
399 |  discharge_date date NOT NULL,
400 |  TBL_LAST_DATE  timestamp NOT NULL DEFAULT current_timestamp,
401 |  CONSTRAINT PK_467 PRIMARY KEY ( "id" ),
402 |  CONSTRAINT FK_in_patient_171 FOREIGN KEY ( "id" ) REFERENCES patient (
         "id" )
403 | );
404 |
405 |
406 | -- ************************************** in_patient - history
407 | CREATE TABLE in_patient_history (
408 |  "id"            int NOT NULL,
409 |  "timestamp" timestamp NOT NULL DEFAULT clock_timestamp(),
410 |  bed_number     int NOT NULL,
411 |  "floor"         int NOT NULL,
412 |  discharge_date date NOT NULL
413 | );
414 |
415 | CREATE OR REPLACE FUNCTION in_patient_history_trigger()
416 |   RETURNS trigger AS
417 | $BODY$
418 |   DECLARE
419 |     table_name text;
420 |   BEGIN
421 |     table_name := 'in_patient_history_' || to_char(CURRENT_DATE, '
         yyyy_mm');
422 |     IF NOT EXISTS (SELECT 1 FROM pg_class WHERE relname = table_name)
423 |     THEN
424 |       EXECUTE 'CREATE TABLE IF NOT EXISTS ' || table_name ||
425 |               ' () INHERITS (in_patient_history);';
426 |     END IF;
427 |     EXECUTE 'INSERT INTO ' || table_name ||
428 |             '(id, bed_number, floor, discharge_date) VALUES ($1.id, $1.
         bed_number, $1.floor, $1.discharge_date);' USING NEW;
429 |     RETURN NEW;
430 |   END
431 | $BODY$
432 |   LANGUAGE plpgsql;
433 |
434 | CREATE TRIGGER in_patient_history_trigger
435 | AFTER INSERT OR UPDATE ON in_patient FOR EACH ROW
436 | EXECUTE PROCEDURE in_patient_history_trigger();
437 |
438 |
439 | -- ************************************** out_patient
440 |
441 | CREATE TABLE out_patient
442 | (
```

```sql
443 |   "id"              int NOT NULL,
444 |   follow_up_date date NOT NULL,
445 |   TBL_LAST_DATE  timestamp NOT NULL DEFAULT current_timestamp,
446 |   CONSTRAINT PK_468 PRIMARY KEY ( "id" ),
447 |   CONSTRAINT FK_out_patient_173 FOREIGN KEY ( "id" ) REFERENCES patient (
          "id" )
448 | );
449 |
450 | -- ************************************* out_patient - history
451 | CREATE TABLE out_patient_history
452 | (
453 |  "id"              int NOT NULL,
454 |   "timestamp" timestamp NOT NULL DEFAULT clock_timestamp(),
455 |  follow_up_date date NOT NULL
456 | );
457 |
458 | CREATE OR REPLACE FUNCTION out_patient_history_trigger()
459 |   RETURNS trigger AS
460 | $BODY$
461 |   DECLARE
462 |     table_name text;
463 |   BEGIN
464 |     table_name := 'out_patient_history_' || to_char(CURRENT_DATE, '
        yyyy_mm');
465 |     IF NOT EXISTS (SELECT 1 FROM pg_class WHERE relname = table_name)
466 |     THEN
467 |       EXECUTE 'CREATE TABLE IF NOT EXISTS ' || table_name ||
468 |               ' () INHERITS (out_patient_history);';
469 |     END IF;
470 |     EXECUTE 'INSERT INTO ' || table_name ||
471 |             '(id, follow_up_date) VALUES ($1.id, $1.follow_up_date);'
        USING NEW;
472 |     RETURN NEW;
473 |   END
474 | $BODY$
475 |   LANGUAGE plpgsql;
476 |
477 | CREATE TRIGGER out_patient_history_trigger
478 | AFTER INSERT OR UPDATE ON out_patient FOR EACH ROW
479 | EXECUTE PROCEDURE out_patient_history_trigger();
480 |
481 | -- ************************************* insurance_invoice
482 |
483 | CREATE TABLE insurance_invoice
484 | (
485 |  insurance_id  int NOT NULL,
486 |  invoice_id    int NOT NULL,
487 |  TBL_LAST_DATE timestamp NOT NULL,
488 |  CONSTRAINT FK_447 FOREIGN KEY ( insurance_id ) REFERENCES insurance ( "
        id" ),
489 |  CONSTRAINT FK_450 FOREIGN KEY ( invoice_id ) REFERENCES invoice ( "id"
        )
490 | );
491 |
492 | CREATE INDEX fkIdx_449 ON insurance_invoice
493 | (
494 |  insurance_id
495 | );
```

```
496 |
497 |  CREATE INDEX fkIdx_452 ON insurance_invoice
498 |  (
499 |   invoice_id
500 |  );
501 |
502 |
503 |
504 |
505 |
506 |
507 |
508 |
509 |
510 |
511 |  -- ************************************ hospital_department
512 |
513 |  CREATE TABLE hospital_department
514 |  (
515 |   hospital_id   int NOT NULL,
516 |   department_id int NOT NULL,
517 |   TBL_LAST_DATE timestamp NOT NULL,
518 |   CONSTRAINT FK_293 FOREIGN KEY ( hospital_id ) REFERENCES hospital ( "id
          " ),
519 |   CONSTRAINT FK_299 FOREIGN KEY ( department_id ) REFERENCES department (
           "id" )
520 |  );
521 |
522 |  CREATE INDEX fkIdx_295 ON hospital_department
523 |  (
524 |   hospital_id
525 |  );
526 |
527 |  CREATE INDEX fkIdx_301 ON hospital_department
528 |  (
529 |   department_id
530 |  );
531 |
532 |
533 |
534 |
535 |
536 |
537 |
538 |
539 |  -- ************************************ fulltime_doctor
540 |
541 |  CREATE TABLE fulltime_doctor
542 |  (
543 |   name          varchar NOT NULL,
544 |   hire_date     date NOT NULL,
545 |   annual_pay    int NOT NULL,
546 |   TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
547 |   "id"          int NOT NULL,
548 |   CONSTRAINT PK_465 PRIMARY KEY ( "id" ),
549 |   CONSTRAINT FK_fulltime_doctor_165 FOREIGN KEY ( "id" ) REFERENCES
          doctor ( "id" )
550 |  );
```

```sql
551 |
552 |
553 |  -- ************************************* fulltime_doctor - history
554 |  CREATE TABLE fulltime_doctor_history
555 |  (
556 |   name            varchar NOT NULL,
557 |   "timestamp" timestamp NOT NULL DEFAULT clock_timestamp(),
558 |   hire_date       date NOT NULL,
559 |   annual_pay      int NOT NULL,
560 |   "id"            int primary key
561 |  );
562 |
563 |  CREATE OR REPLACE FUNCTION fulltime_doctor_history_trigger()
564 |    RETURNS trigger AS
565 |  $BODY$
566 |    DECLARE
567 |      table_name text;
568 |    BEGIN
569 |      table_name := 'fulltime_doctor_history_' || to_char(CURRENT_DATE, '
         yyyy_mm');
570 |      IF NOT EXISTS (SELECT 1 FROM pg_class WHERE relname = table_name)
571 |      THEN
572 |        EXECUTE 'CREATE TABLE IF NOT EXISTS ' || table_name ||
573 |               ' () INHERITS (fulltime_doctor_history);';
574 |      END IF;
575 |      EXECUTE 'INSERT INTO ' || table_name ||
576 |              '(id, name, hire_date, annual_pay) VALUES ($1.id, $1.name,
         $1.hire_date, $1.annual_pay);' USING NEW;
577 |      RETURN NEW;
578 |    END
579 |  $BODY$
580 |    LANGUAGE plpgsql;
581 |
582 |  CREATE TRIGGER fulltime_doctor_history_trigger
583 |  AFTER INSERT OR UPDATE ON fulltime_doctor FOR EACH ROW
584 |  EXECUTE PROCEDURE fulltime_doctor_history_trigger();
585 |
586 |
587 |
588 |
589 |
590 |
591 |  -- ************************************* doctor_patient
592 |
593 |  CREATE TABLE doctor_patient
594 |  (
595 |   doctor_id      int NOT NULL,
596 |   patient_id     int NOT NULL,
597 |   TBL_LAST_DATE timestamp NOT NULL,
598 |   CONSTRAINT FK_332 FOREIGN KEY ( doctor_id ) REFERENCES doctor ( "id" ),
599 |   CONSTRAINT FK_335 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
         )
600 |  );
601 |
602 |  CREATE INDEX fkIdx_334 ON doctor_patient
603 |  (
604 |   doctor_id
605 |  );
```

```
606 |
607 |  CREATE INDEX fkIdx_337 ON doctor_patient
608 |  (
609 |   patient_id
610 |  );
611 |
612 |
613 |
614 |
615 |
616 |
617 |
618 |
619 |  -- ************************************* doctor_disease
620 |
621 |  CREATE TABLE doctor_disease
622 |  (
623 |   doctor_id      int NOT NULL,
624 |   disease_id     int NOT NULL,
625 |   TBL_LAST_DATE timestamp NOT NULL,
626 |   CONSTRAINT FK_243 FOREIGN KEY ( doctor_id ) REFERENCES doctor ( "id" ),
627 |   CONSTRAINT FK_246 FOREIGN KEY ( disease_id ) REFERENCES disease ( icd )
628 |  );
629 |
630 |  CREATE INDEX fkIdx_245 ON doctor_disease
631 |  (
632 |   doctor_id
633 |  );
634 |
635 |  CREATE INDEX fkIdx_249 ON doctor_disease
636 |  (
637 |   disease_id
638 |  );
639 |
640 |
641 |
642 |
643 |
644 |
645 |
646 |
647 |  -- ************************************* department_patient
648 |
649 |  CREATE TABLE department_patient
650 |  (
651 |   department_id int NOT NULL,
652 |   patient_id    int NOT NULL,
653 |   TBL_LAST_DATE timestamp NOT NULL,
654 |   CONSTRAINT FK_315 FOREIGN KEY ( department_id ) REFERENCES department (
           "id" ),
655 |   CONSTRAINT FK_319 FOREIGN KEY ( patient_id ) REFERENCES patient ( "id"
         )
656 |  );
657 |
658 |  CREATE INDEX fkIdx_317 ON department_patient
659 |  (
660 |   department_id
661 |  );
```

```sql
662 |
663 |  CREATE INDEX fkIdx_321 ON department_patient
664 |  (
665 |   patient_id
666 |  );
667 |
668 |
669 |
670 |
671 |
672 |
673 |
674 |
675 |  -- *************************************** department_doctor
676 |
677 |  CREATE TABLE department_doctor
678 |  (
679 |   doctor_id      int NOT NULL,
680 |   department_id int NOT NULL,
681 |   TBL_LAST_DATE timestamp NOT NULL,
682 |   CONSTRAINT FK_339 FOREIGN KEY ( doctor_id ) REFERENCES doctor ( "id" ),
683 |   CONSTRAINT FK_342 FOREIGN KEY ( department_id ) REFERENCES department (
          "id" )
684 |  );
685 |
686 |  CREATE INDEX fkIdx_341 ON department_doctor
687 |  (
688 |   doctor_id
689 |  );
690 |
691 |  CREATE INDEX fkIdx_344 ON department_doctor
692 |  (
693 |   department_id
694 |  );
695 |
696 |
697 |
698 |
699 |
700 |
701 |
702 |
703 |  -- *************************************** consulting_doctor
704 |
705 |  CREATE TABLE consulting_doctor
706 |  (
707 |   name                varchar NOT NULL,
708 |   contract_date       date NOT NULL,
709 |   contract_phone      varchar NOT NULL,
710 |   weekly_pay          int NOT NULL,
711 |   min_weekly_hours    int NOT NULL,
712 |   overtime_hourly_pay int NOT NULL,
713 |   TBL_LAST_DATE       timestamp NOT NULL DEFAULT current_timestamp,
714 |   "id"                int NOT NULL,
715 |   CONSTRAINT PK_466 PRIMARY KEY ( "id" ),
716 |   CONSTRAINT FK_consulting_doctor_167 FOREIGN KEY ( "id" ) REFERENCES
          doctor ( "id" )
717 |  );
```

28

```sql
-- *************************************** consulting_doctor – history
CREATE TABLE consulting_doctor_history
(
  name                varchar NOT NULL,
  "timestamp" timestamp NOT NULL DEFAULT clock_timestamp(),
  contract_date       date NOT NULL,
  contract_phone      varchar NOT NULL,
  weekly_pay          int NOT NULL,
  min_weekly_hours    int NOT NULL,
  overtime_hourly_pay int NOT NULL,
  "id"                int primary key
);

CREATE OR REPLACE FUNCTION consulting_doctor_history_trigger()
  RETURNS trigger AS
$BODY$
  DECLARE
    table_name text;
  BEGIN
    table_name := 'consulting_doctor_history_' || to_char(CURRENT_DATE,
      'yyyy_mm');
    IF NOT EXISTS (SELECT 1 FROM pg_class WHERE relname = table_name)
    THEN
      EXECUTE 'CREATE TABLE IF NOT EXISTS ' || table_name ||
             ' () INHERITS (consulting_doctor_history);';
    END IF;
    EXECUTE 'INSERT INTO ' || table_name ||
           '(id, name, contract_date, contract_phone, weekly_pay,
      min_weekly_hours, overtime_hourly_pay) VALUES ($1.id, $1.name, $1.
      contract_date, $1.contract_phone, $1.weekly_pay, $1.min_weekly_hours
      , $1.overtime_hourly_pay);' USING NEW;
    RETURN NEW;
  END
$BODY$
  LANGUAGE plpgsql;

CREATE TRIGGER consulting_doctor_history_trigger
AFTER INSERT OR UPDATE ON consulting_doctor FOR EACH ROW
EXECUTE PROCEDURE consulting_doctor_history_trigger();


-- *************************************** surgery_treatment

CREATE TABLE surgery_treatment
(
  "id"           int NOT NULL,
  surgery       varchar NOT NULL,
  description   varchar NOT NULL,
  "date"        date NOT NULL,
  "result"      varchar NOT NULL,
  TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
  CONSTRAINT PK_471 PRIMARY KEY ( "id" ),
```

```
771 |    CONSTRAINT FK_surgery_treatment_187 FOREIGN KEY ( "id" ) REFERENCES
           treatment ( "id" )
772 |  );
773 |
774 |
775 |
776 |
777 |
778 |
779 |
780 |
781 |  -- ************************************** laboratory_treatment
782 |
783 |  CREATE TABLE laboratory_treatment
784 |  (
785 |   laboratory    varchar NOT NULL,
786 |   test_type     varchar NOT NULL,
787 |   test_date     date NOT NULL,
788 |   test_result   varchar NOT NULL,
789 |   TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
790 |   "id"          int NOT NULL,
791 |   CONSTRAINT PK_469 PRIMARY KEY ( "id" ),
792 |   CONSTRAINT FK_laboratory_treatment_183 FOREIGN KEY ( "id" ) REFERENCES
           treatment ( "id" ),
793 |   PARTITION BY RANGE(test_date)
794 |  );
795 |
796 |
797 |
798 |
799 |
800 |
801 |
802 |
803 |  -- ************************************** drug_treatment
804 |
805 |  CREATE TABLE drug_treatment
806 |  (
807 |   "id"           int NOT NULL,
808 |   drug          varchar NOT NULL,
809 |   dose          varchar NOT NULL,
810 |   TBL_LAST_DATE timestamp NOT NULL DEFAULT current_timestamp,
811 |   CONSTRAINT PK_470 PRIMARY KEY ( "id" ),
812 |   CONSTRAINT FK_drug_treatment_185 FOREIGN KEY ( "id" ) REFERENCES
           treatment ( "id" )
813 |  );
814 |
815 |  -- ************************************** triggers (30)
816 |  CREATE OR REPLACE FUNCTION update_TBL_LAST_DATE_column()
817 |  RETURNS TRIGGER AS $$
818 |  BEGIN
819 |      NEW.TBL_LAST_DATE = now();
820 |      RETURN NEW;
821 |  END;
822 |  $$ language 'plpgsql';
823 |
824 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON hospital
           FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
```

```
825 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON department
            FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
826 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON doctor FOR
            EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
827 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            fulltime_doctor FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
828 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            consulting_doctor FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
829 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON patient FOR
            EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
830 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            emergency_contact FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
831 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON in_patient
            FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
832 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON out_patient
            FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
833 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            registration FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
834 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON disease FOR
            EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
835 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON treatment
            FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
836 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            laboratory_treatment FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
837 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            drug_treatment FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
838 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            surgery_treatment FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
839 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON invoice FOR
            EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
840 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            department_doctor FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
841 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            department_patient FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
842 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            doctor_disease FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
843 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            doctor_patient FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
844 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            hospital_department FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
845 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON insurance
            FOR EACH ROW EXECUTE PROCEDURE update_TBL_LAST_DATE_column();
846 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
            insurance_invoice FOR EACH ROW EXECUTE PROCEDURE
            update_TBL_LAST_DATE_column();
```

```
847 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         patient_emergency_contact FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
848 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         patient_insurance FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
849 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         patient_invoice FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
850 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         patient_registration FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
851 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         patient_treatment FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
852 |  CREATE TRIGGER update_TBL_LAST_DATE_modtime BEFORE UPDATE ON
         registration_treatment FOR EACH ROW EXECUTE PROCEDURE
         update_TBL_LAST_DATE_column();
```

OLTP DML code

```
01 | --
02 | -- Data for Name: doctor; Type: TABLE DATA; Schema: public; Owner:
        pg_database_owner
03 | --
04 |
05 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (1, 'Gregory Nelson', '(852)
        324-5075', '(448) 528-3451', 'hymenaeos.', '2021-12-30 09:57:03');
06 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (2, 'Scott Morris', '(306) 423-2286
        ', '(388) 658-6637', 'nec,', '2022-08-07 12:42:01');
07 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (3, 'Camden Dillon', '(506)
        643-2361', '(713) 514-1542', 'sagittis', '2021-07-27 14:08:26');
08 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (4, 'Jermaine Burt', '(787)
        244-2125', '(852) 443-2419', 'laoreet,', '2021-04-16 21:58:33');
09 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (5, 'Adrian Salazar', '(638)
        434-7144', '(863) 637-9129', 'odio.', '2022-05-16 22:12:32');
10 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (6, 'Odysseus Lowe', '(713)
        838-1278', '(853) 216-8823', 'eu', '2022-09-12 11:54:47');
11 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (7, 'Brett Gonzales', '(236)
        978-9155', '(614) 511-3564', 'mi,', '2021-04-05 01:05:33');
12 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (8, 'Ria Hopper', '(769) 524-4746',
         '(151) 573-1748', 'Integer', '2021-04-16 22:03:58');
13 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (9, 'Hayfa Mcleod', '(486) 600-4162
        ', '(338) 620-5778', 'dapibus', '2022-04-07 21:22:37');
14 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (10, 'Samson Carroll', '(698)
        838-7129', '(333) 335-2566', 'mauris,', '2021-12-19 22:37:41');
15 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (11, 'Irene Singleton', '(873)
        510-8531', '(310) 235-1378', 'eu', '2020-12-28 20:08:05');
16 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (12, 'Julian Bell', '(184) 261-8245
        ', '(474) 503-1794', 'elementum', '2021-04-15 09:21:11');
17 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (13, 'Cullen Williams', '(287)
        357-6264', '(621) 362-4103', 'ultricies', '2021-04-28 21:04:16');
18 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (14, 'Zachary Foley', '(180)
        954-6360', '(218) 485-6768', 'Morbi', '2022-04-30 01:51:52');
19 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (15, 'Wanda Mcintosh', '(843)
        314-2801', '(394) 578-2282', 'ante.', '2022-06-16 21:06:53');
20 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (16, 'Gary Brady', '(625) 342-8370'
        , '(130) 890-7260', 'nulla', '2022-01-23 01:30:38');
21 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
        specialty, tbl_last_date) VALUES (17, 'Octavia Mcdonald', '(384)
```

```
966-2388', '(630) 614-3343', 'elit', '2021-05-06 08:59:24');
22 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
       specialty, tbl_last_date) VALUES (18, 'Keelie Shelton', '(168)
       249-3869', '(842) 766-8988', 'ac', '2021-10-18 12:24:21');
23 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
       specialty, tbl_last_date) VALUES (19, 'Hedda Walton', '(721)
       571-4606', '(439) 763-3728', 'Vivamus', '2021-09-30 04:46:35');
24 | INSERT INTO public.doctor (id, name, office_phone, personal_phone,
       specialty, tbl_last_date) VALUES (20, 'Xyla Nash', '(223) 986-2736',
        '(351) 797-4775', 'rutrum', '2021-03-26 16:51:14');
25 |
26 | --
27 | -- Data for Name: consulting_doctor; Type: TABLE DATA; Schema: public;
       Owner: pg_database_owner
28 | --
29 |
30 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Molly Morrison', '2021-03-08', '(964)
       453-8553', 2420, 30, 41, '2022-04-21 16:59:44', 1);
31 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Hollee Franklin', '2021-05-19', '(693)
       323-8487', 1033, 32, 47, '2021-07-02 10:31:40', 2);
32 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Damon Crosby', '2022-08-27', '(421)
       544-4345', 1381, 39, 51, '2021-09-14 09:49:29', 3);
33 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Ila Conrad', '2022-01-04', '(371)
       835-3267', 2421, 27, 60, '2021-05-03 00:50:35', 4);
34 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Sarah Johnson', '2021-12-01', '(797)
       817-6198', 1889, 32, 52, '2022-10-22 03:00:12', 5);
35 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Rebekah Burke', '2021-10-05', '(881)
       576-5881', 4738, 24, 37, '2021-08-13 22:23:55', 11);
36 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Belle Henderson', '2021-09-15', '(353)
       381-6883', 4702, 32, 41, '2021-11-20 01:45:01', 12);
37 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Porter O''connor', '2021-05-25', '(709)
       258-8118', 2655, 34, 48, '2021-11-03 01:04:53', 13);
38 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Timothy Pugh', '2022-08-05', '(950)
       547-2226', 2830, 38, 47, '2021-12-29 23:43:22', 14);
39 | INSERT INTO public.consulting_doctor (name, contract_date,
       contract_phone, weekly_pay, min_weekly_hours, overtime_hourly_pay,
       tbl_last_date, id) VALUES ('Harper Lee', '2020-11-28', '(564)
       786-4435', 3798, 28, 35, '2021-12-15 13:28:37', 15);
40 |
41 | --
```

```sql
42 |  -- Data for Name: department; Type: TABLE DATA; Schema: public; Owner:
         pg_database_owner
43 |  --
44 |
45 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (1, 'tempor', '(961) 175-2953', '9815 Dapibus Ave', '
         2022-05-16 17:53:19');
46 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (2, 'non', '(645) 160-1616', 'Ap #338-6343 Nisi Street', '
         2021-07-29 08:43:31');
47 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (3, 'nisi', '(265) 194-1475', 'Ap #198-3847 Ac Avenue', '
         2022-05-12 09:25:50');
48 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (4, 'orci', '(263) 440-7782', '5685 Enim Road', '2021-12-02
         13:31:29');
49 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (5, 'nisl.', '(668) 887-1623', 'P.O. Box 419, 8991 Eleifend
         St.', '2022-06-12 22:13:50');
50 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (6, 'at,', '(992) 582-2475', 'Ap #868-7228 Suspendisse Av.',
         '2022-05-01 01:44:10');
51 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (7, 'Fusce', '(431) 698-8747', 'Ap #839-790 Mollis Street',
         '2022-03-31 01:53:46');
52 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (8, 'volutpat', '(667) 563-0153', '7908 Dictum Road', '
         2021-12-17 01:04:45');
53 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (9, 'Cras', '(564) 657-3747', '950-4300 Mattis Rd.', '
         2021-11-29 06:16:03');
54 |  INSERT INTO public.department (id, name, phone, location, tbl_last_date)
         VALUES (10, 'erat', '(798) 225-3542', '642-3779 Turpis. Rd.', '
         2022-01-09 14:33:24');
55 |
56 |  --
57 |  -- Data for Name: department_doctor; Type: TABLE DATA; Schema: public;
         Owner: pg_database_owner
58 |  --
59 |
60 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
61 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
62 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
63 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
64 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
65 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
66 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
67 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
68 |  INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
```

```
69 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');
70 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (11, 1, '2020-12-11 17:41:15');
71 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (12, 2, '2021-06-15 19:48:09');
72 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (13, 3, '2021-02-07 17:27:26');
73 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (14, 4, '2021-04-26 23:33:40');
74 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (15, 5, '2020-10-30 01:26:26');
75 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (16, 6, '2021-02-28 11:54:35');
76 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (17, 7, '2022-06-06 05:43:35');
77 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (18, 8, '2021-03-30 20:03:48');
78 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (19, 9, '2022-03-14 19:53:56');
79 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (20, 10, '2020-11-12 16:54:08');
80 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
81 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
82 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
83 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
84 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
85 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
86 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
87 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
88 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
89 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');
90 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (11, 1, '2020-12-11 17:41:15');
91 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (12, 2, '2021-06-15 19:48:09');
92 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (13, 3, '2021-02-07 17:27:26');
93 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (14, 4, '2021-04-26 23:33:40');
94 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (15, 5, '2020-10-30 01:26:26');
95 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (16, 6, '2021-02-28 11:54:35');
96 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (17, 7, '2022-06-06 05:43:35');
97 |   INSERT INTO public.department_doctor (doctor_id, department_id,
         tbl_last_date) VALUES (18, 8, '2021-03-30 20:03:48');
```

```
 98 |   INSERT INTO public.department_doctor (doctor_id, department_id,
        tbl_last_date) VALUES (19, 9, '2022-03-14 19:53:56');
 99 |   INSERT INTO public.department_doctor (doctor_id, department_id,
        tbl_last_date) VALUES (20, 10, '2020-11-12 16:54:08');
100 |
101 |   --
102 |   -- Data for Name: patient; Type: TABLE DATA; Schema: public; Owner:
        pg_database_owner
103 |   --
104 |
105 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (1, '
        Palmer Wooten', '297-5374 Ante. St.', '(232) 961-0623', '1945-08-19'
        , 'consectetuer', 'gravida.', 'in,', 'taciti', '2022-07-12 19:05:32'
        );
106 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (2, '
        Mechelle Rhodes', 'P.O. Box 156, 4558 Semper Road', '(364) 917-8481'
        , '1960-08-17', 'fermentum', 'Phasellus', 'pharetra.', 'orci,', '
        2022-01-11 06:07:24');
107 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (3, '
        Driscoll Love', 'P.O. Box 501, 8092 Fringilla Road', '(133) 385-7141
        ', '1945-03-10', 'orci,', 'ante,', 'ac', 'enim,', '2021-07-31
        13:04:52');
108 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (4, '
        Jeremy Shaw', '4956 Cras Rd.', '(915) 478-7856', '1972-05-06', '
        interdum.', 'a', 'risus,', 'vel', '2021-11-03 06:53:21');
109 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (5, '
        Skyler Salazar', '6511 Augue. St.', '(434) 215-6725', '1997-10-30',
        'vehicula', 'venenatis', 'rutrum', 'vitae', '2021-08-01 20:17:50');
110 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (6, '
        Eleanor Bowers', '919-7363 A St.', '(883) 634-5474', '1938-06-23', '
        dolor,', 'sollicitudin', 'aliquet', 'dolor', '2021-04-02 23:38:26');
111 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (7, 'Noel
         Tran', '553-5740 Mollis Street', '(222) 421-5940', '1955-05-15', '
        consequat', 'Nulla', 'dictum', 'ornare', '2021-07-31 01:45:14');
112 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (8, '
        Forrest Tanner', 'Ap #751-1234 Massa Av.', '(673) 322-2721', '
        1955-07-13', 'non', 'Aenean', 'Proin', 'bibendum', '2022-09-19
        01:31:38');
113 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (9, '
        Grace Reid', '9372 Luctus, Avenue', '(547) 648-3429', '1989-07-10',
        'Mauris', 'neque', 'nec,', 'iaculis', '2021-06-12 11:34:58');
114 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (10, '
        Demetrius Daniels', 'Ap #776-5805 Laoreet Avenue', '(447) 821-4817',
         '1969-05-19', 'purus', 'quam', 'Fusce', 'ultrices', '2021-04-14
        07:20:12');
115 |   INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (11, '
        Jessica Ramsey', 'P.O. Box 309, 3283 Interdum Av.', '(403) 182-8383'
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, '1929-07-18', 'ut', 'Phasellus', 'urna.', 'fermentum', '2021-02-26
    03:29:18');
116 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (12, '
        Hiroko Dillard', '6309 Diam St.', '(243) 241-6887', '1976-12-04', '
        libero.', 'libero.', 'eget,', 'leo.', '2022-01-28 20:45:19');
117 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (13, 'Tad
         Trevino', '432-2310 Parturient Street', '(444) 557-8734', '
        1942-08-23', 'semper.', 'volutpat', 'aliquet.', 'dignissim', '
        2021-01-26 14:03:42');
118 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (14, '
        Dorothy Barron', '577-9173 At Rd.', '(317) 626-3637', '1978-03-14',
        'risus.', 'magna.', 'Aliquam', 'vulputate,', '2021-02-25 05:56:12');
119 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (15, '
        Alana Lowe', '6520 Arcu. Rd.', '(679) 206-7216', '1936-11-15', 'in',
         'consectetuer', 'ligula', 'dolor,', '2022-06-26 19:47:42');
120 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (16, '
        Sasha Powers', 'P.O. Box 878, 1170 Diam. Road', '(773) 904-7564', '
        1967-11-10', 'lobortis', 'lobortis', 'nec,', 'consectetuer', '
        2021-05-27 16:25:46');
121 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (17, '
        Garrison Barnett', 'Ap #513-2582 Nunc Ave', '(818) 413-7844', '
        1932-01-22', 'vitae', 'lacinia', 'porttitor', 'aliquet', '2021-02-03
         22:58:08');
122 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (18, '
        Allegra Franks', '604-4259 Vitae, Ave', '(780) 714-9775', '
        1941-11-03', 'semper', 'tellus.', 'arcu', 'Proin', '2022-03-13
        20:31:37');
123 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (19, '
        Roth Rosales', '726-1706 Cras Road', '(340) 299-4145', '1955-02-16',
         'sit', 'elit', 'fringilla', 'Maecenas', '2022-09-27 18:11:17');
124 |  INSERT INTO public.patient (id, name, address, phone, birth_date, race,
        martial_status, gender, blood_group, tbl_last_date) VALUES (20, '
        Rooney Hickman', '739-1141 Proin Rd.', '(423) 670-8574', '1927-08-19
        ', 'facilisis', 'Cras', 'aliquam', 'est', '2022-01-04 06:34:50');
125 |
126 |  --
127 |  -- Data for Name: department_patient; Type: TABLE DATA; Schema: public;
        Owner: pg_database_owner
128 |  --
129 |
130 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
131 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
132 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
133 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
134 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
```

```
135 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
136 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
137 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
138 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
139 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');
140 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (10, 11, '2020-12-11 17:41:15');
141 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (9, 12, '2021-06-15 19:48:09');
142 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (8, 13, '2021-02-07 17:27:26');
143 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (7, 14, '2021-04-26 23:33:40');
144 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (6, 15, '2020-10-30 01:26:26');
145 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (5, 16, '2021-02-28 11:54:35');
146 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (4, 17, '2022-06-06 05:43:35');
147 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (3, 18, '2021-03-30 20:03:48');
148 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (2, 19, '2022-03-14 19:53:56');
149 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (1, 20, '2020-11-12 16:54:08');
150 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
151 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
152 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
153 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
154 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
155 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
156 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
157 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
158 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
159 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');
160 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (10, 11, '2020-12-11 17:41:15');
161 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (9, 12, '2021-06-15 19:48:09');
162 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (8, 13, '2021-02-07 17:27:26');
163 |  INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (7, 14, '2021-04-26 23:33:40');
```

```
164 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (6, 15, '2020-10-30 01:26:26');
165 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (5, 16, '2021-02-28 11:54:35');
166 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (4, 17, '2022-06-06 05:43:35');
167 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (3, 18, '2021-03-30 20:03:48');
168 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (2, 19, '2022-03-14 19:53:56');
169 |   INSERT INTO public.department_patient (department_id, patient_id,
        tbl_last_date) VALUES (1, 20, '2020-11-12 16:54:08');
170 |
171 |   --
172 |   -- Data for Name: disease; Type: TABLE DATA; Schema: public; Owner:
        pg_database_owner
173 |   --
174 |
175 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (1, 'Curabitur consequat, lectus sit amet luctus', 'felis', '
        2021-12-30 09:57:03');
176 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (2, 'elit, pharetra ut, pharetra sed, hendrerit a, arcu. Sed
        et', 'diam', '2022-08-07 12:42:01');
177 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (3, 'est arcu ac orci. Ut semper pretium neque. Morbi', 'Sed'
        , '2021-07-27 14:08:26');
178 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (4, 'ac tellus.', 'Nam', '2021-04-16 21:58:33');
179 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (5, 'facilisis, magna tellus faucibus', 'Donec', '2022-05-16
        22:12:32');
180 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (6, 'Etiam laoreet, libero et tristique pellentesque, tellus
        sem', 'placerat.', '2022-09-12 11:54:47');
181 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (7, 'dui. Fusce diam', 'lectus', '2021-04-05 01:05:33');
182 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (8, 'ligula. Aliquam erat', 'mauris', '2021-04-16 22:03:58');
183 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (9, 'a, scelerisque sed, sapien. Nunc', 'amet', '2022-04-07
        21:22:37');
184 |   INSERT INTO public.disease (icd, description, type, tbl_last_date)
        VALUES (10, 'erat, eget tincidunt dui augue eu tellus. Phasellus
        elit', 'sed,', '2021-12-19 22:37:41');
185 |
186 |   --
187 |   -- Data for Name: doctor_disease; Type: TABLE DATA; Schema: public;
        Owner: pg_database_owner
188 |   --
189 |
190 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
         VALUES (1, 1, '2020-12-11 17:41:15');
191 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
         VALUES (2, 2, '2021-06-15 19:48:09');
192 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
         VALUES (3, 3, '2021-02-07 17:27:26');
```

```
193 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (4, 4, '2021-04-26 23:33:40');
194 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (5, 5, '2020-10-30 01:26:26');
195 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (6, 6, '2021-02-28 11:54:35');
196 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (7, 7, '2022-06-06 05:43:35');
197 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (8, 8, '2021-03-30 20:03:48');
198 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (9, 9, '2022-03-14 19:53:56');
199 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (10, 10, '2020-11-12 16:54:08');
200 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (11, 1, '2020-12-11 17:41:15');
201 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (12, 2, '2021-06-15 19:48:09');
202 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (13, 3, '2021-02-07 17:27:26');
203 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (14, 4, '2021-04-26 23:33:40');
204 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (15, 5, '2020-10-30 01:26:26');
205 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (16, 6, '2021-02-28 11:54:35');
206 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (17, 7, '2022-06-06 05:43:35');
207 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (18, 8, '2021-03-30 20:03:48');
208 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (19, 9, '2022-03-14 19:53:56');
209 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (20, 10, '2020-11-12 16:54:08');
210 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (1, 1, '2020-12-11 17:41:15');
211 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (2, 2, '2021-06-15 19:48:09');
212 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (3, 3, '2021-02-07 17:27:26');
213 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (4, 4, '2021-04-26 23:33:40');
214 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (5, 5, '2020-10-30 01:26:26');
215 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (6, 6, '2021-02-28 11:54:35');
216 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (7, 7, '2022-06-06 05:43:35');
217 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (8, 8, '2021-03-30 20:03:48');
218 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (9, 9, '2022-03-14 19:53:56');
219 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (10, 10, '2020-11-12 16:54:08');
220 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (11, 1, '2020-12-11 17:41:15');
221 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
          VALUES (12, 2, '2021-06-15 19:48:09');
```

```
222 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (13, 3, '2021-02-07 17:27:26');
223 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (14, 4, '2021-04-26 23:33:40');
224 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (15, 5, '2020-10-30 01:26:26');
225 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (16, 6, '2021-02-28 11:54:35');
226 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (17, 7, '2022-06-06 05:43:35');
227 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (18, 8, '2021-03-30 20:03:48');
228 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (19, 9, '2022-03-14 19:53:56');
229 |   INSERT INTO public.doctor_disease (doctor_id, disease_id, tbl_last_date)
    |       VALUES (20, 10, '2020-11-12 16:54:08');
230 |
231 |   --
232 |   -- Data for Name: doctor_patient; Type: TABLE DATA; Schema: public;
    |      Owner: pg_database_owner
233 |   --
234 |
235 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (1, 1, '2020-12-11 17:41:15');
236 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (2, 2, '2021-06-15 19:48:09');
237 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (3, 3, '2021-02-07 17:27:26');
238 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (4, 4, '2021-04-26 23:33:40');
239 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (5, 5, '2020-10-30 01:26:26');
240 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (6, 6, '2021-02-28 11:54:35');
241 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (7, 7, '2022-06-06 05:43:35');
242 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (8, 8, '2021-03-30 20:03:48');
243 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (9, 9, '2022-03-14 19:53:56');
244 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (10, 10, '2020-11-12 16:54:08');
245 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (11, 11, '2020-12-11 17:41:15');
246 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (12, 12, '2021-06-15 19:48:09');
247 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (13, 13, '2021-02-07 17:27:26');
248 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (14, 14, '2021-04-26 23:33:40');
249 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (15, 15, '2020-10-30 01:26:26');
250 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (16, 16, '2021-02-28 11:54:35');
251 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (17, 17, '2022-06-06 05:43:35');
252 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
    |       VALUES (18, 18, '2021-03-30 20:03:48');
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253 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (19, 19, '2022-03-14 19:53:56');
254 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (20, 20, '2020-11-12 16:54:08');
255 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (1, 1, '2020-12-11 17:41:15');
256 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (2, 2, '2021-06-15 19:48:09');
257 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (3, 3, '2021-02-07 17:27:26');
258 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (4, 4, '2021-04-26 23:33:40');
259 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (5, 5, '2020-10-30 01:26:26');
260 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (6, 6, '2021-02-28 11:54:35');
261 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (7, 7, '2022-06-06 05:43:35');
262 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (8, 8, '2021-03-30 20:03:48');
263 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (9, 9, '2022-03-14 19:53:56');
264 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (10, 10, '2020-11-12 16:54:08');
265 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (11, 11, '2020-12-11 17:41:15');
266 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (12, 12, '2021-06-15 19:48:09');
267 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (13, 13, '2021-02-07 17:27:26');
268 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (14, 14, '2021-04-26 23:33:40');
269 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (15, 15, '2020-10-30 01:26:26');
270 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (16, 16, '2021-02-28 11:54:35');
271 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (17, 17, '2022-06-06 05:43:35');
272 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (18, 18, '2021-03-30 20:03:48');
273 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (19, 19, '2022-03-14 19:53:56');
274 |   INSERT INTO public.doctor_patient (doctor_id, patient_id, tbl_last_date)
           VALUES (20, 20, '2020-11-12 16:54:08');
275 |
276 |   --
277 |   -- Data for Name: drug_treatment; Type: TABLE DATA; Schema: public;
           Owner: pg_database_owner
278 |   --
279 |
280 |   INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
           (1, 'a purus.', 'et', '2021-01-14 13:27:08');
281 |   INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
           (2, 'risus, at', 'Mauris', '2021-03-16 18:00:05');
282 |   INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
           (3, 'Nulla facilisis.', 'sed,', '2021-02-19 16:41:54');
283 |   INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
           (4, 'semper rutrum.', 'magna.', '2021-08-25 06:06:46');
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284 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (5, 'dui lectus', 'dapibus', '2022-09-05 19:22:27');
285 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (6, 'Suspendisse ac', 'risus.', '2022-06-27 02:48:06');
286 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (7, 'pharetra ut,', 'tempus', '2022-03-11 10:00:36');
287 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (8, 'Proin vel', 'Nam', '2022-10-05 18:48:42');
288 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (9, 'volutpat ornare,', 'purus', '2022-08-08 03:25:10');
289 |    INSERT INTO public.drug_treatment (id, drug, dose, tbl_last_date) VALUES
     |        (10, 'sem semper', 'ut', '2021-06-26 14:55:16');
290 |
291 |    --
292 |    -- Data for Name: emergency_contact; Type: TABLE DATA; Schema: public;
     |        Owner: pg_database_owner
293 |    --
294 |
295 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (1, 'Hanna Sweet', '2501
     |        Porttitor Av.', '(360) 493-1522', 'Mauris', '2022-06-14 00:00:00');
296 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (2, 'Alfonso Mooney', '3098
     |        Morbi Street', '(737) 603-9936', 'euismod', '2022-04-06 00:00:00');
297 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (3, 'Charles Wiggins', 'Ap
     |        #210-8363 Tortor. Avenue', '(558) 241-9436', 'elementum', '
     |        2022-08-04 00:00:00');
298 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (4, 'Bernard Parks', 'Ap
     |        #664-590 Nonummy Road', '(664) 389-7358', 'non', '2021-12-17
     |        00:00:00');
299 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (5, 'Arsenio Mcintosh', '9221
     |        Consequat Rd.', '(313) 186-2459', 'volutpat', '2022-01-07 00:00:00')
     |        ;
300 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (6, 'Dalton Farrell', 'Ap
     |        #805-5336 Massa. St.', '(275) 795-6383', 'gravida.', '2022-05-26
     |        00:00:00');
301 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (7, 'Cooper Chan', 'Ap #230-8537
     |         Tortor Road', '(649) 199-2533', 'Maecenas', '2021-10-19 00:00:00');
302 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (8, 'Martha Walker', '381-7329
     |        Sit St.', '(516) 496-3718', 'Proin', '2021-02-06 00:00:00');
303 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (9, 'Tatum Hill', '9446 Bibendum
     |        . Avenue', '(377) 513-8138', 'Sed', '2022-03-21 00:00:00');
304 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (10, 'Julian Ford', '6201
     |        Tincidunt. Avenue', '(816) 821-8422', 'pede', '2022-07-31 00:00:00')
     |        ;
305 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (11, 'Jelani Murray', '2501
     |        Porttitor Av.', '(360) 493-1522', 'Mauris', '2022-06-14 00:00:00');
306 |    INSERT INTO public.emergency_contact (id, name, address, phone,
     |        relationship, tbl_last_date) VALUES (12, 'Dylan Callahan', '3098
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         Morbi Street', '(737) 603-9936', 'euismod', '2022-04-06 00:00:00');
307 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (13, 'Veda Barker', 'Ap
         #210-8363 Tortor. Avenue', '(558) 241-9436', 'elementum', '
         2022-08-04 00:00:00');
308 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (14, 'Leslie Emerson', 'Ap
         #664-590 Nonummy Road', '(664) 389-7358', 'non', '2021-12-17
         00:00:00');
309 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (15, 'Zachary Dodson', '9221
         Consequat Rd.', '(313) 186-2459', 'volutpat', '2022-01-07 00:00:00')
         ;
310 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (16, 'Dacey Johnston', 'Ap
         #805-5336 Massa. St.', '(275) 795-6383', 'gravida.', '2022-05-26
         00:00:00');
311 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (17, 'Martha Patterson', 'Ap
         #230-8537 Tortor Road', '(649) 199-2533', 'Maecenas', '2021-10-19
         00:00:00');
312 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (18, 'Emerald Green', '381-7329
         Sit St.', '(516) 496-3718', 'Proin', '2021-02-06 00:00:00');
313 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (19, 'Avram Boone', '9446
         Bibendum. Avenue', '(377) 513-8138', 'Sed', '2022-03-21 00:00:00');
314 |  INSERT INTO public.emergency_contact (id, name, address, phone,
         relationship, tbl_last_date) VALUES (20, 'Benjamin Rogers', '6201
         Tincidunt. Avenue', '(816) 821-8422', 'pede', '2022-07-31 00:00:00')
         ;
315 |
316 |
317 |  --
318 |  -- Data for Name: fulltime_doctor; Type: TABLE DATA; Schema: public;
         Owner: pg_database_owner
319 |  --
320 |
321 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Molly Morrison', '2021-03-08', 92940, '
         2021-04-28 14:15:23', 6);
322 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Hollee Franklin', '2021-05-19', 88491, '
         2022-05-22 10:00:06', 7);
323 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Damon Crosby', '2022-08-27', 88925, '
         2022-05-15 16:26:47', 8);
324 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Ila Conrad', '2022-01-04', 62498, '
         2021-08-04 05:45:59', 9);
325 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Sarah Johnson', '2021-12-01', 79640, '
         2022-08-27 14:25:11', 10);
326 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Rebekah Burke', '2021-10-05', 85271, '
         2021-08-09 10:03:59', 16);
327 |  INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
         tbl_last_date, id) VALUES ('Belle Henderson', '2021-09-15', 80909, '
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      |   2022-08-02 17:35:29', 17);
328 |   INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
      |      tbl_last_date, id) VALUES ('Porter O''connor', '2021-05-25', 69792,
      |      '2022-06-16 18:25:06', 18);
329 |   INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
      |      tbl_last_date, id) VALUES ('Timothy Pugh', '2022-08-05', 92739, '
      |      2022-02-07 06:18:32', 19);
330 |   INSERT INTO public.fulltime_doctor (name, hire_date, annual_pay,
      |      tbl_last_date, id) VALUES ('Harper Lee', '2020-11-28', 71502, '
      |      2021-11-04 09:43:43', 20);
331 |
332 |   --
333 |   -- Data for Name: hospital; Type: TABLE DATA; Schema: public; Owner:
      |      pg_database_owner
334 |   --
335 |
336 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (4, 'Enim LLC', 'P.O. Box 604, 3665 Dolor Av.'
      |      , 'ipsum', '(622) 884-1778', '(765) 501-3397', '(629) 988-8446', '
      |      (483) 279-6455', '2022-09-24 01:06:40');
337 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (5, 'A Neque Industries', 'P.O. Box 309, 9635
      |      A, Avenue', 'amet', '(294) 384-2474', '(445) 156-8422', '(267)
      |      456-2091', '(820) 643-6294', '2022-07-18 04:57:18');
338 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (6, 'Lectus Corporation', 'P.O. Box 152, 8226
      |      Lacus. Av.', 'ac', '(258) 883-8366', '(741) 287-3265', '(695)
      |      736-6000', '(873) 571-7179', '2021-08-22 05:18:28');
339 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (7, 'Mauris Erat Eget LLP', '156-4873
      |      Tincidunt, St.', 'id,', '(926) 811-2616', '(522) 421-4994', '(342)
      |      221-5257', '(798) 559-4065', '2021-04-08 22:31:21');
340 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (8, 'Velit Sed Associates', 'Ap #771-8795
      |      Tempor Rd.', 'non,', '(347) 551-8882', '(449) 126-3152', '(513)
      |      762-3345', '(453) 677-7207', '2022-01-24 12:45:13');
341 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (9, 'Cras Dictum LLP', 'Ap #344-8670 Ornare,
      |      Rd.', 'ante.', '(352) 446-9825', '(778) 387-8492', '(441) 764-6551',
      |      '(393) 322-3858', '2021-02-14 10:53:39');
342 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (10, 'Facilisi Corp.', 'Ap #431-2981 Penatibus
      |      Rd.', 'cursus', '(863) 170-4733', '(981) 374-1972', '(255) 264-7897
      |      ', '(924) 896-8873', '2021-05-18 18:36:27');
343 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
      |      tbl_last_date) VALUES (11, 'Non Associates', '490-3264 Integer
      |      Street', 'enim.', '(431) 720-7756', '(448) 689-1673', '(813)
      |      945-1914', '(574) 933-6416', '2020-11-14 05:58:03');
344 |   INSERT INTO public.hospital (id, name, address, specialty,
      |      emergency_phone, general_phone, registration_phone, admin_phone,
```

```
      tbl_last_date) VALUES (12, 'Urna Suscipit Associates', '9643 Lorem
      Av.', 'dictum', '(363) 802-6382', '(814) 162-1151', '(613) 880-4226'
      , '(516) 475-6810', '2021-05-25 02:59:11');
345 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (13, 'Fringilla Porttitor Vulputate Limited',
      'Ap #708-5478 Semper St.', 'cursus', '(726) 815-6638', '(585)
      839-6146', '(523) 414-4286', '(781) 101-6127', '2022-04-29 19:21:20'
      );
346 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (14, 'Magna Malesuada Vel Foundation', '1979
      Nunc Street', 'nibh', '(821) 862-5068', '(586) 574-3611', '(244)
      613-6655', '(248) 284-5754', '2022-05-24 08:57:07');
347 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (15, 'Vivamus Molestie Associates', '416-3413
      Lectus St.', 'turpis', '(336) 565-1684', '(434) 695-3522', '(248)
      448-6813', '(489) 611-2213', '2021-09-21 13:17:09');
348 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (17, 'Bibendum Sed Institute', 'Ap #570-2441
      Eros Av.', 'ultrices', '(705) 612-8643', '(385) 360-1201', '(260)
      557-3582', '(723) 213-2264', '2021-07-17 07:47:02');
349 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (18, 'Tincidunt Congue Inc.', 'P.O. Box 105,
      7138 Diam Av.', 'semper.', '(516) 133-3589', '(961) 787-7833', '
      (734) 955-1231', '(723) 421-3051', '2021-02-19 05:37:54');
350 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (19, 'Arcu Aliquam Limited', '856 Montes, St.'
      , 'et', '(239) 981-6437', '(738) 124-7437', '(331) 312-4273', '(735)
       908-6783', '2021-02-10 11:44:43');
351 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (1, 'Lorem Incorporated!', '3894 Mauris. St.',
       'Donec', '(826) 728-3535', '(356) 871-0695', '(358) 684-5824', '
      (801) 584-6638', '2021-11-29 21:36:24.44294');
352 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (3, 'Ut Tincidunt LLC!', '800-7207 At Ave', '
      risus.', '(721) 602-5097', '(370) 400-7356', '(722) 545-6115', '
      (198) 347-5777', '2021-11-29 21:36:29.870026');
353 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (2, 'Chingus Limited', 'P.O. Box 567, 9144
      Justo Rd.', 'auctor', '(541) 516-7776', '(754) 510-1375', '(262)
      781-1033', '(548) 542-5546', '2021-11-29 21:36:45.992516');
354 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (20, 'St Andrew Hospital', '707 SW Avenue
      Drive, Corvallis, OR, 97330', 'Neurosurgery', '(900)100-4000', '
      (900)100-4000', '(900)100-4000', '(900)100-4000', '2021-11-29
      22:47:28.354137');
355 |  INSERT INTO public.hospital (id, name, address, specialty,
      emergency_phone, general_phone, registration_phone, admin_phone,
      tbl_last_date) VALUES (16, 'Erat Vivamus Incorporated', '730
```

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                  Elementum Ave', 'consequat', '(418) 458-1510', '(639) 275-4638', '
                  (965) 364-6426', '(144) 244-6887', '2021-11-29 23:09:10.040747');


--
-- Data for Name: hospital_department; Type: TABLE DATA; Schema: public;
    Owner: pg_database_owner
--

INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (1, 1, '2020-12-11 17:41:15');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (2, 2, '2021-06-15 19:48:09');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (3, 3, '2021-02-07 17:27:26');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (4, 4, '2021-04-26 23:33:40');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (5, 5, '2020-10-30 01:26:26');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (6, 6, '2021-02-28 11:54:35');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (7, 7, '2022-06-06 05:43:35');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (8, 8, '2021-03-30 20:03:48');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (9, 9, '2022-03-14 19:53:56');
INSERT INTO public.hospital_department (hospital_id, department_id,
    tbl_last_date) VALUES (10, 10, '2020-11-12 16:54:08');

--
-- Data for Name: in_patient; Type: TABLE DATA; Schema: public; Owner:
    pg_database_owner
--

INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
    tbl_last_date) VALUES (11, 10, 1, '2021-09-20', '2023-03-14 20:27:54
    ');
```

```
388 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (12, 18, 10, '2022-05-27', '2023-06-10
        05:57:23');
389 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (13, 14, 1, '2020-12-19', '2021-10-03 07:21:23
        ');
390 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (14, 1, 2, '2021-11-23', '2036-09-18 08:51:17'
        );
391 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (15, 18, 5, '2022-07-02', '2027-02-16 13:33:25
        ');
392 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (16, 14, 8, '2020-10-30', '2021-05-12 15:34:17
        ');
393 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (17, 17, 4, '2021-04-07', '2034-10-26 05:39:34
        ');
394 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (18, 3, 4, '2021-08-26', '2031-03-01 02:38:21'
        );
395 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (19, 17, 7, '2021-06-15', '2026-11-10 12:10:39
        ');
396 |    INSERT INTO public.in_patient (id, bed_number, floor, discharge_date,
        tbl_last_date) VALUES (20, 1, 1, '2021-04-08', '2037-05-09 02:33:11'
        );
397 |
398 |    --
399 |    -- Data for Name: insurance; Type: TABLE DATA; Schema: public; Owner:
        pg_database_owner
400 |    --
401 |
402 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (1, 'Donec Nibh Enim Corp.', 571644, '
        2021-09-17 06:38:43');
403 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (2, 'Nec Luctus Institute', 158970, '
        2021-02-26 04:24:57');
404 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (3, 'Vitae Foundation', 114049, '2022-09-26
        12:27:31');
405 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (4, 'Lacus Ut PC', 220263, '2021-04-28
        08:42:56');
406 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (5, 'Dictum Phasellus Industries', 757029, '
        2021-07-21 10:08:01');
407 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (6, 'Suspendisse Tristique LLP', 400282, '
        2022-02-28 11:02:17');
408 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (7, 'Ridiculus Mus Industries', 677764, '
        2022-06-17 19:13:03');
409 |    INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (8, 'Non Corporation', 262020, '2021-04-18
        21:26:51');
```

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410 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (9, 'Lorem Luctus PC', 694264, '2021-06-30
        00:15:08');
411 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (10, 'Proin Vel Arcu LLC', 291462, '2021-09-18
         03:08:03');
412 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (11, 'Blandit At Corporation', 111754, '
        2022-02-06 11:13:56');
413 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (12, 'Ultricies Foundation', 497444, '
        2022-02-19 11:18:40');
414 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (13, 'Pellentesque Habitant PC', 758199, '
        2021-03-15 16:58:43');
415 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (14, 'Sit Amet Consulting', 785750, '
        2022-09-22 13:38:25');
416 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (15, 'Morbi Quis Urna Industries', 268409, '
        2021-09-13 18:48:08');
417 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (16, 'Eu Lacus Limited', 719685, '2021-07-29
        02:24:06');
418 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (17, 'Sollicitudin Adipiscing Ligula Ltd',
        183008, '2020-11-08 13:29:42');
419 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (18, 'Sem Consequat Nec Foundation', 713006, '
        2021-05-18 23:32:22');
420 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (19, 'Risus Industries', 924555, '2021-07-07
        18:17:18');
421 |   INSERT INTO public.insurance (id, insurance_company, insurance_number,
        tbl_last_date) VALUES (20, 'Ut Cursus Incorporated', 206509, '
        2022-07-03 07:41:47');
422 |
423 |   --
424 |   -- Data for Name: invoice; Type: TABLE DATA; Schema: public; Owner:
        pg_database_owner
425 |   --
426 |
427 |   INSERT INTO public.invoice (id, date, amount, payment_type,
        tbl_last_date) VALUES (1, '2021-06-07', 39.58, 'sed', '2021-03-29
        05:51:03');
428 |   INSERT INTO public.invoice (id, date, amount, payment_type,
        tbl_last_date) VALUES (2, '2022-07-29', 890.47, 'dictum', '
        2022-04-01 01:52:14');
429 |   INSERT INTO public.invoice (id, date, amount, payment_type,
        tbl_last_date) VALUES (3, '2021-05-11', 779.21, 'Duis', '2022-09-09
        02:02:35');
430 |   INSERT INTO public.invoice (id, date, amount, payment_type,
        tbl_last_date) VALUES (4, '2022-03-25', 11.1, 'netus', '2021-07-07
        05:26:37');
431 |   INSERT INTO public.invoice (id, date, amount, payment_type,
        tbl_last_date) VALUES (5, '2022-01-05', 104.3, 'pede', '2021-12-12
        21:52:03');
```

```
432 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (6, '2021-10-11', 675.25, 'magna.', '
     |        2021-04-30 13:56:24');
433 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (7, '2022-06-11', 372.23, 'odio.', '2021-12-17
     |         20:49:00');
434 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (8, '2020-12-25', 537.88, 'mi', '2021-03-29
     |        02:57:54');
435 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (9, '2022-05-05', 154.09, 'malesuada', '
     |        2022-08-14 11:38:55');
436 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (10, '2021-10-29', 289.5, 'rutrum', '
     |        2021-11-18 01:24:22');
437 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (11, '2021-06-07', 39.58, 'sed', '2021-03-29
     |        05:51:03');
438 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (12, '2022-07-29', 890.47, 'dictum', '
     |        2022-04-01 01:52:14');
439 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (13, '2021-05-11', 779.21, 'Duis', '2022-09-09
     |         02:02:35');
440 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (14, '2022-03-25', 11.1, 'netus', '2021-07-07
     |        05:26:37');
441 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (15, '2022-01-05', 104.3, 'pede', '2021-12-12
     |        21:52:03');
442 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (16, '2021-10-11', 675.25, 'magna.', '
     |        2021-04-30 13:56:24');
443 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (17, '2022-06-11', 372.23, 'odio.', '
     |        2021-12-17 20:49:00');
444 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (18, '2020-12-25', 537.88, 'mi', '2021-03-29
     |        02:57:54');
445 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (19, '2022-05-05', 154.09, 'malesuada', '
     |        2022-08-14 11:38:55');
446 |    INSERT INTO public.invoice (id, date, amount, payment_type,
     |        tbl_last_date) VALUES (20, '2021-10-29', 289.5, 'rutrum', '
     |        2021-11-18 01:24:22');
447 |
448 |    --
449 |    -- Data for Name: insurance_invoice; Type: TABLE DATA; Schema: public;
     |        Owner: pg_database_owner
450 |    --
451 |
452 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
     |        tbl_last_date) VALUES (1, 1, '2022-04-04 22:24:17');
453 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
     |        tbl_last_date) VALUES (2, 2, '2021-09-02 09:30:20');
454 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
     |        tbl_last_date) VALUES (3, 3, '2021-10-30 20:54:36');
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455 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (4, 4, '2022-11-18 19:21:26');
456 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (5, 5, '2022-05-09 09:49:22');
457 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (6, 6, '2022-03-01 06:06:24');
458 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (7, 7, '2022-04-20 12:11:42');
459 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (8, 8, '2021-09-09 19:32:42');
460 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (9, 9, '2022-09-23 13:18:25');
461 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (10, 10, '2021-12-11 10:17:24');
462 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (11, 11, '2022-07-25 04:18:03');
463 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (12, 12, '2021-09-19 08:48:49');
464 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (13, 13, '2022-03-03 14:21:12');
465 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (14, 14, '2021-10-22 10:08:37');
466 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (15, 15, '2022-09-04 05:10:27');
467 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (16, 16, '2021-12-30 11:15:26');
468 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (17, 17, '2022-11-05 04:40:19');
469 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (18, 18, '2022-10-08 15:12:26');
470 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (19, 19, '2022-11-12 16:07:05');
471 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (20, 20, '2022-01-26 11:13:34');
472 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (1, 1, '2022-04-04 22:24:17');
473 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (2, 2, '2021-09-02 09:30:20');
474 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (3, 3, '2021-10-30 20:54:36');
475 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (4, 4, '2022-11-18 19:21:26');
476 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (5, 5, '2022-05-09 09:49:22');
477 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (6, 6, '2022-03-01 06:06:24');
478 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (7, 7, '2022-04-20 12:11:42');
479 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (8, 8, '2021-09-09 19:32:42');
480 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (9, 9, '2022-09-23 13:18:25');
481 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (10, 10, '2021-12-11 10:17:24');
482 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (11, 11, '2022-07-25 04:18:03');
483 |  INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
          tbl_last_date) VALUES (12, 12, '2021-09-19 08:48:49');
```

```
484 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (13, 13, '2022-03-03 14:21:12');
485 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (14, 14, '2021-10-22 10:08:37');
486 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (15, 15, '2022-09-04 05:10:27');
487 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (16, 16, '2021-12-30 11:15:26');
488 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (17, 17, '2022-11-05 04:40:19');
489 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (18, 18, '2022-10-08 15:12:26');
490 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (19, 19, '2022-11-12 16:07:05');
491 |    INSERT INTO public.insurance_invoice (insurance_id, invoice_id,
             tbl_last_date) VALUES (20, 20, '2022-01-26 11:13:34');
492 |
493 |    --
494 |    -- Data for Name: laboratory_treatment; Type: TABLE DATA; Schema: public
             ; Owner: pg_database_owner
495 |    --
496 |
497 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Ultrices Mauris
             LLP', 'blandit congue.', '2022-09-30', 'et', '2020-12-19 00:00:00',
             11);
498 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Aliquam Rutrum
             Lorem Incorporated', 'odio. Etiam', '2022-04-07', 'vel', '2022-07-05
              00:00:00', 12);
499 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Et Lacinia Vitae
              Company', 'tempor arcu.', '2022-07-17', 'habitant', '2022-04-25
             00:00:00', 13);
500 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Ante Blandit LLP
             ', 'Donec elementum,', '2022-06-07', 'Nam', '2021-06-24 00:00:00',
             14);
501 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Tempus
             Scelerisque Lorem Associates', 'Donec egestas.', '2022-09-01', '
             scelerisque', '2021-09-03 00:00:00', 15);
502 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Vehicula Risus
             Associates', 'eu arcu.', '2022-08-12', 'ac', '2021-06-22 00:00:00',
             16);
503 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Eu Erat Semper
             Industries', 'aliquam, enim', '2020-11-10', 'quis', '2022-07-09
             00:00:00', 17);
504 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Vitae Diam Inc.'
             , 'mauris. Morbi', '2021-04-22', 'elit', '2022-01-19 00:00:00', 18);
505 |    INSERT INTO public.laboratory_treatment (laboratory, test_type,
             test_date, test_result, tbl_last_date, id) VALUES ('Morbi Tristique
             Limited', 'a, malesuada', '2021-06-06', 'mollis', '2022-04-01
             00:00:00', 19);
```

```
506 |  INSERT INTO public.laboratory_treatment (laboratory, test_type,
           test_date, test_result, tbl_last_date, id) VALUES ('Imperdiet Dictum
            Institute', 'ac mi', '2021-08-23', 'pellentesque.', '2021-01-09
           00:00:00', 20);
507 |
508 |
509 |  --
510 |  -- Data for Name: out_patient; Type: TABLE DATA; Schema: public; Owner:
           pg_database_owner
511 |  --
512 |
513 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (1, '2020-12-03', '2022-05-01 10:53:21');
514 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (2, '2021-05-09', '2020-11-07 03:52:08');
515 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (3, '2021-10-13', '2021-12-01 12:49:18');
516 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (4, '2022-02-22', '2021-12-20 01:57:41');
517 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (5, '2021-10-10', '2021-03-25 06:23:57');
518 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (6, '2022-09-01', '2021-05-28 03:17:52');
519 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (7, '2021-02-23', '2020-11-13 03:11:33');
520 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (8, '2022-07-19', '2021-05-27 18:42:28');
521 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (9, '2021-08-19', '2022-09-04 07:51:45');
522 |  INSERT INTO public.out_patient (id, follow_up_date, tbl_last_date)
           VALUES (10, '2022-04-13', '2022-05-13 09:11:01');
523 |
524 |  --
525 |  -- Data for Name: patient_emergency_contact; Type: TABLE DATA; Schema:
           public; Owner: pg_database_owner
526 |  --
527 |
528 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (1, 1, '2022-10-23
           06:05:05');
529 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (2, 2, '2022-08-21
           19:17:49');
530 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (3, 3, '2021-12-01
           01:55:57');
531 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (4, 4, '2021-11-04
           16:09:47');
532 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (5, 5, '2021-05-30
           07:48:24');
533 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (6, 6, '2021-07-07
           02:13:19');
534 |  INSERT INTO public.patient_emergency_contact (patient_id,
           emergency_contact_id, tbl_last_date) VALUES (7, 7, '2021-09-05
           17:20:30');
```

```
535 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (8, 8, '2020-12-07
          00:42:40');
536 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (9, 9, '2021-10-06
          09:19:11');
537 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (10, 10, '2021-04-15
          23:35:54');
538 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (1, 1, '2022-10-23
          06:05:05');
539 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (2, 2, '2022-08-21
          19:17:49');
540 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (3, 3, '2021-12-01
          01:55:57');
541 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (4, 4, '2021-11-04
          16:09:47');
542 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (5, 5, '2021-05-30
          07:48:24');
543 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (6, 6, '2021-07-07
          02:13:19');
544 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (7, 7, '2021-09-05
          17:20:30');
545 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (8, 8, '2020-12-07
          00:42:40');
546 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (9, 9, '2021-10-06
          09:19:11');
547 |    INSERT INTO public.patient_emergency_contact (patient_id,
          emergency_contact_id, tbl_last_date) VALUES (10, 10, '2021-04-15
          23:35:54');
548 |
549 |    --
550 |    -- Data for Name: patient_insurance; Type: TABLE DATA; Schema: public;
          Owner: pg_database_owner
551 |    --
552 |
553 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
554 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
555 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
556 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
557 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
558 |    INSERT INTO public.patient_insurance (patient_id, insurance_id,
          tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
```

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559 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
560 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
561 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
562 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
563 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
564 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
565 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
566 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
567 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
568 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
569 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
570 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
571 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
572 |   INSERT INTO public.patient_insurance (patient_id, insurance_id,
        tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
573 |
574 |   --
575 |   -- Data for Name: patient_invoice; Type: TABLE DATA; Schema: public;
        Owner: pg_database_owner
576 |   --
577 |
578 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
579 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
580 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
581 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
582 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
583 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
584 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
585 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
586 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
587 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
588 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
589 |   INSERT INTO public.patient_invoice (patient_id, invoice_id,
        tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
```

```
590 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
591 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
592 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
593 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
594 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
595 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
596 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
597 |    INSERT INTO public.patient_invoice (patient_id, invoice_id,
         tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
598 |
599 |
600 |    --
601 |    -- Data for Name: registration; Type: TABLE DATA; Schema: public; Owner:
         pg_database_owner
602 |    --
603 |
604 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (1, '2021-06-07', '2022-04-12 15:45:02');
605 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (2, '2022-07-29', '2021-02-09 20:32:51');
606 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (3, '2021-05-11', '2022-08-26 02:35:58');
607 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (4, '2022-03-25', '2021-08-09 18:25:00');
608 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (5, '2022-01-05', '2021-11-03 00:40:46');
609 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (6, '2021-10-11', '2021-05-24 15:29:40');
610 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (7, '2022-06-11', '2021-10-25 20:34:11');
611 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (8, '2020-12-25', '2022-05-14 12:18:25');
612 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (9, '2022-05-05', '2022-06-26 12:51:00');
613 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (10, '2021-10-29', '2022-05-24 14:08:59');
614 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (11, '2021-06-07', '2022-04-12 15:45:02');
615 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (12, '2022-07-29', '2021-02-09 20:32:51');
616 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (13, '2021-05-11', '2022-08-26 02:35:58');
617 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (14, '2022-03-25', '2021-08-09 18:25:00');
618 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (15, '2022-01-05', '2021-11-03 00:40:46');
619 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (16, '2021-10-11', '2021-05-24 15:29:40');
620 |    INSERT INTO public.registration (id, registration_date, tbl_last_date)
         VALUES (17, '2022-06-11', '2021-10-25 20:34:11');
```

```
621 |   INSERT INTO public.registration (id, registration_date, tbl_last_date)
          VALUES (18, '2020-12-25', '2022-05-14 12:18:25');
622 |   INSERT INTO public.registration (id, registration_date, tbl_last_date)
          VALUES (19, '2022-05-05', '2022-06-26 12:51:00');
623 |   INSERT INTO public.registration (id, registration_date, tbl_last_date)
          VALUES (20, '2021-10-29', '2022-05-24 14:08:59');
624 |
625 |   --
626 |   -- Data for Name: patient_registration; Type: TABLE DATA; Schema: public
          ; Owner: pg_database_owner
627 |   --
628 |
629 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
630 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
631 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
632 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
633 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
634 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
635 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
636 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
637 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
638 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
639 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
640 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
641 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
642 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
643 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
644 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
645 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
646 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
647 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
648 |   INSERT INTO public.patient_registration (patient_id, registration_id,
          tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
649 |
650 |
651 |   --
652 |   -- Data for Name: patient_treatment; Type: TABLE DATA; Schema: public;
          Owner: pg_database_owner
653 |   --
```

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654 |
655 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
656 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
657 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
658 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
659 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
660 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
661 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
662 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
663 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
664 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
665 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
666 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
667 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
668 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
669 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
670 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
671 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
672 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
673 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
674 | INSERT INTO public.patient_treatment (patient_id, treatment_id,
         tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
675 |
676 | -- Data for Name: registration_treatment; Type: TABLE DATA; Schema:
         public; Owner: pg_database_owner
677 | --
678 |
679 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
680 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
681 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
682 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
683 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
684 | INSERT INTO public.registration_treatment (registration_id, treatment_id
         , tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
```

```
685 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
686 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
687 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
688 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
689 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (1, 1, '2021-05-24 04:20:17');
690 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (2, 2, '2022-02-25 14:48:59');
691 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (3, 3, '2021-10-31 02:52:52');
692 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (4, 4, '2022-01-18 16:58:30');
693 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (5, 5, '2022-02-27 23:39:40');
694 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (6, 6, '2022-05-18 18:37:14');
695 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (7, 7, '2021-07-22 13:49:19');
696 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (8, 8, '2021-04-15 23:42:27');
697 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (9, 9, '2021-03-16 22:25:53');
698 |  INSERT INTO public.registration_treatment (registration_id, treatment_id
        , tbl_last_date) VALUES (10, 10, '2022-03-09 07:17:24');
699 |
700 |
701 |  --
702 |  -- Data for Name: surgery_treatment; Type: TABLE DATA; Schema: public;
        Owner: pg_database_owner
703 |  --
704 |
705 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (21, 'et', 'molestie pharetra', '
        2021-08-26', 'montes,', '2022-02-26 00:38:09');
706 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (22, 'Pellentesque', 'quam, elementum
        at,', '2022-04-22', 'mauris.', '2021-09-19 00:47:35');
707 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (23, 'lacus.', 'sit amet', '2022-04-29
        ', 'rutrum.', '2020-11-28 00:57:48');
708 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (24, 'ipsum.', 'porttitor interdum.
        Sed auctor odio', '2022-03-23', 'montes,', '2021-04-17 10:56:26');
709 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (25, 'Quisque', 'sit amet orci. Ut', '
        2022-02-20', 'Proin', '2022-02-15 02:25:27');
710 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (26, 'ligula.', 'dui. Cum sociis
        natoque penatibus et', '2021-11-16', 'Fusce', '2022-03-08 22:51:42')
        ;
711 |  INSERT INTO public.surgery_treatment (id, surgery, description, date,
        result, tbl_last_date) VALUES (27, 'lacinia', 'iaculis nec, eleifend
        non, dapibus', '2021-07-13', 'nostra,', '2022-08-27 17:15:41');
```

```
712 |   INSERT INTO public.surgery_treatment (id, surgery, description, date,
          result, tbl_last_date) VALUES (28, 'nibh.', 'Pellentesque ultricies
          dignissim lacus. Aliquam rutrum lorem ac risus. Morbi', '2022-04-16'
          , 'luctus', '2021-04-12 12:17:19');
713 |   INSERT INTO public.surgery_treatment (id, surgery, description, date,
          result, tbl_last_date) VALUES (29, 'Cras', 'Donec nibh enim, gravida
           sit amet, dapibus id, blandit at,', '2022-03-27', 'diam', '
          2022-09-14 14:51:03');
714 |   INSERT INTO public.surgery_treatment (id, surgery, description, date,
          result, tbl_last_date) VALUES (30, 'sapien.', 'est mauris, rhoncus
          id, mollis nec, cursus a, enim.', '2022-10-09', 'vel', '2021-05-16
          23:17:41');
```

OLTP Data Dictionary query and results

```
01 |   select table_schema,
02 |          table_name,
03 |          ordinal_position as position,
04 |          column_name,
05 |          data_type,
06 |          case when character_maximum_length is not null
07 |               then character_maximum_length
08 |               else numeric_precision end as max_length,
09 |          is_nullable,
10 |          column_default as default_value
11 |   from information_schema.columns
12 |   where table_schema not in ('information_schema', 'pg_catalog')
13 |   order by table_schema,
14 |            table_name,
15 |            ordinal_position;
```

	table_schema	table_name	position	column_name	data_type	max_length	is_nullable	default_value
1	table_schema	table_name	position	column_name	data_type	max_length	is_nullable	default_value
2	public	auth_group	1	id	integer	32	NO	nextval('auth_group_id_seq'::regclass)
3	public	auth_group	2	name	character varying	150	NO	
4	public	auth_group_permissions	1	id	bigint	64	NO	nextval('auth_group_permissions_id_seq'::regclass)
5	public	auth_group_permissions	2	group_id	integer	32	NO	
6	public	auth_group_permissions	3	permission_id	integer	32	NO	
7	public	auth_permission	1	id	integer	32	NO	nextval('auth_permission_id_seq'::regclass)
8	public	auth_permission	2	name	character varying	255	NO	
9	public	auth_permission	3	content_type_id	integer	32	NO	
10	public	auth_permission	4	codename	character varying	100	NO	
11	public	auth_user	1	id	integer	32	NO	nextval('auth_user_id_seq'::regclass)
12	public	auth_user	2	password	character varying	128	NO	
13	public	auth_user	3	last_login	timestamp with time zone		YES	
14	public	auth_user	4	is_superuser	boolean		NO	
15	public	auth_user	5	username	character varying	150	NO	
16	public	auth_user	6	first_name	character varying	150	NO	
17	public	auth_user	7	last_name	character varying	150	NO	
18	public	auth_user	8	email	character varying	254	NO	
19	public	auth_user	9	is_staff	boolean		NO	
20	public	auth_user	10	is_active	boolean		NO	
21	public	auth_user	11	date_joined	timestamp with time zone		NO	
22	public	auth_user_groups	1	id	bigint	64	NO	nextval('auth_user_groups_id_seq'::regclass)
23	public	auth_user_groups	2	user_id	integer	32	NO	
24	public	auth_user_groups	3	group_id	integer	32	NO	
25	public	auth_user_user_permissions	1	id	bigint	64	NO	nextval('auth_user_user_permissions_id_seq'::regclass)
26	public	auth_user_user_permissions	2	user_id	integer	32	NO	
27	public	auth_user_user_permissions	3	permission_id	integer	32	NO	
28	public	consulting_doctor	1	name	character varying		NO	
29	public	consulting_doctor	2	contract_date	date		NO	
30	public	consulting_doctor	3	contract_phone	character varying		NO	
31	public	consulting_doctor	4	weekly_pay	integer	32	NO	
32	public	consulting_doctor	5	min_weekly_hours	integer	32	NO	
33	public	consulting_doctor	6	overtime_hourly_pay	integer	32	NO	
34	public	consulting_doctor	7	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
35	public	consulting_doctor	8	id	integer	32	NO	
36	public	consulting_doctor_history	1	name	character varying		NO	
37	public	consulting_doctor_history	2	timestamp	timestamp without time zone		NO	clock_timestamp()
38	public	consulting_doctor_history	3	contract_date	date		NO	
39	public	consulting_doctor_history	4	contract_phone	character varying		NO	
40	public	consulting_doctor_history	5	weekly_pay	integer	32	NO	
41	public	consulting_doctor_history	6	min_weekly_hours	integer	32	NO	
42	public	consulting_doctor_history	7	overtime_hourly_pay	integer	32	NO	
43	public	consulting_doctor_history	8	id	integer	32	NO	
44	public	consulting_doctor_history_2(	1	name	character varying		NO	
45	public	consulting_doctor_history_2(	2	timestamp	timestamp without time zone		NO	clock_timestamp()
46	public	consulting_doctor_history_2(	3	contract_date	date		NO	
47	public	consulting_doctor_history_2(	4	contract_phone	character varying		NO	
48	public	consulting_doctor_history_2(	5	weekly_pay	integer	32	NO	

#	schema	table	pos	column	type	size	null	default
49	public	consulting_doctor_history_20	6	min_weekly_hours	integer	32	NO	
50	public	consulting_doctor_history_20	7	overtime_hourly_pay	integer	32	NO	
51	public	consulting_doctor_history_20	8	id	integer	32	NO	
52	public	department	1	id	integer	32	NO	
53	public	department	2	name	character varying		NO	
54	public	department	3	phone	character varying		NO	
55	public	department	4	location	character varying		NO	
56	public	department	5	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
57	public	department_doctor	1	doctor_id	integer	32	NO	
58	public	department_doctor	2	department_id	integer	32	NO	
59	public	department_doctor	3	tbl_last_date	timestamp without time zone		NO	
60	public	department_patient	1	department_id	integer	32	NO	
61	public	department_patient	2	patient_id	integer	32	NO	
62	public	department_patient	3	tbl_last_date	timestamp without time zone		NO	
63	public	disease	1	icd	integer	32	NO	
64	public	disease	2	description	character varying		NO	
65	public	disease	3	type	character varying		NO	
66	public	disease	4	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
67	public	django_admin_log	1	id	integer	32	NO	nextval('django_admin_log_id_seq'::regclass)
68	public	django_admin_log	2	action_time	timestamp with time zone		NO	
69	public	django_admin_log	3	object_id	text		YES	
70	public	django_admin_log	4	object_repr	character varying	200	NO	
71	public	django_admin_log	5	action_flag	smallint	16	NO	
72	public	django_admin_log	6	change_message	text		NO	
73	public	django_admin_log	7	content_type_id	integer	32	YES	
74	public	django_admin_log	8	user_id	integer	32	NO	
75	public	django_content_type	1	id	integer	32	NO	nextval('django_content_type_id_seq'::regclass)
76	public	django_content_type	3	app_label	character varying	100	NO	
77	public	django_content_type	4	model	character varying	100	NO	
78	public	django_migrations	1	id	bigint	64	NO	nextval('django_migrations_id_seq'::regclass)
79	public	django_migrations	2	app	character varying	255	NO	
80	public	django_migrations	3	name	character varying	255	NO	
81	public	django_migrations	4	applied	timestamp with time zone		NO	
82	public	django_session	1	session_key	character varying	40	NO	
83	public	django_session	2	session_data	text		NO	
84	public	django_session	3	expire_date	timestamp with time zone		NO	
85	public	doctor	1	id	integer	32	NO	
86	public	doctor	2	name	character varying		NO	
87	public	doctor	3	office_phone	character varying		NO	
88	public	doctor	4	personal_phone	character varying		NO	
89	public	doctor	5	specialty	character varying		NO	
90	public	doctor	6	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
91	public	doctor_disease	1	doctor_id	integer	32	NO	
92	public	doctor_disease	2	disease_id	integer	32	NO	
93	public	doctor_disease	3	tbl_last_date	timestamp without time zone		NO	
94	public	doctor_patient	1	doctor_id	integer	32	NO	
95	public	doctor_patient	2	patient_id	integer	32	NO	
96	public	doctor_patient	3	tbl_last_date	timestamp without time zone		NO	
97	public	drug_treatment	1	id	integer	32	NO	
98	public	drug_treatment	2	drug	character varying		NO	
99	public	drug_treatment	3	dose	character varying		NO	
100	public	drug_treatment	4	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
101	public	emergency_contact	1	id	integer	32	NO	
102	public	emergency_contact	2	name	character varying		NO	
103	public	emergency_contact	3	address	character varying		NO	
104	public	emergency_contact	4	phone	character varying		NO	
105	public	emergency_contact	5	relationship	character varying		NO	
106	public	emergency_contact	6	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
107	public	fulltime_doctor	1	name	character varying		NO	
108	public	fulltime_doctor	2	hire_date	date		NO	
109	public	fulltime_doctor	3	annual_pay	integer	32	NO	
110	public	fulltime_doctor	4	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
111	public	fulltime_doctor	5	id	integer	32	NO	
112	public	fulltime_doctor_history	1	name	character varying		NO	
113	public	fulltime_doctor_history	2	timestamp	timestamp without time zone		NO	clock_timestamp()
114	public	fulltime_doctor_history	3	hire_date	date		NO	
115	public	fulltime_doctor_history	4	annual_pay	integer	32	NO	
116	public	fulltime_doctor_history	5	id	integer	32	NO	
117	public	fulltime_doctor_history_202	1	name	character varying		NO	
118	public	fulltime_doctor_history_202	2	timestamp	timestamp without time zone		NO	clock_timestamp()
119	public	fulltime_doctor_history_202	3	hire_date	date		NO	
120	public	fulltime_doctor_history_202	4	annual_pay	integer	32	NO	
121	public	fulltime_doctor_history_202	5	id	integer	32	NO	
122	public	hospital	1	id	integer	32	NO	
123	public	hospital	2	name	character varying		NO	
124	public	hospital	3	address	character varying		NO	
125	public	hospital	4	specialty	character varying		NO	
126	public	hospital	5	emergency_phone	character varying		NO	
127	public	hospital	6	general_phone	character varying		NO	
128	public	hospital	7	registration_phone	character varying		NO	
129	public	hospital	8	admin_phone	character varying		NO	
130	public	hospital	9	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
131	public	hospital_department	1	hospital_id	integer	32	NO	
132	public	hospital_department	2	department_id	integer	32	NO	
133	public	hospital_department	3	tbl_last_date	timestamp without time zone		NO	
134	public	in_patient	1	id	integer	32	NO	
135	public	in_patient	2	bed_number	integer	32	NO	
136	public	in_patient	3	floor	integer	32	NO	
137	public	in_patient	4	discharge_date	date		NO	
138	public	in_patient	5	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
139	public	in_patient_history	1	id	integer	32	NO	
140	public	in_patient_history	2	timestamp	timestamp without time zone		NO	clock_timestamp()
141	public	in_patient_history	3	bed_number	integer	32	NO	
142	public	in_patient_history	4	floor	integer	32	NO	
143	public	in_patient_history	5	discharge_date	date		NO	
144	public	in_patient_history_2021_10	1	id	integer	32	NO	

145	public	in_patient_history_2021_10	2	timestamp	timestamp without time zone		NO	clock_timestamp()
146	public	in_patient_history_2021_10	3	bed_number	integer	32	NO	
147	public	in_patient_history_2021_10	4	floor	integer	32	NO	
148	public	in_patient_history_2021_10	5	discharge_date	date		NO	
149	public	insurance	1	id	integer	32	NO	
150	public	insurance	2	insurance_company	character varying	50	NO	
151	public	insurance	3	insurance_number	integer	32	NO	
152	public	insurance	4	tbl_last_date	timestamp without time zone		NO	
153	public	insurance_invoice	1	insurance_id	integer	32	NO	
154	public	insurance_invoice	2	invoice_id	integer	32	NO	
155	public	insurance_invoice	3	tbl_last_date	timestamp without time zone		NO	
156	public	invoice	1	id	integer	32	NO	
157	public	invoice	2	date	date		NO	
158	public	invoice	3	amount	double precision	53	NO	
159	public	invoice	4	payment_type	character varying		NO	
160	public	invoice	5	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
161	public	laboratory_treatment	1	laboratory	character varying		NO	
162	public	laboratory_treatment	2	test_type	character varying		NO	
163	public	laboratory_treatment	3	test_date	date		NO	
164	public	laboratory_treatment	4	test_result	character varying		NO	
165	public	laboratory_treatment	5	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
166	public	laboratory_treatment	6	id	integer	32	NO	
167	public	out_patient	1	id	integer	32	NO	
168	public	out_patient	2	follow_up_date	date		NO	
169	public	out_patient	3	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
170	public	out_patient_history	1	id	integer	32	NO	
171	public	out_patient_history	2	timestamp	timestamp without time zone		NO	clock_timestamp()
172	public	out_patient_history	3	follow_up_date	date		NO	
173	public	out_patient_history_2021_10	1	id	integer	32	NO	
174	public	out_patient_history_2021_10	2	timestamp	timestamp without time zone		NO	clock_timestamp()
175	public	out_patient_history_2021_10	3	follow_up_date	date		NO	
176	public	patient	1	id	integer	32	NO	
177	public	patient	2	name	character varying		NO	
178	public	patient	3	address	character varying		NO	
179	public	patient	4	phone	character varying		NO	
180	public	patient	5	birth_date	date		NO	
181	public	patient	6	race	character varying		NO	
182	public	patient	7	martial_status	character varying		NO	
183	public	patient	8	gender	character varying		NO	
184	public	patient	9	blood_group	character varying		NO	
185	public	patient	10	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
186	public	patient_emergency_contact	1	patient_id	integer	32	NO	
187	public	patient_emergency_contact	2	emergency_contact_	integer	32	NO	
188	public	patient_emergency_contact	3	tbl_last_date	timestamp without time zone		NO	
189	public	patient_insurance	1	patient_id	integer	32	NO	
190	public	patient_insurance	2	insurance_id	integer	32	NO	
191	public	patient_insurance	3	tbl_last_date	timestamp without time zone		NO	
192	public	patient_invoice	1	patient_id	integer	32	NO	

193	public	patient_invoice	2	invoice_id	integer	32	NO	
194	public	patient_invoice	3	tbl_last_date	timestamp without time zone		NO	
195	public	patient_registration	1	patient_id	integer	32	NO	
196	public	patient_registration	2	registration_id	integer	32	NO	
197	public	patient_registration	3	tbl_last_date	timestamp without time zone		NO	
198	public	patient_treatment	1	patient_id	integer	32	NO	
199	public	patient_treatment	2	treatment_id	integer	32	NO	
200	public	patient_treatment	3	tbl_last_date	timestamp without time zone		NO	
201	public	registration	1	id	integer	32	NO	
202	public	registration	2	registration_date	date		NO	
203	public	registration	3	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
204	public	registration_treatment	1	registration_id	integer	32	NO	
205	public	registration_treatment	2	treatment_id	integer	32	NO	
206	public	registration_treatment	3	tbl_last_date	timestamp without time zone		NO	
207	public	surgery_treatment	1	id	integer	32	NO	
208	public	surgery_treatment	2	surgery	character varying		NO	
209	public	surgery_treatment	3	description	character varying		NO	
210	public	surgery_treatment	4	date	date		NO	
211	public	surgery_treatment	5	result	character varying		NO	
212	public	surgery_treatment	6	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
213	public	treatment	1	id	integer	32	NO	
214	public	treatment	2	date	date		NO	
215	public	treatment	3	type	character varying		NO	
216	public	treatment	4	result_status	character varying		NO	
217	public	treatment	5	description	character varying		NO	
218	public	treatment	6	tbl_last_date	timestamp without time zone		NO	CURRENT_TIMESTAMP
219	public	treatment_history	1	id	integer	32	NO	
220	public	treatment_history	2	timestamp	timestamp without time zone		NO	clock_timestamp()
221	public	treatment_history	3	date	date		NO	
222	public	treatment_history	4	type	character varying		NO	
223	public	treatment_history	5	result_status	character varying		NO	
224	public	treatment_history	6	description	character varying		NO	
225	public	treatment_history_2021_10	1	id	integer	32	NO	
226	public	treatment_history_2021_10	2	timestamp	timestamp without time zone		NO	clock_timestamp()
227	public	treatment_history_2021_10	3	date	date		NO	
228	public	treatment_history_2021_10	4	type	character varying		NO	
229	public	treatment_history_2021_10	5	result_status	character varying		NO	
230	public	treatment_history_2021_10	6	description	character varying		NO	

DW DDL code

```
01 |  -- ************** SqlDBM: PostgreSQL ***************;
02 |  -- ****************************************************;
03 |
04 |
05 |  -- *************************************** treatment
06 |
07 |  CREATE TABLE treatment
08 |  (
09 |   treatment_id         int NOT NULL,
10 |   "date"                 date NOT NULL,
11 |   type                 varchar(50) NOT NULL,
12 |   result_status        varchar(50) NOT NULL,
13 |   description          varchar(50) NOT NULL,
14 |   laboratory_treatment varchar(50) NULL,
15 |   lab_test_type        varchar(50) NULL,
16 |   lab_test_date        date NULL,
17 |   lab_test_result      varchar(50) NULL,
18 |   drug                 varchar(50) NULL,
19 |   drug_dose            varchar(50) NULL,
20 |   surgery              varchar(50) NULL,
21 |   surgery_description  varchar(50) NULL,
22 |   surgery_date         date NULL,
23 |   surgery_result       varchar(50) NULL,
24 |   CONSTRAINT PK_62 PRIMARY KEY ( treatment_id )
25 |  );
26 |
27 |
28 |
29 |
30 |
31 |
32 |
33 |
34 |  -- *************************************** insurance_invoice
35 |
36 |  CREATE TABLE insurance_invoice
37 |  (
38 |   invoice_id           int NOT NULL,
39 |   insrurance_company   varchar(50) NOT NULL,
40 |   insurance_number     int NOT NULL,
41 |   invoice_date         date NULL,
42 |   invoice_amount       float NULL,
43 |   invoice_payment_type varchar(50) NULL,
44 |   insurance_id         int NOT NULL,
45 |   CONSTRAINT PK_79 PRIMARY KEY ( invoice_id )
46 |  );
47 |
48 |
49 |
50 |
51 |
52 |
53 |
54 |
55 |  -- *************************************** hospital
```

```
 56 |
 57 |  CREATE TABLE hospital
 58 |  (
 59 |   name                 varchar(50) NOT NULL,
 60 |   address              varchar(50) NOT NULL,
 61 |   specialty            varchar(50) NOT NULL,
 62 |   emergency_phone      varchar(50) NOT NULL,
 63 |   registration_phone   varchar(50) NOT NULL,
 64 |   admin_phone          varchar(50) NOT NULL,
 65 |   department_name      varchar(50) NOT NULL,
 66 |   department_location  varchar(50) NOT NULL,
 67 |   hospital_id          int NOT NULL,
 68 |   department_id        int NOT NULL,
 69 |   CONSTRAINT PK_9 PRIMARY KEY ( hospital_id, department_id )
 70 |  );
 71 |
 72 |
 73 |
 74 |
 75 |
 76 |
 77 |
 78 |
 79 |  -- **************************************** patient
 80 |
 81 |  CREATE TABLE patient
 82 |  (
 83 |   name                      varchar(50) NOT NULL,
 84 |   treatment_id              int NOT NULL,
 85 |   invoice_id                int NOT NULL,
 86 |   address                   varchar(50) NOT NULL,
 87 |   phone                     varchar(50) NOT NULL,
 88 |   birth_date                date NOT NULL,
 89 |   race                      varchar(50) NOT NULL,
 90 |   martial_status            varchar(50) NOT NULL,
 91 |   gender                    varchar(50) NOT NULL,
 92 |   blood_group               varchar(50) NOT NULL,
 93 |   bed_number                int NULL,
 94 |   "floor"                     int NULL,
 95 |   discharge_date            date NULL,
 96 |   follow_up_date            date NULL,
 97 |   type                      varchar(50) NULL,
 98 |   treatment_registration_date date NOT NULL,
 99 |   emergency_name            varchar(50) NOT NULL,
100 |   emergency_address         varchar(50) NOT NULL,
101 |   emergency_phone           varchar(50) NOT NULL,
102 |   emergency_relationship    varchar(50) NOT NULL,
103 |   emergency_id              int NOT NULL,
104 |   hospital_id               int NOT NULL,
105 |   department_id             int NOT NULL,
106 |   patient_id                int NOT NULL,
107 |   CONSTRAINT PK_39 PRIMARY KEY ( patient_id, birth_date),
108 |   CONSTRAINT FK_135 FOREIGN KEY ( treatment_id ) REFERENCES treatment (
          treatment_id ),
109 |   CONSTRAINT FK_140 FOREIGN KEY ( invoice_id ) REFERENCES
          insurance_invoice ( invoice_id ),
110 |   CONSTRAINT FK_146 FOREIGN KEY ( hospital_id, department_id ) REFERENCES
           hospital ( hospital_id, department_id )
```

66

```
111 |   )PARTITION BY RANGE (birth_date);
112 |
113 |   CREATE INDEX FK_137 ON patient
114 |   (
115 |    treatment_id
116 |   );
117 |
118 |   CREATE INDEX FK_143 ON patient
119 |   (
120 |    invoice_id
121 |   );
122 |
123 |   CREATE INDEX FK_149 ON patient
124 |   (
125 |    hospital_id,
126 |    department_id
127 |   );
128 |
129 |
130 |
131 |
132 |
133 |
134 |
135 |
136 |   -- ************************************ doctor
137 |
138 |   CREATE TABLE doctor
139 |   (
140 |    name                 varchar(50) NOT NULL,
141 |    office_phone         varchar(50) NOT NULL,
142 |    personal_phone       varchar(50) NOT NULL,
143 |    specialty            varchar(50) NOT NULL,
144 |    hire_date            date NULL,
145 |    annual_pay           int NULL,
146 |    contract_date        date NULL,
147 |    contract_phone        varchar(50) NULL,
148 |    weekly_pay           decimal NULL,
149 |    min_weekly_hours     int NULL,
150 |    overtime_hourly_pay decimal NULL,
151 |    disease_description varchar(50) NOT NULL,
152 |    disease_type         varchar(50) NOT NULL,
153 |    hospital_id          int NOT NULL,
154 |    department_id        int NOT NULL,
155 |    disease_id           int NOT NULL,
156 |    doctor_id            int NOT NULL,
157 |    CONSTRAINT PK_21 PRIMARY KEY ( doctor_id ),
158 |    CONSTRAINT FK_121 FOREIGN KEY ( hospital_id, department_id ) REFERENCES
           hospital ( hospital_id, department_id ),
159 |   );
160 |
161 |   CREATE INDEX FK_124 ON doctor
162 |   (
163 |    hospital_id,
164 |    department_id
165 |   );
```

ETL code used

The ETL code below is used to generate insurance_invoice table in DW.

Create stage tables

```
01 |  -- FULL
02 |
03 |  -- *************** SqlDBM: PostgreSQL ****************;
04 |  -- ***************************************************;
05 |
06 |
07 |  -- ************************************** treatment
08 |
09 |  CREATE TABLE stg_dw_treatment
10 |  (
11 |   treatment_id          int NOT NULL,
12 |   "date"                  date NOT NULL,
13 |   type                  varchar(50) NOT NULL,
14 |   result_status         varchar(50) NOT NULL,
15 |   description           varchar(100) NOT NULL,
16 |   laboratory_treatment varchar(50) NULL,
17 |   lab_test_type         varchar(50) NULL,
18 |   lab_test_date         date NULL,
19 |   lab_test_result       varchar(50) NULL,
20 |   drug                  varchar(50) NULL,
21 |   drug_dose             varchar(50) NULL,
22 |   surgery               varchar(50) NULL,
23 |   surgery_description   varchar(100) NULL,
24 |   surgery_date          date NULL,
25 |   surgery_result        varchar(50) NULL,
26 |   CONSTRAINT PK_362 PRIMARY KEY ( treatment_id )
27 |  );
28 |
29 |
30 |
31 |
32 |
33 |
34 |
35 |
36 |  -- ************************************** insurance_invoice
37 |
38 |  CREATE TABLE stg_dw_insurance_invoice
39 |  (
40 |   invoice_id            int NOT NULL,
41 |   insrurance_company    varchar(50) NOT NULL,
42 |   insurance_number      int NOT NULL,
43 |   invoice_date          date NULL,
44 |   invoice_amount        float NULL,
45 |   invoice_payment_type varchar(50) NULL,
46 |   insurance_id          int NOT NULL,
47 |   CONSTRAINT PK_379 PRIMARY KEY ( invoice_id )
48 |  );
49 |
50 |
```

```sql
 51 |
 52 |
 53 |
 54 |
 55 |
 56 |
 57 |  -- **************************************** hospital
 58 |
 59 |  CREATE TABLE stg_dw_hospital
 60 |  (
 61 |   name                 varchar(50) NOT NULL,
 62 |   address              varchar(50) NOT NULL,
 63 |   specialty            varchar(50) NOT NULL,
 64 |   emergency_phone      varchar(50) NOT NULL,
 65 |   registration_phone   varchar(50) NOT NULL,
 66 |   admin_phone          varchar(50) NOT NULL,
 67 |   department_name      varchar(50) NOT NULL,
 68 |   department_location  varchar(50) NOT NULL,
 69 |   hospital_id          int NOT NULL,
 70 |   department_id        int NOT NULL,
 71 |   CONSTRAINT PK_309 PRIMARY KEY ( hospital_id, department_id )
 72 |  );
 73 |
 74 |
 75 |
 76 |
 77 |
 78 |
 79 |
 80 |
 81 |  -- **************************************** patient
 82 |
 83 |  CREATE TABLE stg_dw_patient
 84 |  (
 85 |   name                      varchar(50) NOT NULL,
 86 |   treatment_id              int,
 87 |   invoice_id                int,
 88 |   address                   varchar(50) NOT NULL,
 89 |   phone                     varchar(50) NOT NULL,
 90 |   birth_date                date NOT NULL,
 91 |   race                      varchar(50) NOT NULL,
 92 |   martial_status            varchar(50) NOT NULL,
 93 |   gender                    varchar(50) NOT NULL,
 94 |   blood_group               varchar(50) NOT NULL,
 95 |   bed_number                int,
 96 |   "floor"                   int,
 97 |   discharge_date            date,
 98 |   follow_up_date            date,
 99 |   type                      varchar(50),
100 |   treatment_registration_date date,
101 |   emergency_name            varchar(50),
102 |   emergency_address         varchar(50),
103 |   emergency_phone           varchar(50),
104 |   emergency_relationship    varchar(50),
105 |   emergency_id              int,
106 |   hospital_id               int,
107 |   department_id             int,
108 |   patient_id                int,
```

69

```
109 |   CONSTRAINT PK_339 PRIMARY KEY ( patient_id, birth_date),
110 |   CONSTRAINT FK_435 FOREIGN KEY ( treatment_id ) REFERENCES
        stg_dw_treatment ( treatment_id ),
111 |   CONSTRAINT FK_440 FOREIGN KEY ( invoice_id ) REFERENCES
        stg_dw_insurance_invoice ( invoice_id ),
112 |   CONSTRAINT FK_446 FOREIGN KEY ( hospital_id, department_id ) REFERENCES
        stg_dw_hospital ( hospital_id, department_id )
113 | );
114 |
115 | CREATE INDEX FK_437 ON stg_dw_patient
116 | (
117 |  treatment_id
118 | );
119 |
120 | CREATE INDEX FK_443 ON stg_dw_patient
121 | (
122 |  invoice_id
123 | );
124 |
125 | CREATE INDEX FK_449 ON stg_dw_patient
126 | (
127 |  hospital_id,
128 |  department_id
129 | );
130 |
131 |
132 |
133 |
134 |
135 |
136 |
137 |
138 | -- ************************************** doctor
139 |
140 | CREATE TABLE stg_dw_doctor
141 | (
142 |  name                varchar(50) NOT NULL,
143 |  office_phone        varchar(50) NOT NULL,
144 |  personal_phone      varchar(50) NOT NULL,
145 |  specialty           varchar(50) NOT NULL,
146 |  hire_date           date NULL,
147 |  annual_pay          int NULL,
148 |  contract_date       date NULL,
149 |  contract_phone       varchar(50) NULL,
150 |  weekly_pay          decimal NULL,
151 |  min_weekly_hours    int NULL,
152 |  overtime_hourly_pay decimal NULL,
153 |  disease_description varchar(100) NOT NULL,
154 |  disease_type        varchar(50) NOT NULL,
155 |  hospital_id         int NOT NULL,
156 |  department_id       int NOT NULL,
157 |  disease_id          int NOT NULL,
158 |  doctor_id           int NOT NULL,
159 |  CONSTRAINT PK_321 PRIMARY KEY ( doctor_id ),
160 |  CONSTRAINT FK_421 FOREIGN KEY ( hospital_id, department_id ) REFERENCES
        stg_dw_hospital ( hospital_id, department_id ),
161 | );
162 |
```

```
163 |  CREATE INDEX FK_424 ON stg_dw_doctor
164 |  (
165 |   hospital_id,
166 |   department_id
167 |  );
```

Full

Export and transform data to an external table

```
01 |  -- FULL
02 |  -- doctor dw table with dates later that one month ago from now
03 |  COPY (
04 |  WITH doctor as (
05 |  SELECT distinct a.id, a.name, a.office_phone, a.personal_phone, a.
          specialty,
06 |  b.hire_date, b.annual_pay, c.contract_date, c.contract_phone, c.
          weekly_pay, c.min_weekly_hours
07 |  ,c.overtime_hourly_pay, d.disease_id
08 |  FROM doctor a
09 |  LEFT JOIN fulltime_doctor b on a.id = b.id
10 |  LEFT JOIN consulting_doctor c on a.id = c.id
11 |  JOIN doctor_disease d on a.id = d.doctor_id
12 |  WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 month')
13 |  ),
14 |  doctor2 as (
15 |  SELECT a.id, a.name, a.office_phone, a.personal_phone, a.specialty, a.
          hire_date, a.annual_pay, a.contract_date, a.contract_phone, a.
          weekly_pay, a.min_weekly_hours, a.overtime_hourly_pay, e.description
           as "disease_description", e.type as "disease_type", e.icd as "
          disease_id"
16 |  FROM doctor a join disease e on a.disease_id = e.icd
17 |  ),
18 |  doctor3 as (
19 |  SELECT a.*, b.department_id
20 |  FROM doctor2 a join department_doctor b on a.id = b.doctor_id
21 |  ),
22 |  doctor4 as (
23 |  SELECT distinct a.*, b.hospital_id
24 |  FROM doctor3 a join hospital_department b on a.department_id = b.
          department_id
25 |  ),
26 |  doctor5 as (
27 |  SELECT distinct a.*, b.patient_id
28 |  FROM doctor4 a join doctor_patient b on a.id = b.doctor_id
29 |  ),
30 |  doctor6 as (
31 |  SELECT distinct a.*, b.birth_date as "patient_dob"
32 |  FROM doctor5 a join patient b on a.patient_id = b.id
33 |  )
34 |  SELECT a.name, a.office_phone, a.personal_phone, a.specialty, a.
          hire_date,
35 |  a.annual_pay, a.contract_date, a.contract_phone, a.weekly_pay, a.
          min_weekly_hours,
36 |  a.overtime_hourly_pay, a.disease_description, a.disease_type, a.
          hospital_id,
```

```
37 |     a.department_id, a.disease_id, a.patient_id, a.patient_dob, a.id as "
            doctor_id"
38 |     FROM doctor6 a
39 |     ) TO '/tmp/doctor.csv' WITH (FORMAT CSV, HEADER);
40 |
41 |     -- hospital dw table with dates later that one month ago from now
42 |     COPY (
43 |     WITH hospital1 as (
44 |     SELECT distinct name, address, specialty, emergency_phone,
            registration_phone,
45 |             admin_phone, hospital_id, department_id, a.tbl_last_date
46 |     FROM hospital a join hospital_department b
47 |     ON a.id = b.hospital_id
48 |     WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 month')
49 |     )
50 |     SELECT distinct a.name, a.address, a.specialty, a.emergency_phone, a.
            registration_phone,
51 |     a.admin_phone, b.name as "department_name", b.location as "
            department_location",
52 |     a.hospital_id, b.id as "department_id"
53 |     FROM hospital1 a join department b
54 |     ON a.department_id = b.id
55 |     ) TO '/tmp/hospital.csv' WITH (FORMAT CSV, HEADER);
56 |
57 |     -- insurance_invoice table with dates later that one month ago from now
58 |     COPY (
59 |     WITH invoice1 as (
60 |     SELECT distinct *
61 |     FROM invoice a join insurance_invoice b
62 |     on a.id = b.invoice_id
63 |     WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 month')
64 |     )
65 |     SELECT distinct a.invoice_id, b.insurance_company, b.insurance_number, a
            .date as "invoice_date",
66 |     a.amount as "invoice_amount", a.payment_type as "invoice_payment_type",
            b.id as "insurance_id"
67 |     FROM invoice1 a join insurance b
68 |     on a.insurance_id = b.id
69 |     ) TO '/tmp/insurance_invoice.csv' WITH (FORMAT CSV, HEADER);
70 |
71 |     -- patient with dates later that one month ago from now
72 |     COPY (
73 |     with tbl1 as (
74 |     select a.id as "patient_id", a.name, a.address, a.phone, a.birth_date, a
            .race, a.martial_status, a.gender,
75 |             a.blood_group, b.bed_number, b.floor, b.discharge_date
76 |             FROM patient a left join in_patient b
77 |             on a.id = b.id
78 |             WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1
            month')
79 |     ),
80 |     tbl2 as (
81 |     select distinct a.*, b.follow_up_date
82 |             from tbl1 a left join out_patient b
83 |             on a.patient_id = b.id
84 |     ),
85 |     tbl3 as (
86 |     select distinct a.name, b.treatment_id, c.invoice_id, a.address, a.phone
```

```
 87 |         , a.birth_date, a.race, a.martial_status,
    |             a.gender, a.blood_group, a.bed_number, a.floor, a.discharge_date
    |         , a.follow_up_date, a.patient_id
 88 |             from tbl2 a left join patient_treatment b on a.patient_id = b.
    |         patient_id
 89 |             left join patient_invoice c on a.patient_id = c.patient_id
 90 | ),
 91 | tbl4 as (
 92 | select distinct a.*, b.registration_id
 93 |             from tbl3 a left join patient_registration b on a.patient_id = b
    |         .patient_id
 94 | ),
 95 | tbl5 as (
 96 | select distinct a.*, b.registration_date as "treatment_registration_date
    |         ", c.emergency_contact_id
 97 |             from tbl4 a left join registration b on a.registration_id = b.id
 98 |             left join patient_emergency_contact c on a.patient_id = c.
    |         patient_id
 99 | ),
100 | tbl6 as (
101 | select distinct a.*, b.type, c.name as "emergency_name", c.address as "
    |         emergency_address", c.phone as "emergency_phone",
102 |             c.relationship as "emergency_relationship", c.id as "
    |         emergency_id"
103 |             from tbl5 a left join treatment b on a.treatment_id = b.id
104 |             left join emergency_contact c on a.emergency_contact_id = c.id
105 | ),
106 | tbl7 as (
107 | select distinct a.*, b.department_id
108 |             from tbl6 a left join department_patient b on a.patient_id = b.
    |         patient_id
109 | ),
110 | tbl8 as (
111 | select distinct a.*, b.hospital_id
112 |             from tbl7 a left join hospital_department b on a.department_id =
    |          b.department_id
113 | )
114 | select a.name, a.treatment_id, a.invoice_id, a.address, a.phone, a.
    |         birth_date, a.race,
115 | a.martial_status, a.gender, a.blood_group, a.bed_number, a.floor, a.
    |         discharge_date,
116 | a.follow_up_Date, a.type, a.treatment_registration_date, a.
    |         emergency_name, a.emergency_address,
117 | a.emergency_phone, a.emergency_relationship, a.emergency_id, a.
    |         hospital_id, a.department_id,
118 | a.patient_id
119 | from tbl8 a
120 | ) TO '/tmp/patient.csv' WITH (FORMAT CSV, HEADER);
121 |
122 | -- treatment with dates later that one month ago from now
123 | COPY (
124 | select distinct a.id as "treatment_id", a.date, a.type, a.result_status,
    |          a.description,
125 | b.laboratory as "laboratory_treatment", b.test_type as "lab_test_type",
    |         b.test_date as "lab_test_date",
126 | b.test_result as "lab_test_result", c.drug, c.dose as "drug_dose",
127 | d.surgery, d.description as "surgery_description", d.date as "
    |         surgery_date",
```

```
128 |  d.result as "surgery_result"
129 |  from treatment a left join laboratory_treatment b on a.id = b.id
130 |  left join drug_Treatment c on a.id = c.id
131 |  left join surgery_treatment d on a.id = d.id
132 |  ) TO '/tmp/treatment.csv' WITH (FORMAT CSV, HEADER);
133 |  -- FULL
```

Load data from an external table to the stage table

```
01 |  -- FULL
02 |  -- copy from external tables to stage dw tables
03 |  COPY stg_dw_hospital FROM '/tmp/hospital.csv' DELIMITER ',' CSV HEADER
        QUOTE '"' NULL '';
04 |  COPY stg_dw_insurance_invoice FROM '/tmp/insurance_invoice.csv'
        DELIMITER ',' CSV HEADER QUOTE '"' NULL '';
05 |  COPY stg_dw_treatment FROM '/tmp/treatment.csv' DELIMITER ',' CSV HEADER
         QUOTE '"' NULL '';
06 |  COPY stg_dw_doctor FROM '/tmp/doctor.csv' DELIMITER ',' CSV HEADER QUOTE
         '"' NULL '';
07 |  COPY stg_dw_patient FROM '/tmp/patient.csv' DELIMITER ',' CSV HEADER
        QUOTE '"' NULL '';
```

Loader

```
01 |  -- FULL LOAD
02 |
03 |  create or replace PROCEDURE  load_dw_insurance_invoice
04 |  ()
05 |  language plpgsql
06 |  as $$
07 |  DECLARE
08 |          dcnt integer := 0;
09 |          icnt integer := 0;
10 |          err_code int;
11 |          err_msg text;
12 |          c record;
13 |  BEGIN
14 |  for c in execute 'select * from stg_dw_insurance_invoice'
15 |  loop
16 |      delete from dw_insurance_invoice where invoice_id=c.invoice_id and
        insurance_id=c.insurance_id;
17 |      dcnt := dcnt+1;
18 |       INSERT INTO dw_insurance_invoice
19 |       VALUES (c.invoice_id, c.insurance_company, c.insurance_number, c.
        invoice_date, c.invoice_amount, c.invoice_payment_type, c.
        insurance_id, NOW());
20 |       icnt := icnt+1;
21 |       raise notice
22 |       'Total Deleted Record: % Total Inserted Records: %', dcnt, icnt;
23 |  end loop;
24 |       raise notice
25 |       'Total Deleted Record: % Total Inserted Records: %', dcnt, icnt;
26 |  EXCEPTION
27 |      WHEN OTHERS THEN
28 |          err_code := SQLSTATE;
29 |          err_msg  := SQLERRM;
30 |                raise notice
31 |          'Error code %: %', err_code, err_msg;
```

```
32 |  END;$$
```

Incremental

Export and transform data to an external table

```
01 |  -- INCREMENTAL DAILY
02 |  COPY (
03 |  WITH doctor as (
04 |  SELECT distinct a.id, a.name, a.office_phone, a.personal_phone, a.
          specialty,
05 |  b.hire_date, b.annual_pay, c.contract_date, c.contract_phone, c.
          weekly_pay, c.min_weekly_hours
06 |  ,c.overtime_hourly_pay, d.disease_id
07 |  FROM doctor a
08 |  LEFT JOIN fulltime_doctor b on a.id = b.id
09 |  LEFT JOIN consulting_doctor c on a.id = c.id
10 |  JOIN doctor_disease d on a.id = d.doctor_id
11 |  WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 day')
12 |  ),
13 |  doctor2 as (
14 |  SELECT a.id, a.name, a.office_phone, a.personal_phone, a.specialty, a.
          hire_date, a.annual_pay, a.contract_date, a.contract_phone, a.
          weekly_pay, a.min_weekly_hours, a.overtime_hourly_pay, e.description
           as "disease_description", e.type as "disease_type", e.icd as "
          disease_id"
15 |  FROM doctor a join disease e on a.disease_id = e.icd
16 |  ),
17 |  doctor3 as (
18 |  SELECT a.*, b.department_id
19 |  FROM doctor2 a join department_doctor b on a.id = b.doctor_id
20 |  ),
21 |  doctor4 as (
22 |  SELECT distinct a.*, b.hospital_id
23 |  FROM doctor3 a join hospital_department b on a.department_id = b.
          department_id
24 |  ),
25 |  doctor5 as (
26 |  SELECT distinct a.*, b.patient_id
27 |  FROM doctor4 a join doctor_patient b on a.id = b.doctor_id
28 |  ),
29 |  doctor6 as (
30 |  SELECT distinct a.*, b.birth_date as "patient_dob"
31 |  FROM doctor5 a join patient b on a.patient_id = b.id
32 |  )
33 |  SELECT a.name, a.office_phone, a.personal_phone, a.specialty, a.
          hire_date,
34 |  a.annual_pay, a.contract_date, a.contract_phone, a.weekly_pay, a.
          min_weekly_hours,
35 |  a.overtime_hourly_pay, a.disease_description, a.disease_type, a.
          hospital_id,
36 |  a.department_id, a.disease_id, a.patient_id, a.patient_dob, a.id as "
          doctor_id"
37 |  FROM doctor6 a
38 |  ) TO '/tmp/doctor.csv' WITH (FORMAT CSV, HEADER);
39 |
```

```
40 |  -- hospital dw table with dates later that one month ago from now
41 |  COPY (
42 |  WITH hospital1 as (
43 |  SELECT distinct name, address, specialty, emergency_phone,
           registration_phone,
44 |          admin_phone, hospital_id, department_id, a.tbl_last_date
45 |  FROM hospital a join hospital_department b
46 |  ON a.id = b.hospital_id
47 |  WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 day')
48 |  )
49 |  SELECT distinct a.name, a.address, a.specialty, a.emergency_phone, a.
           registration_phone,
50 |  a.admin_phone, b.name as "department_name", b.location as "
           department_location",
51 |  a.hospital_id, b.id as "department_id"
52 |  FROM hospital1 a join department b
53 |  ON a.department_id = b.id
54 |  ) TO '/tmp/hospital.csv' WITH (FORMAT CSV, HEADER);
55 |
56 |  -- insurance_invoice table with dates later that one month ago from now
57 |  COPY (
58 |  WITH invoice1 as (
59 |  SELECT distinct *
60 |  FROM invoice a join insurance_invoice b
61 |  on a.id = b.invoice_id
62 |  WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1 day')
63 |  )
64 |  SELECT distinct a.invoice_id, b.insurance_company, b.insurance_number, a
           .date as "invoice_date",
65 |  a.amount as "invoice_amount", a.payment_type as "invoice_payment_type",
           b.id as "insurance_id"
66 |  FROM invoice1 a join insurance b
67 |  on a.insurance_id = b.id
68 |  ) TO '/tmp/insurance_invoice.csv' WITH (FORMAT CSV, HEADER);
69 |
70 |  -- patient with dates later that one month ago from now
71 |  COPY (
72 |  with tbl1 as (
73 |  select a.id as "patient_id", a.name, a.address, a.phone, a.birth_date, a
           .race, a.martial_status, a.gender,
74 |          a.blood_group, b.bed_number, b.floor, b.discharge_date
75 |          FROM patient a left join in_patient b
76 |          on a.id = b.id
77 |          WHERE a.tbl_last_date > date_trunc('day', NOW() - interval '1
       day')
78 |  ),
79 |  tbl2 as (
80 |  select distinct a.*, b.follow_up_date
81 |          from tbl1 a left join out_patient b
82 |          on a.patient_id = b.id
83 |  ),
84 |  tbl3 as (
85 |  select distinct a.name, b.treatment_id, c.invoice_id, a.address, a.phone
           , a.birth_date, a.race, a.martial_status,
86 |          a.gender, a.blood_group, a.bed_number, a.floor, a.discharge_date
           , a.follow_up_date, a.patient_id
87 |          from tbl2 a left join patient_treatment b on a.patient_id = b.
       patient_id
```

```
 88 |          left join patient_invoice c on a.patient_id = c.patient_id
 89 | ),
 90 | tbl4 as (
 91 | select distinct a.*, b.registration_id
 92 |        from tbl3 a left join patient_registration b on a.patient_id = b
        .patient_id
 93 | ),
 94 | tbl5 as (
 95 | select distinct a.*, b.registration_date as "treatment_registration_date
        ", c.emergency_contact_id
 96 |        from tbl4 a left join registration b on a.registration_id = b.id
 97 |        left join patient_emergency_contact c on a.patient_id = c.
        patient_id
 98 | ),
 99 | tbl6 as (
100 | select distinct a.*, b.type, c.name as "emergency_name", c.address as "
        emergency_address", c.phone as "emergency_phone",
101 |        c.relationship as "emergency_relationship", c.id as "
        emergency_id"
102 |        from tbl5 a left join treatment b on a.treatment_id = b.id
103 |        left join emergency_contact c on a.emergency_contact_id = c.id
104 | ),
105 | tbl7 as (
106 | select distinct a.*, b.department_id
107 |        from tbl6 a left join department_patient b on a.patient_id = b.
        patient_id
108 | ),
109 | tbl8 as (
110 | select distinct a.*, b.hospital_id
111 |        from tbl7 a left join hospital_department b on a.department_id =
         b.department_id
112 | )
113 | select a.name, a.treatment_id, a.invoice_id, a.address, a.phone, a.
        birth_date, a.race,
114 | a.martial_status, a.gender, a.blood_group, a.bed_number, a.floor, a.
        discharge_date,
115 | a.follow_up_Date, a.type, a.treatment_registration_date, a.
        emergency_name, a.emergency_address,
116 | a.emergency_phone, a.emergency_relationship, a.emergency_id, a.
        hospital_id, a.department_id,
117 | a.patient_id
118 | from tbl8 a
119 | ) TO '/tmp/patient.csv' WITH (FORMAT CSV, HEADER);
120 |
121 | -- treatment with dates later that one month ago from now
122 | COPY (
123 | select distinct a.id as "treatment_id", a.date, a.type, a.result_status,
         a.description,
124 | b.laboratory as "laboratory_treatment", b.test_type as "lab_test_type",
        b.test_date as "lab_test_date",
125 | b.test_result as "lab_test_result", c.drug, c.dose as "drug_dose",
126 | d.surgery, d.description as "surgery_description", d.date as "
        surgery_date",
127 | d.result as "surgery_result"
128 | from treatment a left join laboratory_treatment b on a.id = b.id
129 | left join drug_Treatment c on a.id = c.id
130 | left join surgery_treatment d on a.id = d.id
131 | ) TO '/tmp/treatment.csv' WITH (FORMAT CSV, HEADER);
```

Load data from an external table to the stage table

```
01 |  -- INCREMENTAL
02 |  -- copy from external tables to stage dw incremental tables
03 |  COPY stg_dw_doctor FROM '/tmp/doctor_inc.csv' DELIMITER ',' CSV HEADER
        QUOTE '"' NULL '';
```

Loader

```
01 |  -- INCREMENTAL LOAD
02 |  create or replace PROCEDURE  load_merge_dw_insurance_invoice
03 |  ()
04 |  language plpgsql
05 |  as $$
06 |  DECLARE
07 |          err_code int;
08 |          err_msg text;
09 |  BEGIN
10 |      INSERT INTO dw_insurance_invoice(
11 |                  invoice_id, insurance_company, insurance_number,
        invoice_date,
12 |                  invoice_amount, invoice_payment_type, insurance_id,
        tbl_last_date)
13 |      SELECT *
14 |          FROM stg_dw_insurance_invoice
15 |      ON CONFLICT(invoice_id)
16 |          DO UPDATE
17 |                  SET invoice_id=dw_insurance_invoice.invoice_id,
18 |           insurance_company =dw_insurance_invoice.insurance_company,
19 |           insurance_number=dw_insurance_invoice.insurance_number,
20 |           invoice_date=dw_insurance_invoice.invoice_date,
21 |           invoice_amount=dw_insurance_invoice.invoice_amount,
22 |           invoice_payment_type=dw_insurance_invoice.invoice_payment_type,
23 |           insurance_id=dw_insurance_invoice.insurance_id,
24 |                  tbl_last_date = NOW();
25 |  EXCEPTION
26 |      WHEN OTHERS THEN
27 |          err_code := SQLSTATE;
28 |          err_msg  := SQLERRM;
29 |                  RAISE NOTICE
30 |          'Error code %: %', err_code, err_msg;
31 |  END;$$
```