1. Pembuatan Database.

2. Pembuatan Table:

```
1   CREATE TABLE employee (
2       id SERIAL PRIMARY KEY,
3       nik VARCHAR(255),
4       name VARCHAR(255),
5       is_active BOOLEAN,
6       start_date DATE NOT NULL,
7       end_date DATE NOT NULL,
8       created_by VARCHAR(255),
9       updated_by VARCHAR(255),
10      created_at DATE NOT NULL DEFAULT CURRENT_DATE,
11      updated_at DATE NOT NULL DEFAULT CURRENT_DATE
12  );
```
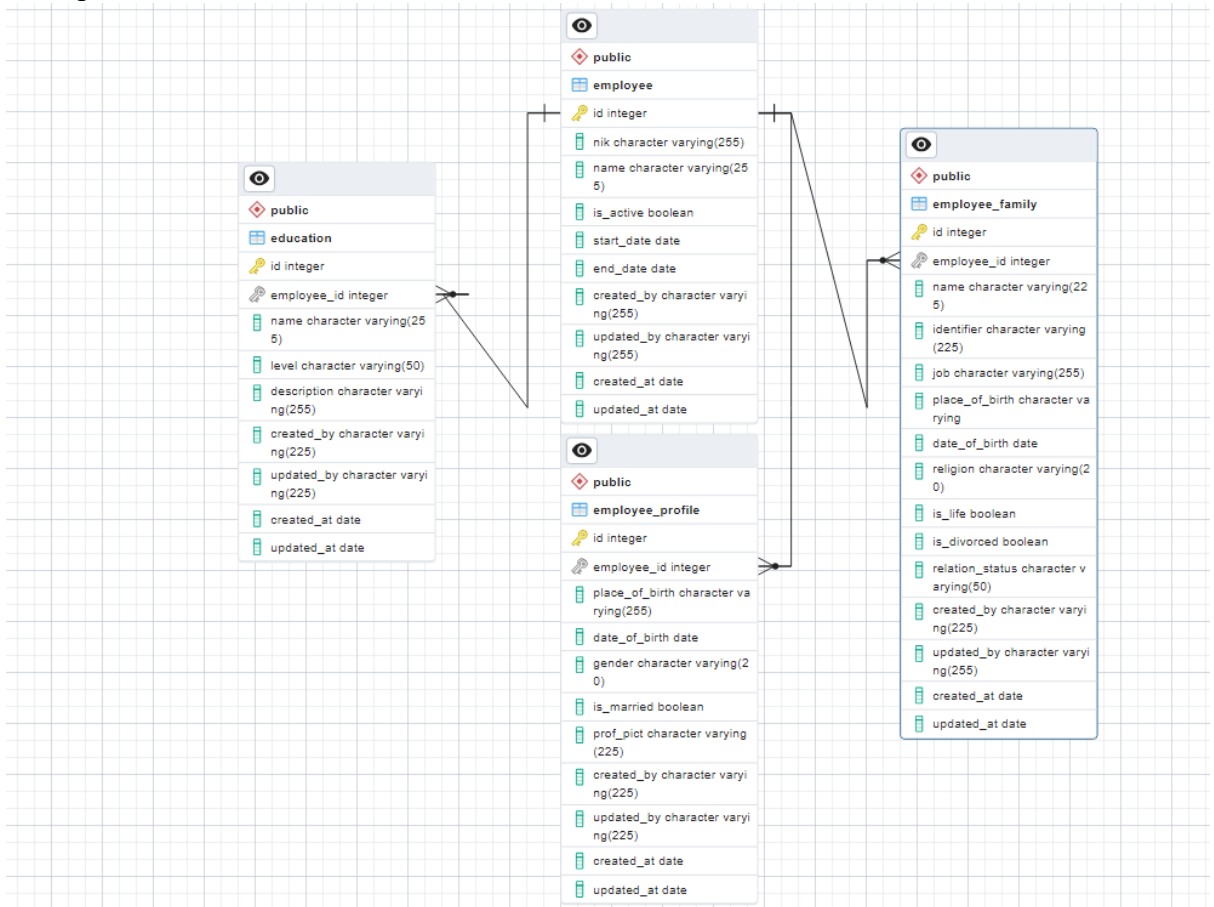
```sql
1    CREATE TABLE employee_profile (
2        id SERIAL PRIMARY KEY,
3        employee_id INT NOT NULL,
4        place_of_birth VARCHAR(255),
5        date_of_birth DATE NULL,
6        gender VARCHAR(20) CHECK (gender IN ('Laki-laki', 'Perempuan')),
7        is_married BOOLEAN,
8        prof_pict VARCHAR(225),
9        created_by VARCHAR(225),
10       updated_by VARCHAR(225),
11       created_at DATE NOT NULL DEFAULT CURRENT_DATE,
12       updated_at DATE NOT NULL DEFAULT CURRENT_DATE,
13       CONSTRAINT fk_employee FOREIGN KEY (employee_id) REFERENCES employee (id)
14   );
```

```sql
1    CREATE TABLE employee_family (
2        id SERIAL PRIMARY KEY,
3        employee_id INT NOT NULL,
4        name VARCHAR(225),
5        identifier VARCHAR(225),
6        job VARCHAR(255),
7        place_of_birth VARCHAR,
8        date_of_birth DATE,
9        religion VARCHAR(20) CHECK (religion IN ('Islam', 'Katolik', 'Buddha', 'Protestan', 'Konghucu
0        is_life BOOLEAN,
1        is_divorced BOOLEAN,
2        relation_status VARCHAR(50) CHECK (relation_status IN ('Suami', 'Istri', 'Anak', 'Anak Sambun
3        created_by VARCHAR(225),
4        updated_by VARCHAR(255),
5        created_at DATE NOT NULL DEFAULT CURRENT_DATE,
6        updated_at DATE NOT NULL DEFAULT CURRENT_DATE,
7        CONSTRAINT fk_employee_family FOREIGN KEY (employee_id) REFERENCES employee (id)
8    );
```

```sql
1    CREATE TABLE education (
2        id SERIAL PRIMARY KEY,
3        employee_id INT NOT NULL,
4        name VARCHAR(255),
5        level VARCHAR(50) CHECK (level IN ('TK', 'SD', 'SMP', 'SMA', 'Strata 1', 'Strata 2', 'Doktor'
6        description VARCHAR(255) NOT NULL,
7        created_by VARCHAR(225) NOT NULL,
8        updated_by VARCHAR(225) NOT NULL,
9        created_at DATE NOT NULL DEFAULT CURRENT_DATE,
10       updated_at DATE NOT NULL DEFAULT CURRENT_DATE,
11       CONSTRAINT fk_employee_edu FOREIGN KEY (employee_id) REFERENCES employee (id)
12   );
```

3. ERD pada table setelah dibuat

4. Insert datas

```
1  INSERT INTO employee (nik, name, is_active, start_date, end_date, created_by, updated_by, created_at, updated_at)
2  VALUES
3      ('12341', 'Jeka Saragih', TRUE, '2020-01-01', '2025-12-31', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
4      ('12342', 'Suwardi', TRUE, '2021-05-15', '2025-05-14', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
5      ('12343', 'Arthur Morgan', FALSE, '2019-06-10', '2025-06-09', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
6      ('12344', 'Khabib Nurmagomedov', TRUE, '2022-03-25', '2026-03-24', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE);
```

Query   Query History

```
1
2   INSERT INTO employee_profile (employee_id, place_of_birth,date_of_birth, gender, is_married, prof_pict, created_by, updated_by, created_at, updated_at)
3   VALUES
4       (1, 'Medan','1985-05-20', 'Laki-laki', TRUE, 'jeka_pic.jpg', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
5       (2, 'Magetan','1982-02-10', 'Laki-laki', TRUE, 'suwardi_pic.jpg', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
6       (3, 'Saint Dennis','1815-02-25', 'Laki-laki', TRUE, 'Arthur_pic.jpg', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
7       (4, 'Dagestan','1988-08-12', 'Laki-laki', TRUE, 'Khabib_pic.jpg', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE);
8
9   INSERT INTO employee_family (employee_id, name, identifier, job, place_of_birth, date_of_birth, religion, is_life, is_divorced, relation_status, created_by, updated_by, created_at, updated_at)
10  VALUES
11      (1, 'Siti Ropeah', '54321', 'Guru', 'Jakarta', '1985-05-20', 'Katolik', TRUE, FALSE, 'Istri', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
12      (2, 'Laura', '98765', 'PNS', 'Bali', '1990-03-15', 'Katolik', TRUE, FALSE, 'Istri', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
13      (3, 'Luna Maya', '11234', 'PNS', 'Bogor', '1992-07-25', 'Buddha', TRUE, FALSE, 'Istri', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
14      (4, 'Rayanthi', '33456', 'Artist', 'Jakarta', '1988-11-30', 'Protestan', TRUE, FALSE, 'Istri', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
15      (4, 'Suryanti', '44567', 'Pilot', 'Dagestan', '1998-08-12', 'Protestan', TRUE, FALSE, 'Anak', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE);
16
17  INSERT INTO education (employee_id, name, level, description, created_by, updated_by, created_at, updated_at)
18  VALUES
19      (1, 'Universitas Negeri Jakarta', 'Strata 1', 'Sarjana', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
20      (2, 'Universitas Gunadarma', 'Strata 2', 'Sarjana', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
21      (3, 'Universitas Udayana', 'Doktor', 'Doktor', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE),
22      (4, 'SMA Negeri 2 Rusia', 'SMA', 'Sekolah Menengah Atas', 'admin', 'admin', CURRENT_DATE, CURRENT_DATE);
23
```

5. Show data

Query   Query History

```
1   Select id,nik,name,is_active,start_date,end_date from employee;
```

Data Output   Messages   Notifications

id [PK] integer	nik character varying (255)	name character varying (255)	is_active boolean	start_date date	end_date date
1	12341	Jeka Saragih	true	2020-01-01	2025-12-31
2	12342	Suwardi	true	2021-05-15	2025-05-14
3	12343	Arthur Morgan	false	2019-06-10	2025-06-09
4	12344	Khabib Nurmagomedov	true	2022-03-25	2026-03-24

Query   Query History   Scratch Pad ✕

```
1   Select
2       e.*
3       from education e
4       join employee em on e.employee_id = em.id;
```

Data Output   Messages   Notifications

id [PK] integer	employee_id integer	name character varying (255)	level character varying (50)	description character varying (255)	created_by character varying (225)	updated_by character varying (225)	created_at date	updated_at date
1	1	Universitas Negeri Jakarta	Strata 1	Sarjana	admin	admin	2025-01-21	2025-01-21
2	2	Universitas Gunadarma	Strata 2	Sarjana	admin	admin	2025-01-21	2025-01-21
3	3	Universitas Udayana	Doktor	Doktor	admin	admin	2025-01-21	2025-01-21
4	4	SMA Negeri 2 Rusia	SMA	Sekolah Menengah Atas	admin	admin	2025-01-21	2025-01-21

Query   Query History   Scratch Pad ✕

```
1   Select
2       ep.*
3       from employee_profile ep
4       join employee em on ep.employee_id = em.id;
```

Data Output   Messages   Notifications

id [PK] integer	employee_id integer	place_of_birth character varying (255)	date_of_birth date	gender character varying (20)	is_married boolean	prof_pict character varying (225)	created_by character varying (225)	updated_by character varying (225)	created_at date	updated_at date
1	1	Medan	1985-05-20	Laki-laki	true	jeka_pic.jpg	admin	admin	2025-01-22	2025-01-22
2	2	Magetan	1982-02-10	Laki-laki	true	suwardi_pic.jpg	admin	admin	2025-01-22	2025-01-22
3	3	Saint Dennis	1815-02-25	Laki-laki	true	Arthur_pic.jpg	admin	admin	2025-01-22	2025-01-22
4	4	Dagestan	1988-08-12	Laki-laki	true	Khabib_pic.jpg	admin	admin	2025-01-22	2025-01-22

```sql
1  Select
2      ef.*
3      from employee_family ef
4      join employee em on ef.employee_id = em.id
5      where ef.employee_id = 4;
```

Data Output   Messages   Notifications

id [PK] integer	employee_id integer	name character varying (225)	identifier character varying (225)	job character varying (255)	place_of_birth character varying	date_of_birth date	religion character varying (20)	is_life boolean	is_divorced boolean	relation_status character varying (50)	created_by character varying (225)	updated_by character varying (255)	created_at date	updated_at date
1	4	4	Rayanthi	33456	Artist	Jakarta	1988-11-30	Protestan	true	false	Istri	admin	admin	2025-01-22	2025-01-22
2	5	4	Suryanti	44567	Pilot	Dagestan	1998-08-12	Protestan	true	false	Anak	admin	admin	2025-01-22	2025-01-22

```sql
1  SELECT
2      e.id AS employee_id,
3      e.nik,
4      e.name,
5      e.is_active,
6      ep.gender,
7      CONCAT(EXTRACT(YEAR FROM CURRENT_DATE) - EXTRACT(YEAR FROM ep.date_of_birth), ' Years Old') AS age,
8      ed.name AS school_name,
9      ed.level,
10     CASE
11         WHEN COUNT(CASE WHEN ef.relation_status = 'Istri' THEN 1 END) > 0
12             OR COUNT(CASE WHEN ef.relation_status = 'Anak' THEN 1 END) > 0 THEN
13             CONCAT(
14                 CASE
15                     WHEN COUNT(CASE WHEN ef.relation_status = 'Istri' THEN 1 END) > 0
16                     THEN CONCAT(COUNT(CASE WHEN ef.relation_status = 'Istri' THEN 1 END), ' Istri')
17                     ELSE ''
18                 END,
19                 CASE
20                     WHEN COUNT(CASE WHEN ef.relation_status = 'Istri' THEN 1 END) > 0
21                         AND COUNT(CASE WHEN ef.relation_status = 'Anak' THEN 1 END) > 0
22                     THEN ' & '
23                     ELSE ''
24                 END,
25                 CASE
26                     WHEN COUNT(CASE WHEN ef.relation_status = 'Anak' THEN 1 END) > 0
27                     THEN CONCAT(COUNT(CASE WHEN ef.relation_status = 'Anak' THEN 1 END), ' Anak')
28                     ELSE ''
29                 END
30             )
31         ELSE '-'
32     END AS family_data
33 FROM employee e
34 LEFT JOIN employee_profile ep ON e.id = ep.employee_id
35 LEFT JOIN education ed ON e.id = ed.employee_id
36 LEFT JOIN employee_family ef ON e.id = ef.employee_id
37 GROUP BY
38     e.id, e.is_active, ep.gender, ep.date_of_birth, ed.name, ed.level
39 order by
40     e.id ASC;
41
```

Data Output   Messages   Notifications

	employee_id integer	nik character varying (255)	name character varying (255)	is_active boolean	gender character varying (20)	age text	school_name character varying (255)	level character varying (50)	family_data text
1	1	12341	Jeka Saragih	true	Laki-laki	40 Years Old	Universitas Negeri Jakarta	Strata 1	1 Istri
2	2	12342	Suwardi	true	Laki-laki	43 Years Old	Universitas Gunadarma	Strata 2	1 Istri
3	3	12343	Arthur Morgan	false	Laki-laki	210 Years Old	Universitas Udayana	Doktor	1 Istri
4	4	12344	Khabib Nurmagomedov	true	Laki-laki	37 Years Old	SMA Negeri 2 Rusia	SMA	1 Istri & 1 Anak