

**Министерство науки и высшего образования Российской Федерации**  
федеральное государственное автономное образовательное учреждение высшего  
образования  
**«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»**

**Отчет**

по лабораторной работе по теме: “ **Создание таблиц в PostgreSQL**”

по дисциплине «**Проектирование баз данных**»

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**УНИВЕРСИТЕТ ИТМО**

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## Ход работы

### Создание базы данных

```
1 CREATE DATABASE "DatabaseArchitectureLabWorks"
2     WITH
3     OWNER = postgres
4     ENCODING = 'UTF8'
5     CONNECTION LIMIT = -1
6     IS_TEMPLATE = False;
```

### Создание схемы

◆ Create - Schema

General Security Default privileges SQL

```
1 CREATE SCHEMA "DatabaseArchitectureLabWorks"
2     AUTHORIZATION postgres;
```

### Создание Enumeration типов

General Definition Security SQL

```
1 CREATE TYPE "DatabaseArchitectureLabWorks"."Sex" AS ENUM
2     ('MALE', 'FEMALE');
3
4 ALTER TYPE "DatabaseArchitectureLabWorks"."Sex"
5     OWNER TO postgres;
```

```
1 -- Type: FamilyStatus
2
3 -- DROP TYPE IF EXISTS "DatabaseArchitectureLabWorks"."FamilyStatus";
4
5 CREATE TYPE "DatabaseArchitectureLabWorks"."FamilyStatus" AS ENUM
6     ('SINGLE', 'DATING', 'MARRIED', 'COMPLICATED');
7
8 ALTER TYPE "DatabaseArchitectureLabWorks"."FamilyStatus"
9     OWNER TO postgres;
10
```

```

1  -- Type: UserGroupRole
2
3  -- DROP TYPE IF EXISTS "DatabaseArchitectureLabWorks"."UserGroupRole";
4
5  CREATE TYPE "DatabaseArchitectureLabWorks"."UserGroupRole" AS ENUM
6      ('ADMIN', 'MODERATOR', 'EDITOR', 'MEMBER');
7
8  ALTER TYPE "DatabaseArchitectureLabWorks"."UserGroupRole"
9      OWNER TO postgres;
10 |

```

## Создание таблиц

```

1  CREATE TABLE "DatabaseArchitectureLabWorks"."User"
2  (
3      id integer NOT NULL GENERATED ALWAYS AS IDENTITY,
4      username character varying(30) NOT NULL,
5      "firstName" character varying(20) NOT NULL,
6      surname character varying(20) NOT NULL,
7      "middleName" character varying(20),
8      "phoneNumber" character varying(16) NOT NULL,
9      email character varying(255) NOT NULL,
10     password character varying(40) NOT NULL,
11     sex "DatabaseArchitectureLabWorks"."Sex" NOT NULL,
12     "familyStatus" "DatabaseArchitectureLabWorks"."FamilyStatus",
13     status character varying(255),
14     "registrationDate" timestamp without time zone NOT NULL,
15     "lastLoginDate" timestamp without time zone NOT NULL,
16     CONSTRAINT id PRIMARY KEY (id),
17     CONSTRAINT id UNIQUE (id),
18     CONSTRAINT username UNIQUE (username)
19 );
20
21 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."User"
22     OWNER to postgres;

```

```

1  -- Table: DatabaseArchitectureLabWorks.Post
2
3  -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Post";
4
5  CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."Post"
6  (
7      id integer NOT NULL GENERATED ALWAYS AS IDENTITY ( INCREMENT 1 START 1 MINVALUE 1 MAXVALUE 2147483647 CACHE 1
8      "userId" integer NOT NULL,
9      content text COLLATE pg_catalog."default" NOT NULL,
10     "postDate" timestamp without time zone NOT NULL,
11     CONSTRAINT "postId" PRIMARY KEY (id),
12     CONSTRAINT "userId" FOREIGN KEY ("userId")
13         REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
14         ON UPDATE NO ACTION
15         ON DELETE NO ACTION
16 )
17
18 TABLESPACE pg_default;
19
20 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Post"
21     OWNER to postgres;

```

```

1  -- Table: DatabaseArchitectureLabWorks.Comment
2
3  -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Comment";
4
5  CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."Comment"
6  (
7      id integer NOT NULL GENERATED ALWAYS AS IDENTITY ( INCREMENT 1 START 1 MINVALUE 1 MAXVALUE 2147483647 CACHE 1
8      "postId" integer NOT NULL,
9      "userId" integer NOT NULL,
10     content text COLLATE pg_catalog."default" NOT NULL,
11     "commentDate" timestamp without time zone NOT NULL,
12     CONSTRAINT "commentId" PRIMARY KEY (id),
13     CONSTRAINT "postId" FOREIGN KEY ("postId")
14         REFERENCES "DatabaseArchitectureLabWorks"."Post" (id) MATCH SIMPLE
15         ON UPDATE NO ACTION
16         ON DELETE NO ACTION,
17     CONSTRAINT "userId" FOREIGN KEY ("userId")
18         REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
19         ON UPDATE NO ACTION
20         ON DELETE NO ACTION

```

```

1  -- Table: DatabaseArchitectureLabWorks.Like
2
3  -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Like";
4
5  CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."Like"
6  (
7      id integer NOT NULL GENERATED ALWAYS AS IDENTITY ( INCREMENT 1 START 1 MINVALUE 1 MAXVALUE 2147483647 CACHE 1
8      "postId" integer NOT NULL,
9      "userId" integer NOT NULL,
10     "likeDate" timestamp without time zone NOT NULL,
11     CONSTRAINT "likeId" PRIMARY KEY (id),
12     CONSTRAINT "postId" FOREIGN KEY ("postId")
13         REFERENCES "DatabaseArchitectureLabWorks"."Post" (id) MATCH SIMPLE
14         ON UPDATE NO ACTION
15         ON DELETE NO ACTION,
16     CONSTRAINT "userId" FOREIGN KEY ("userId")
17         REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
18         ON UPDATE NO ACTION
19         ON DELETE NO ACTION
20 )

```

```

1 CREATE TABLE "DatabaseArchitectureLabWorks"."Group"
2 (
3     id integer NOT NULL GENERATED ALWAYS AS IDENTITY,
4     groupname character varying(30) NOT NULL,
5     name character varying(40) NOT NULL,
6     "creationDate" timestamp without time zone NOT NULL,
7     PRIMARY KEY (id),
8     CONSTRAINT id UNIQUE (id),
9     CONSTRAINT groupname UNIQUE (groupname)
10 );
11
12 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Group"
13     OWNER to postgres;

```

```

1 -- Table: DatabaseArchitectureLabWorks.GroupMember
2
3 -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."GroupMember";
4
5 CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."GroupMember"
6 (
7     "userId" integer NOT NULL,
8     "groupId" integer NOT NULL,
9     role "DatabaseArchitectureLabWorks"."UserGroupRole" NOT NULL,
10    CONSTRAINT "GroupMember_pkey" PRIMARY KEY ("userId", "groupId"),
11    CONSTRAINT "groupId" FOREIGN KEY ("groupId")
12        REFERENCES "DatabaseArchitectureLabWorks"."Group" (id) MATCH SIMPLE
13        ON UPDATE NO ACTION
14        ON DELETE NO ACTION,
15    CONSTRAINT "userId" FOREIGN KEY ("userId")
16        REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
17        ON UPDATE NO ACTION
18        ON DELETE NO ACTION
19 )
20
21 TABLESPACE pg_default;

```

```

1 -- Table: DatabaseArchitectureLabWorks.Conversation
2
3 -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Conversation";
4
5 CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."Conversation"
6 (
7     id integer NOT NULL GENERATED ALWAYS AS IDENTITY ( INCREMENT 1 START 1 MINVALUE 1 MAXVALUE 2147483647 CACHE 1
8     name character varying(255) COLLATE pg_catalog."default" NOT NULL,
9     CONSTRAINT "conversationId" PRIMARY KEY (id)
10 )
11
12 TABLESPACE pg_default;
13
14 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Conversation"
15     OWNER to postgres;

```

```

1 CREATE TABLE "DatabaseArchitectureLabWorks"."Message"
2 (
3     id integer NOT NULL GENERATED ALWAYS AS IDENTITY,
4     "conversationId" integer NOT NULL,
5     content text NOT NULL,
6     "sendDate" timestamp without time zone,
7     PRIMARY KEY (id),
8     CONSTRAINT "messageId" UNIQUE (id),
9     CONSTRAINT "conversationId" FOREIGN KEY ("conversationId")
10         REFERENCES "DatabaseArchitectureLabWorks"."Conversation" (id) MATCH SIMPLE
11         ON UPDATE NO ACTION
12         ON DELETE NO ACTION
13         NOT VALID
14 );
15
16 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Message"
17     OWNER to postgres;

```

```

1 -- Table: DatabaseArchitectureLabWorks.UsersConversations
2
3 -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."UsersConversations";
4
5 CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."UsersConversations"
6 (
7     "userId" integer NOT NULL,
8     "conversationId" integer NOT NULL,
9     CONSTRAINT "UsersConversations_pkey" PRIMARY KEY ("userId", "conversationId"),
10    CONSTRAINT "conversationId" FOREIGN KEY ("conversationId")
11        REFERENCES "DatabaseArchitectureLabWorks"."Conversation" (id) MATCH SIMPLE
12        ON UPDATE NO ACTION
13        ON DELETE NO ACTION,
14    CONSTRAINT "userId" FOREIGN KEY ("userId")
15        REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
16        ON UPDATE NO ACTION
17        ON DELETE NO ACTION
18 )
19
20 TABLESPACE pg_default;
21
22 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."UsersConversations"
23     OWNER to postgres;

```

```
1  |-- Table: DatabaseArchitectureLabWorks.Friendship
2
3  -- DROP TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Friendship";
4
5  CREATE TABLE IF NOT EXISTS "DatabaseArchitectureLabWorks"."Friendship"
6  (
7      "userId" integer NOT NULL,
8      "friendId" integer NOT NULL,
9      "friendshipDate" timestamp without time zone NOT NULL,
10     CONSTRAINT "Friendship_pkey" PRIMARY KEY ("userId", "friendId"),
11     CONSTRAINT "friendId" FOREIGN KEY ("friendId")
12         REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
13         ON UPDATE NO ACTION
14         ON DELETE NO ACTION,
15     CONSTRAINT "userId" FOREIGN KEY ("userId")
16         REFERENCES "DatabaseArchitectureLabWorks"."User" (id) MATCH SIMPLE
17         ON UPDATE NO ACTION
18         ON DELETE NO ACTION
19 )
20
21 TABLESPACE pg_default;
22
23 ALTER TABLE IF EXISTS "DatabaseArchitectureLabWorks"."Friendship"
24     OWNER to postgres;
```

# Добавление данных

## С использованием SQL

```
INSERT INTO "DatabaseArchitectureLabWorks"."User" (
  username,
  firstName,
  surname,
  middleName,
  phoneNumber,
  email,
  password,
  sex,
  familyStatus,
  status,
  registrationDate,
  lastLoginDate
) VALUES
  ('user1', 'Sergey', 'Yurpalov', 'Nicolayevich', '+78005553535', 'random@mail.com', 'password', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), '123', '2023-09-24 10:00:00', '2023-09-24 10:15:00', '2023-09-24 10:15:00'),
  ('user2', 'Jane', 'Smith', 'Marie', '+987654321', 'user2@example.com', 'password2', (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 10:16:00', '2023-09-24 10:30:00', '2023-09-24 10:30:00'),
  ('user3', 'William', 'Johnson', 'Henry', '+111111111', 'user3@example.com', 'password3', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'male', '2023-09-24 10:30:00', '2023-09-24 10:45:00', '2023-09-24 10:45:00'),
  ('user4', 'Emily', 'Davis', 'Rose', '+222222222', 'user4@example.com', 'password4', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'widow', '2023-09-24 10:46:00', '2023-09-24 11:00:00', '2023-09-24 11:00:00'),
  ('user5', 'James', 'Wilson', 'Lee', '+333333333', 'user5@example.com', 'password5', (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 11:00:00', '2023-09-24 11:15:00', '2023-09-24 11:15:00'),
  ('user6', 'Olivia', 'Brown', 'Grace', '+444444444', 'user6@example.com', 'password6', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'divorced', '2023-09-24 11:16:00', '2023-09-24 11:30:00', '2023-09-24 11:30:00'),
  ('user7', 'Benjamin', 'Anderson', 'Samuel', '+555555555', 'user7@example.com', 'password7', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'divorced', '2023-09-24 11:30:00', '2023-09-24 11:45:00', '2023-09-24 11:45:00'),
  ('user8', 'Sophia', 'Smith', NULL, '+666666666', 'user8@example.com', 'password8', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'widow', '2023-09-24 11:46:00', '2023-09-24 12:00:00', '2023-09-24 12:00:00'),
  ('user9', 'Liam', 'Johnson', 'Michael', '+777777777', 'user9@example.com', 'password9', (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), 'message', '2023-09-24 12:00:00', '2023-09-24 12:15:00', '2023-09-24 12:15:00'),
  ('user10', 'Ava', 'Davis', 'Rose', '+888888888', 'user10@example.com', 'password10', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 12:16:00', '2023-09-24 12:30:00', '2023-09-24 12:30:00'),
  ('user11', 'Ethan', 'Wilson', 'Lee', '+999999999', 'user11@example.com', 'password11', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 12:30:00', '2023-09-24 12:45:00', '2023-09-24 12:45:00'),
  ('user12', 'Isabella', 'Brown', NULL, '+101010101', 'user12@example.com', 'password12', (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 12:46:00', '2023-09-24 13:00:00', '2023-09-24 13:00:00'),
  ('user13', 'Mason', 'Anderson', 'Samuel', '+111111111', 'user13@example.com', 'password13', (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 13:00:00', '2023-09-24 13:15:00', '2023-09-24 13:15:00'),
  ('user14', 'Emma', 'Smith', 'Grace', '+121212121', 'user14@example.com', 'password14', (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."Sex")), (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."FamilyStatus")), NULL, '2023-09-24 13:16:00', '2023-09-24 13:30:00', '2023-09-24 13:30:00')
```

Query Query History

Scratch Pad

1 SELECT id, username, "firstName", surname, "middleName", "phoneNumber", email, password, sex, "familyStatus", sta

2 FROM "DatabaseArchitectureLabWorks"."User";

Data Output Messages Notifications

	username character varying (30)	firstName character varying (20)	surname character varying (20)	middleName character varying (20)	phoneNumber character varying (16)	email character varying (255)	password character varying (40)	sex DatabaseArch
1	user1	John	Doe	[null]	+123456789	user1@example.com	password1	MALE
2	user15	Sergey	Yurpalov	Nicolayevich	+78005553535	random@mail.com	password1	MALE
3	user2	Jane	Smith	Marie	+987654321	user2@example.com	password2	FEMALE
4	user3	William	Johnson	Henry	+111111111	user3@example.com	password3	MALE
5	user4	Emily	Davis	Rose	+222222222	user4@example.com	password4	MALE
6	user5	James	Wilson	Lee	+333333333	user5@example.com	password5	FEMALE
7	user6	Olivia	Brown	Grace	+444444444	user6@example.com	password6	MALE
8	user7	Benjamin	Anderson	Samuel	+555555555	user7@example.com	password7	MALE
9	user8	Sophia	Smith	[null]	+666666666	user8@example.com	password8	MALE
10	user9	Liam	Johnson	Michael	+777777777	user9@example.com	password9	FEMALE
11	user10	Ava	Davis	Rose	+888888888	user10@example.com	password10	MALE
12	user11	Ethan	Wilson	Lee	+999999999	user11@example.com	password11	MALE
13	user12	Isabella	Brown	[null]	+101010101	user12@example.com	password12	MALE
14	user13	Mason	Anderson	Samuel	+111111111	user13@example.com	password13	FEMALE
15	user14	Emma	Smith	Grace	+121212121	user14@example.com	password14	FEMALE



```

1 INSERT INTO "DatabaseArchitectureLabWorks"."GroupMember"(
2     "userId", "groupId", role)
3 VALUES
4     (1, 1, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
5     (3, 1, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
6     (1, 2, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
7     (4, 2, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
8     (16, 3, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
9     (6, 3, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
10    (5, 4, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
11    (8, 4, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
12    (7, 5, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
13    (10, 5, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
14    (9, 6, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
15    (12, 6, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
16    (11, 7, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
17    (14, 7, (SELECT enum_last(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole"))),
18    (13, 8, (SELECT enum_first(NULL::"DatabaseArchitectureLabWorks"."UserGroupRole")));
19

```

	userId [PK] integer	groupId [PK] integer	role "DatabaseArchitectureLabWorks"."UserGroupRole"
1	1	1	MEMBER
2	3	1	ADMIN
3	1	2	MEMBER
4	4	2	ADMIN
5	16	3	MEMBER
6	6	3	MEMBER
7	5	4	MEMBER
8	8	4	ADMIN
9	7	5	ADMIN
10	10	5	MEMBER
11	9	6	ADMIN
12	12	6	MEMBER
13	11	7	ADMIN
14	14	7	MEMBER
15	13	8	ADMIN

# С использованием CSV

Скрипт: \copy <table\_name> (<column1>, <column2>, ...) from

'</path/to/file/filename.csv>' delimiter ';' CSV HEADER;

```
1  userId;content;postDate
2  1>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer eget urna ac sem tincidunt ullamcorper.;2023-09-26 14:00:00
3  3;Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Sed sit amet bibendum dolor.;2023-09-26 14:15:
4  4;Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae;2023-09-26 14:30:00
5  6;Suspendisse potenti. Cras auctor, dolor vel feugiat iaculis, justo nisl hendrerit nunc, ut ultrices libero dolor in ligula.;2023-09-26 14:45
6  8;Nullam at nisl vel ante eleifend vehicula vel vel dui. Duis dapibus feugiat justo vel euismod.;2023-09-26 15:00:00
7  10;Fusce nec libero in nunc finibus vulputate eget at leo. Etiam auctor, ligula non sagittis.;2023-09-26 15:15:00
8  12;Curabitur scelerisque euismod arcu, non condimentum elit dictum at. Vestibulum in metus eu lectus tincidunt efficitur.;2023-09-26 15:30:00
9  14;Aenean ut mauris eu quam iaculis semper. Sed sed erat in sapien blandit tempor sit amet non odio.;2023-09-26 15:45:00
10 16;Sed nec libero ac nunc cursus tincidunt. Proin nec magna in odio dignissim volutpat a sed lorem.;2023-09-26 16:00:00
11 3;Mauris interdum vehicula augue, non pharetra libero cursus vel. Vivamus nec metus eu enim suscipit hendrerit.;2023-09-26 16:15:00
12 5;Duis vel justo eu nisl consectetur gravida. Nulla facilisi. Curabitur hendrerit ex in dapibus.;2023-09-26 16:30:00
13 7;Phasellus ullamcorper, leo vel ultrices tincidunt, leo arcu dictum lorem, ac iaculis turpis libero eu sapien.;2023-09-26 16:45:00
14 9;In hac habitasse platea dictumst. Nunc viverra orci in ante semper, a consequat lorem posuere.;2023-09-26 17:00:00
15 11;Aenean euismod, dui et eleifend egestas, odio velit vulputate erat, sit amet consectetur nisl ante vel dolor.;2023-09-26 17:15:00
16 13;Proin auctor ante in enim tempus, id laoreet velit semper. Curabitur sed orci lacinia, laoreet libero.;2023-09-26 17:30:00
```

	id [PK] integer	userId integer	content text	postDate timestamp without time zone
1	1	1	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer eget urna ac sem tincidunt ullamcorper.	2023-09-26 14:00:00
2	2	3	Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Sed sit amet bib...	2023-09-26 14:15:00
3	3	4	Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae	2023-09-26 14:30:00
4	4	6	Suspendisse potenti. Cras auctor, dolor vel feugiat iaculis, justo nisl hendrerit nunc, ut ultrices libero dolor in lig...	2023-09-26 14:45:00
5	5	8	Nullam at nisl vel ante eleifend vehicula vel vel dui. Duis dapibus feugiat justo vel euismod.	2023-09-26 15:00:00
6	6	10	Fusce nec libero in nunc finibus vulputate eget at leo. Etiam auctor, ligula non sagittis.	2023-09-26 15:15:00
7	7	12	Curabitur scelerisque euismod arcu, non condimentum elit dictum at. Vestibulum in metus eu lectus tincidunt ...	2023-09-26 15:30:00
8	8	14	Aenean ut mauris eu quam iaculis semper. Sed sed erat in sapien blandit tempor sit amet non odio.	2023-09-26 15:45:00
9	9	16	Sed nec libero ac nunc cursus tincidunt. Proin nec magna in odio dignissim volutpat a sed lorem.	2023-09-26 16:00:00
10	10	3	Mauris interdum vehicula augue, non pharetra libero cursus vel. Vivamus nec metus eu enim suscipit hendrerit.	2023-09-26 16:15:00
11	11	5	Duis vel justo eu nisl consectetur gravida. Nulla facilisi. Curabitur hendrerit ex in dapibus.	2023-09-26 16:30:00
12	12	7	Phasellus ullamcorper, leo vel ultrices tincidunt, leo arcu dictum lorem, ac iaculis turpis libero eu sapien.	2023-09-26 16:45:00
13	13	9	In hac habitasse platea dictumst. Nunc viverra orci in ante semper, a consequat lorem posuere.	2023-09-26 17:00:00
14	14	11	Aenean euismod, dui et eleifend egestas, odio velit vulputate erat, sit amet consectetur nisl ante vel dolor.	2023-09-26 17:15:00
15	15	13	Proin auctor ante in enim tempus, id laoreet velit semper. Curabitur sed orci lacinia, laoreet libero.	2023-09-26 17:30:00

```

1 postId;userId;content;commentDate
2 1;1;Great post!;2023-09-26 14:00:00
3 2;3;I completely agree with your points.;2023-09-26 14:15:00
4 3;4;This is very informative.;2023-09-26 14:30:00
5 4;6;Well written!;2023-09-26 14:45:00
6 5;8;I found this really helpful.;2023-09-26 15:00:00
7 8;10;Interesting read.;2023-09-26 15:15:00
8 7;12;Thanks for sharing this!;2023-09-26 15:30:00
9 8;14;I learned something new from this.;2023-09-26 15:45:00
10 9;16;Can you provide more details on this topic?;2023-09-26 16:00:00
11 10;3;I have a question about point 2.;2023-09-26 16:15:00
12 11;5;This is a great resource!;2023-09-26 16:30:00
13 13;7;I appreciate your insights.;2023-09-26 16:45:00
14 13;9;Could you clarify point 4?;2023-09-26 17:00:00
15 14;11;I enjoyed reading this.;2023-09-26 17:15:00
16 15;13;Looking forward to your next post.;2023-09-26 17:30:00

```

	id [PK] integer	postId integer	userId integer	content text	commentDate timestamp without time zone
1	1	1	1	Great post!	2023-09-26 14:00:00
2	2	2	3	I completely agree with your points.	2023-09-26 14:15:00
3	3	3	4	This is very informative.	2023-09-26 14:30:00
4	4	4	6	Well written!	2023-09-26 14:45:00
5	5	5	8	I found this really helpful.	2023-09-26 15:00:00
6	6	8	10	Interesting read.	2023-09-26 15:15:00
7	7	7	12	Thanks for sharing this!	2023-09-26 15:30:00
8	8	8	14	I learned something new from this.	2023-09-26 15:45:00
9	9	9	16	Can you provide more details on this topic?	2023-09-26 16:00:00
10	10	10	3	I have a question about point 2.	2023-09-26 16:15:00
11	11	11	5	This is a great resource!	2023-09-26 16:30:00
12	12	13	7	I appreciate your insights.	2023-09-26 16:45:00
13	13	13	9	Could you clarify point 4?	2023-09-26 17:00:00
14	14	14	11	I enjoyed reading this.	2023-09-26 17:15:00
15	15	15	13	Looking forward to your next post.	2023-09-26 17:30:00

```

1 postId;userId;likeDate
2 1;1;2023-09-26 14:00:00
3 2;3;2023-09-26 14:15:00
4 3;4;2023-09-26 14:30:00
5 4;6;2023-09-26 14:45:00
6 5;8;2023-09-26 15:00:00
7 8;10;2023-09-26 15:15:00
8 7;12;2023-09-26 15:30:00
9 8;14;2023-09-26 15:45:00
10 9;16;2023-09-26 16:00:00
11 10;3;2023-09-26 16:15:00
12 11;5;2023-09-26 16:30:00
13 13;7;2023-09-26 16:45:00
14 13;9;2023-09-26 17:00:00
15 14;11;2023-09-26 17:15:00
16 15;13;2023-09-26 17:30:00

```

	id [PK] integer	postId integer	userId integer	likeDate timestamp without time zone
1	1	1	1	2023-09-26 14:00:00
2	2	2	3	2023-09-26 14:15:00
3	3	3	4	2023-09-26 14:30:00
4	4	4	6	2023-09-26 14:45:00
5	5	5	8	2023-09-26 15:00:00
6	6	8	10	2023-09-26 15:15:00
7	7	7	12	2023-09-26 15:30:00
8	8	8	14	2023-09-26 15:45:00
9	9	9	16	2023-09-26 16:00:00
10	10	10	3	2023-09-26 16:15:00
11	11	11	5	2023-09-26 16:30:00
12	12	13	7	2023-09-26 16:45:00
13	13	13	9	2023-09-26 17:00:00
14	14	14	11	2023-09-26 17:15:00
15	15	15	13	2023-09-26 17:30:00

```
1  userId;friendId;friendshipDate
2  1;3;2023-09-26 14:00:00
3  3;1;2023-09-26 14:15:00
4  1;4;2023-09-26 14:30:00
5  4;1;2023-09-26 14:45:00
6  1;6;2023-09-26 15:00:00
7  6;1;2023-09-26 15:15:00
8  1;8;2023-09-26 15:30:00
9  8;1;2023-09-26 15:45:00
10 1;10;2023-09-26 16:00:00
11 10;1;2023-09-26 16:15:00
12 1;12;2023-09-26 16:30:00
13 12;1;2023-09-26 16:45:00
14 1;14;2023-09-26 17:00:00
15 14;1;2023-09-26 17:15:00
16 1;16;2023-09-26 17:30:00
```

Data Output

Messages

Notifications

	<div>userId</div> <div>[PK] integer</div>	<div>friendId</div> <div>[PK] integer</div>	<div>friendshipDate</div> <div>timestamp without time zone</div>
1	1	3	2023-09-26 14:00:00
2	3	1	2023-09-26 14:15:00
3	1	4	2023-09-26 14:30:00
4	4	1	2023-09-26 14:45:00
5	1	6	2023-09-26 15:00:00
6	6	1	2023-09-26 15:15:00
7	1	8	2023-09-26 15:30:00
8	8	1	2023-09-26 15:45:00
9	1	10	2023-09-26 16:00:00
10	10	1	2023-09-26 16:15:00
11	1	12	2023-09-26 16:30:00
12	12	1	2023-09-26 16:45:00
13	1	14	2023-09-26 17:00:00
14	14	1	2023-09-26 17:15:00
15	1	16	2023-09-26 17:30:00

```
1 groupname;name;creationDate
2 Group1;John's Friends;2023-09-26 14:00:00
3 Group2;Jane's Family;2023-09-26 14:15:00
4 Group3;Team Project;2023-09-26 14:30:00
5 Group4;Book Club;2023-09-26 14:45:00
6 Group5;Travel Enthusiasts;2023-09-26 15:00:00
7 Group6;Tech Enthusiasts;2023-09-26 15:15:00
8 Group7;Fitness Buddies;2023-09-26 15:30:00
9 Group8;Cooking Club;2023-09-26 15:45:00
10 Group9;Movie Lovers;2023-09-26 16:00:00
11 Group10;Music Fans;2023-09-26 16:15:00
12 Group11;Outdoor Adventures;2023-09-26 16:30:00
13 Group12;Gaming Community;2023-09-26 16:45:00
14 Group13;Art Enthusiasts;2023-09-26 17:00:00
15 Group14;Photography Club;2023-09-26 17:15:00
16 Group15;Pet Lovers;2023-09-26 17:30:00
```

	id [PK] integer	groupname character varying (30)	name character varying (40)	creationDate timestamp without time zone
1	1	Group1	John's Friends	2023-09-26 14:00:00
2	2	Group2	Jane's Family	2023-09-26 14:15:00
3	3	Group3	Team Project	2023-09-26 14:30:00
4	4	Group4	Book Club	2023-09-26 14:45:00
5	5	Group5	Travel Enthusiasts	2023-09-26 15:00:00
6	6	Group6	Tech Enthusiasts	2023-09-26 15:15:00
7	7	Group7	Fitness Buddies	2023-09-26 15:30:00
8	8	Group8	Cooking Club	2023-09-26 15:45:00
9	9	Group9	Movie Lovers	2023-09-26 16:00:00
10	10	Group10	Music Fans	2023-09-26 16:15:00
11	11	Group11	Outdoor Adventures	2023-09-26 16:30:00
12	12	Group12	Gaming Community	2023-09-26 16:45:00
13	13	Group13	Art Enthusiasts	2023-09-26 17:00:00
14	14	Group14	Photography Club	2023-09-26 17:15:00
15	15	Group15	Pet Lovers	2023-09-26 17:30:00

1	name
2	Family Chat
3	Project Team
4	Weekend Plans
5	Tech Talk
6	Book Recommendations
7	Travel Stories
8	Fitness Goals
9	Recipe Exchange
10	Movie Night
11	Music Discussions
12	Hiking Adventures
13	Gaming Community
14	Art Lovers
15	Photography Enthusiasts
16	Pet Owners

	id [PK] integer 	name character varying (255) 
1	1	Family Chat
2	2	Project Team
3	3	Weekend Plans
4	4	Tech Talk
5	5	Book Recommendations
6	6	Travel Stories
7	7	Fitness Goals
8	8	Recipe Exchange
9	9	Movie Night
10	10	Music Discussions
11	11	Hiking Adventures
12	12	Gaming Community
13	13	Art Lovers
14	14	Photography Enthusiasts
15	15	Pet Owners



```

1 conversationId;content;sendDate
2 1;Hello, how's everyone doing?;2023-09-26 14:00:00
3 3;I just wanted to share some exciting news!;2023-09-26 14:15:00
4 3;Has anyone tried the new restaurant downtown?;2023-09-26 14:30:00
5 4;Great job on completing the project ahead of schedule!;2023-09-26 14:45:00
6 5;I found this interesting article about AI.;2023-09-26 15:00:00
7 8;Just got back from an amazing trip to Bali.;2023-09-26 15:15:00
8 7;Let's meet at the gym tomorrow morning.;2023-09-26 15:30:00
9 8;Here's my secret family recipe for lasagna.;2023-09-26 15:45:00
10 9;Any movie recommendations for this weekend?;2023-09-26 16:00:00
11 12;I'm really into jazz music lately.;2023-09-26 16:15:00
12 11;Join us for a hike this Saturday!;2023-09-26 16:30:00
13 12;Who's up for some multiplayer gaming tonight?;2023-09-26 16:45:00
14 15;I'm working on a new art project. Stay tuned!;2023-09-26 17:00:00
15 14;Let's plan a photography outing next week.;2023-09-26 17:15:00
16 15;My dog just learned a new trick!;2023-09-26 17:30:00

```

	id [PK] integer	conversationId integer	content text	sendDate timestamp without time zone
1	1	1	Hello, how's everyone doing?	2023-09-26 14:00:00
2	2	3	I just wanted to share some exciting news!	2023-09-26 14:15:00
3	3	3	Has anyone tried the new restaurant downtown?	2023-09-26 14:30:00
4	4	4	Great job on completing the project ahead of schedul...	2023-09-26 14:45:00
5	5	5	I found this interesting article about AI.	2023-09-26 15:00:00
6	6	8	Just got back from an amazing trip to Bali.	2023-09-26 15:15:00
7	7	7	Let's meet at the gym tomorrow morning.	2023-09-26 15:30:00
8	8	8	Here's my secret family recipe for lasagna.	2023-09-26 15:45:00
9	9	9	Any movie recommendations for this weekend?	2023-09-26 16:00:00
10	10	12	I'm really into jazz music lately.	2023-09-26 16:15:00
11	11	11	Join us for a hike this Saturday!	2023-09-26 16:30:00
12	12	12	Who's up for some multiplayer gaming tonight?	2023-09-26 16:45:00
13	13	15	I'm working on a new art project. Stay tuned!	2023-09-26 17:00:00
14	14	14	Let's plan a photography outing next week.	2023-09-26 17:15:00
15	15	15	My dog just learned a new trick!	2023-09-26 17:30:00



```

1  userId;conversationId
2  1;5
3  3;6
4  4;4
5  5;5
6  6;1
7  7;1
8  8;1
9  9;12
10 10;15
11 11;15
12 12;7
13 13;8
14 14;9
15 15;3
16 16;2

```

	userId [PK] integer	conversationId [PK] integer
1	1	5
2	3	6
3	4	4
4	5	5
5	6	1
6	7	1
7	8	1
8	9	12
9	10	15
10	11	15
11	12	7
12	13	8
13	14	9
14	15	3
15	16	2