Projet base de données

Par PIRABAKARAN Thanushan, SANTINI Maya, TALATA Saadi

TD4

Décembre 2022

Sommaire

I. Cahier des charges

La base de données choisie pour ce projet est celle de l'application de musique **Spotify**, très simplifiée : Un auditeur peut lancer une session d'écoute, qui lancera une playlist contenant des chansons de divers albums et artistes.

Spotify est très utilisée dans le monde, par toute nationalité et à tout âge.

L'auditeur est le client de l'application. Il est caractérisé par un pseudo unique, un mail, un mot de passe, un genre, un pays, une date de naissance, une date de création de compte, et un abonnement.

Il va lancer une session qui permettra d'écouter une playlist.

L'auditeur peut se connecter sur différents appareils: 'téléphone', 'ordinateur', 'tablette', ou 'appareil divers'. Sa dernière connexion sera également enregistrée.

La session est la représentation des données lors de la sélection de la musique via l'interface pour l'auditeur.

Elle permet à un auditeur d'écouter une playlist contenant des chansons, qu'il stockera en mémoire juste pendant la session.

Une session d'écoute est caractérisée par un SessionID, la dernière connexion, l'appareil connecté et un mode : aléatoire ou normal.

Une playlist est une liste contenant des chansons. Une playlist est par défaut publique mais elle peut aussi être privée si précisé.

Une playlist possède un PlaylistID, un nom et une confidentialité.

Un artiste peut produire des chansons, qui sont des singles ou qui composent des albums. Une chanson peut se trouver dans plusieurs albums différents, et un album possède plusieurs chansons. Une chanson peut-être un single, c'est-à-dire une chanson produite et promue seule, sans album.

Une chanson peut être en featuring. Ce terme signifie la participation d'un ou plusieurs artistes sur le titre de quelqu'un d'autre. On retrouvera l'artiste principal et les collaborateurs dans le rôle de l'artiste.

Une chanson est caractérisée par un ChansonID, un titre, un genre musical, une durée, et une date.
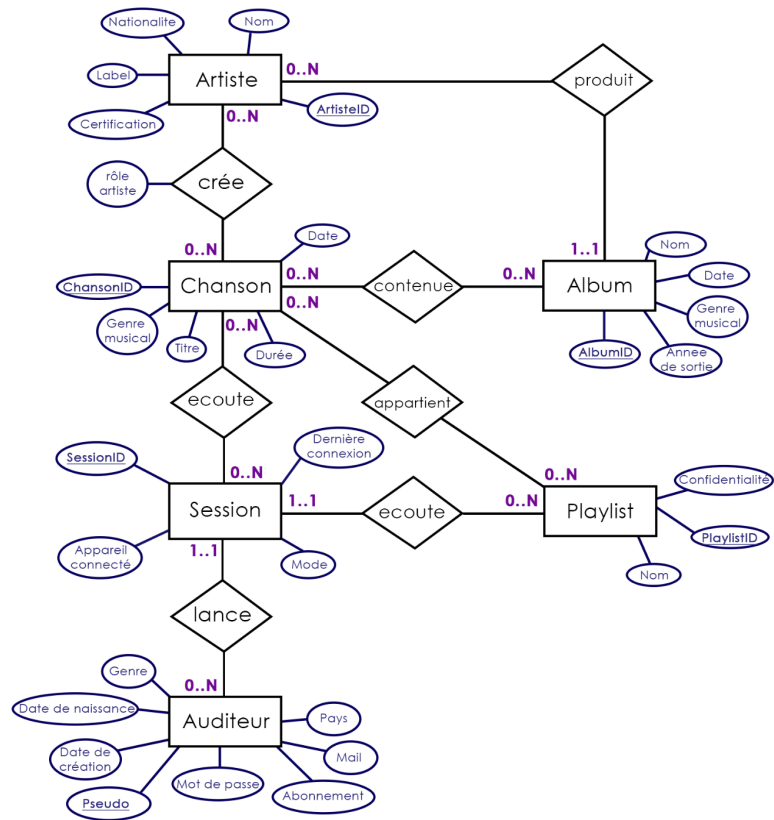
Un album est un ensemble de chansons produit par un artiste.

Un album a un AlbumID, un nom, un genre musical, et une date.

L'artiste va produire des œuvres qu'il mettra disponible sur Spotify, présentant sa discographie, c'est-à-dire le répertoire des ses œuvres. Un label, qui est une maison de disques, peut s'associer à un artiste pour l'assister.

Il possède un ArtisteID, un nom, une ville, une nationalité, une certification, ou non, et un label.

II. Modélisation du problème Entité/Association

III. Contraintes d'intégrité

1) Chaque ArtisteID, AlbumID, ChansonID, PlaylistID, SessionID portent des numéros égaux à la précédente + 1. La première valeur est égale à 1.

```
CREATE SEQUENCE artiste_seq
    START WITH 1
    INCREMENT BY 1 ;
CREATE SEQUENCE album_seq
    START WITH 1
    INCREMENT BY 1 ;
CREATE SEQUENCE chanson_seq
    START WITH 1
    INCREMENT BY 1 ;
CREATE SEQUENCE playlist_seq
    START WITH 1
    INCREMENT BY 1 ;
CREATE SEQUENCE session_seq
    START WITH 1
    INCREMENT BY 1 ;
CREATE SEQUENCE cree_seq
    START WITH 1
    INCREMENT BY 1 ;
```

2) Les appareils connectés doivent faire partie de cette liste : Ordinateur, Téléphone, Tablette, Appareil divers.

```
ALTER TABLE Session_ecoute ADD CONSTRAINT contrainte_appareil
CHECK(appareil_connecte in ('ordinateur', 'telephone', 'tablette', 'appareil
divers'));
```

3) Le genre d'un Auditeur prend uniquement les valeurs suivantes: H ou F.

```
ALTER TABLE Auditeur ADD CONSTRAINT c_genre CHECK(genre in ('H', 'F'));
```

4) Chaque pseudo et mail d'un auditeur doit être unique.

```
CREATE OR REPLACE TRIGGER contrainte_pseudo_auditeur
BEFORE INSERT ON Auditeur for each row
    DECLARE
        x number;
    BEGIN
        SELECT count(a.pseudo) INTO x
        FROM Auditeur a
        WHERE a.pseudo = :new.pseudo;
        IF nvl(x,0)=1 THEN
            raise_application_error(-20002,'Pseudo deja existant.');
        END IF;
    ENF;
/
```

```
CREATE OR REPLACE TRIGGER contrainte_mail_auditeur
BEFORE INSERT ON Auditeur for each row
    DECLARE
        x number;
    BEGIN
        SELECT count(a.mail) INTO x
        FROM Auditeur a
        WHERE a.mail = :new.mail;
        IF nvl(x,0)=1 THEN
            raise_application_error(-20002,'Mail deja existant.');
        END IF;
    END;
/
```

5) Le mot de passe d'un auditeur doit contenir au minimum 5 caractères.

```
CREATE OR REPLACE TRIGGER length_password
BEFORE INSERT ON Auditeur for each row
    BEGIN
        IF (length(:new.v_password < 5)) THEN
            raise_application_error(-20003,'Le password n'est pas assez
long!');
        END IF;
    END;
/
```

6) L'abonnement d'un auditeur doit faire partie de cette liste: Premium, Duo, Famille, Etudiant, Gratuit.

```
ALTER TABLE Auditeur ADD CONSTRAINT c_abonnement CHECK(abonnement in
('Personnel', 'Duo', 'Famille', 'Etudiant', 'Gratuit'));
```

7) Chaque nom d'artiste doit être unique.

```
CREATE OR REPLACE TRIGGER contrainte_nom
BEFORE INSERT ON Artiste for each row
    DECLARE
        x number;
    BEGIN
        SELECT count(a.nom) INTO x
        FROM Artiste a
        WHERE a.nom = :new.nom;
        IF nvl(x,0)=1 THEN
            raise_application_error(-20002,'Nom deja existant.');
        END IF;
    END;
/
```

8) Le genre musical d'un album et d'une chanson doit faire parti de la liste suivante: hip-hop, pop, variété française, latino, électro, rock, rnb, k-pop, jazz, soul, indé, metal

```
ALTER TABLE ALbum ADD CONSTRAINT c_genre_musical CHECK(genre_musical in
('Hip-Hop', 'Pop', 'Variete francaise', 'Latino', 'Electro', 'Rock', 'RnB',
'K-pop', 'Jazz', 'Soul', 'Inde', 'Metal'));
```

9) La confidentialité d'une playlist prend uniquement les valeurs suivantes : Privé ou Publique.

```
ALTER TABLE Playlist ADD CONSTRAINT contrainte_confidentialite
CHECK(confidentialite in ('prive', 'publique'));
```

10) Il est impossible d'écouter une chanson qui n'est pas dans une playlist.

```
CREATE OR REPLACE TRIGGER lecture_chanson
BEFORE INSERT ON Session_ecoute for each row
DECLARE
    chanson_restante ecoute.chansonid%type;
BEGIN
    SELECT e.chansonid INTO chanson_restante
    FROM Ecoute e, Session_ecoute s, Appartient a
    WHERE e.sessionid = s.sessionid
        and e.chansonid = a.chansonid
        and s.playlistid = a.playlistid
    MINUS
    SELECT a.chansonid
    FROM Ecoute e, Session_ecoute s, Appartient a
    WHERE e.sessionid = s.sessionid
        AND e.chansonid = a.chansonid
        AND s.playlistid = a.playlistid

    SELECT count(*) AS 'compteur'
    FROM chanson_restante
    IF (compteur > 0) THEN
        raise_application_error(-20002,'Une chanson n'est pas dans une
playlist!');
    END IF;
END;
/
```

11) Si l'attribut du label est non nul, l'artiste affilié doit avoir une certification.

```
ALTER TABLE Artiste ADD CONSTRAINT c_label CHECK(v_label = 0 and
certification is not null);

CREATE TRIGGER label_artiste
BEFORE INSERT ON Artiste for each row
BEGIN
    IF(:new.certification = 1 and :new.v_label is null){
```

```
        RAISE_APPLICATION_ERROR (-20003, 'erreur: certification doit être
renseigner');
    };
      END IF;
END;
/
```

12) La date de création du compte de l'utilisateur lançant une session d'écoute doit être inférieure à la date de la session d'écoute.

```
CREATE OR REPLACE TRIGGER contrainte_auditeur_session
BEFORE INSERT ON Session_ecoute for each row
    DECLARE
        session_date date;
        auditeur_date date;
    BEGIN
        SELECT a.date_de_creation INTO auditeur_date
        FROM Auditeur a
        WHERE a.pseudo = :new.utilisateur;
        IF auditeur_date > :new.derniere_connexion THEN
            raise_application_error(-20002,'Le compte a ete cree apres la
session d ecoute.');
        END IF;
    END;
/
```

13) La date de sortie de la chanson écoutée doit être inférieure à la date de la session d'écoute.

```
CREATE OR REPLACE TRIGGER contrainte_date_session
BEFORE INSERT ON Ecoute for each row
    DECLARE
        session_date date;
        chanson_annee date;
    BEGIN
        SELECT s.derniere_connexion INTO session_date
        FROM Session_ecoute s
        WHERE s.sessionid = :new.sessionid;
        SELECT To_date(c.annee - 1, 'YYYY') INTO chanson_annee
        FROM chanson c
        WHERE c.chansonid = :new.chansonid;
        IF chanson_annee > session_date THEN
            raise_application_error(-20002,'La chanson est sortie apres la
creation de la session d ecoute.');
        END IF;
    END;
/
```

IV.   Vers le relationnel

Transformons notre modèle E/A en un schéma relationnel.
Les attributs soulignés en rose représentent les clés primaires, et ceux en bleu les clés étrangères.

Auditeur (Pseudo, Mail, Mot de passe, Genre, Pays, Date de naissance, Date de création, Abonnement)

Artiste (ArtisteID, Nom, Nationalite, Certification, Label)

Album (AlbumID, Nom, Genre musical, Année de sortie, ArtisteID)
   Album (ArtisteID) est clé étrangère de **Artiste** (ArtisteID)

Chanson (ChansonID, Titre, Genre musical, Durée, Date, ArtisteID)
   Chanson (ArtisteID) est clé étrangère de **Artiste** (ArtisteID)

Playlist (PlaylistID, Nom, Confidentialité)

Session (SessionID, Mode, Dernière connexion, Appareil connecté, Utilisateur, ChansonID, PlaylistID)
   Session (Utilisateur) est clé étrangère de **Auditeur** (Pseudo)
   Session (ChansonID) est clé étrangère de **Chanson** (ChansonID)
   Session (PlaylistID) est clé étrangère de **Playlist** (PlaylistID)

Contenue (ChansonID, AlbumID)
   Contenue (AlbumID) est clé étrangère de **Album** (AlbumID)
   Contenue (ChansonID) est clé étrangère de **Chanson** (ChansonID)

Ecoute (SessionID, ChansonID)
   Ecoute(SessionID) est clé étrangère de **Session** (SessionID)
   Ecoute(ChansonID) est clé étrangère de **Chanson** (ChansonID)

Appartient(PlaylistID, ChansonID)
   Appartient(PlaylistID) est clé étrangère de **Playlist** (PlaylistID)
   Appartient(ChansonID) est clé étrangère de **Chanson** (ChansonID)

Crée (Rôle artiste, ChansonID, ArtisteID)
   Crée (ChansonID) est clé étrangère de **Chanson** (ChansonID)
   Crée (ArtisteID) est clé étrangère de **Artiste** (ArtisteID)

Création des tables

```sql
CREATE TABLE Auditeur (
      pseudo varchar(20) NOT NULL,
      mail varchar(25) NOT NULL,
      password varchar(25) NOT NULL,
      genre varchar(1),
      pays varchar(25),
      date_de_naissance date NOT NULL,
      date_de_creation date NOT NULL,
      abonnement varchar(10) NOT NULL,
      PRIMARY KEY(pseudo)
);

CREATE TABLE Artiste(
    artisteid number(5) NOT NULL,
    nom varchar(20) NOT NULL,
    nationalite varchar(20) NOT NULL,
    certification number(1) NOT NULL,
    v_label varchar(50),
    PRIMARY KEY (artisteid)
);

CREATE TABLE Album(
    albumid number(4) NOT NULL,
    nom varchar(40) NOT NULL,
    genre_musical varchar(15) NOT NULL,
    annee number(4) NOT NULL,
    artisteid number(5) NOT NULL,
    PRIMARY KEY (albumid),
    FOREIGN KEY (artisteid) REFERENCES Artiste (artisteid) ON DELETE CASCADE
);

CREATE TABLE Chanson(
    chansonid number(4) NOT NULL,
    titre varchar(40) NOT NULL,
    genre_musical varchar(15) NOT NULL,
    duree number(3,2) NOT NULL,
    annee number(4) NOT NULL,
    artisteid number(5) NOT NULL,
    PRIMARY KEY (chansonid),
    FOREIGN KEY (artisteid) REFERENCES Artiste (artisteid) ON DELETE CASCADE
);

CREATE TABLE Playlist(
    playlistid number(4) NOT NULL,
    nom varchar(20) NOT NULL,
    confidentialite varchar(15) NOT NULL,
    PRIMARY KEY (playlistid)
);
```

```sql
CREATE TABLE Session_ecoute(
    sessionid number(4) NOT NULL,
    v_mode varchar(10),
    derniere_connexion date,
    appareil_connecte varchar(15),
    utilisateur varchar(20) NOT NULL,
    playlistid number(4) NOT NULL,
    PRIMARY KEY (sessionid),
    FOREIGN KEY (utilisateur) REFERENCES Auditeur(pseudo) ON DELETE CASCADE,
    FOREIGN KEY (playlistid) REFERENCES Playlist(playlistid) ON DELETE
CASCADE
);

CREATE TABLE Contenue (
    chansonid number(4) NOT NULL,
    albumid number(4) NOT NULL,
    FOREIGN KEY (chansonid) REFERENCES Chanson(chansonid) ON DELETE CASCADE,
    FOREIGN KEY (albumid) REFERENCES Album(albumid) ON DELETE CASCADE
);

CREATE TABLE Ecoute (
    sessionid number(4) NOT NULL,
    chansonid number(4) NOT NULL,
    FOREIGN KEY (sessionid) REFERENCES Session_ecoute(sessionid) ON DELETE
CASCADE,
    FOREIGN KEY (chansonid) REFERENCES Chanson(chansonid) ON DELETE CASCADE
);

CREATE TABLE Cree (
    id number(4) NOT NULL,
    role_artiste varchar(20) NOT NULL,
    chansonid number(4) NOT NULL,
    artisteid number(4) NOT NULL,
    FOREIGN KEY (chansonid) REFERENCES Chanson(chansonid) ON DELETE
CASCADE,
    FOREIGN KEY (artisteid) REFERENCES Artiste (artisteid) ON DELETE
CASCADE
);

CREATE TABLE Appartient (
    playlistid number(4) not null,
    chansonid number(4) not null,
    FOREIGN KEY (playlistid) REFERENCES Playlist(playlistid) ON DELETE
CASCADE,
    FOREIGN KEY (chansonid) REFERENCES Chanson(chansonid) ON DELETE CASCADE
);
```

V.   Questions pertinentes

Contrôles d'accès

1) Un auditeur a le droit en lecture de toutes les tables sauf celle d'autres auditeurs, et tous les droits sur certaines caractéristiques de sa table.

```
CREATE USER auditeur_user IDENTIFIED BY audi;
GRANT select ON etudiant.artiste TO auditeur_user;
GRANT select ON etudiant.album TO auditeur_user;
GRANT select ON etudiant.chanson TO auditeur_user;
GRANT select ON etudiant.playlist TO auditeur_user;
GRANT select ON etudiant.session_ecoute TO auditeur_user;
GRANT select ON etudiant.appartient TO auditeur_user;
GRANT select ON etudiant.ecoute TO auditeur_user;
GRANT select ON etudiant.Contenue TO auditeur_user;
GRANT select ON etudiant.cree TO auditeur_user;
CREATE VIEW auditeur_data (pseudo, mail, password, genre, pays,
date_de_naissance, date_de_creation, abonnement) AS
(SELECT pseudo, mail, password, genre, pays, date_de_naissance,
date_de_creation, abonnement
FROM etudiant.auditeur a
WHERE a.pseudo = USER
);
GRANT select ON auditeur_data TO auditeur_user;
```

2) Un artiste a le droit d'accéder à la table de son album, ses chansons, sa propre table et en lecture au titre de la playlist où au moins l'une de ses chansons figure.

```
CREATE USER artiste IDENTIFIED by pass_artiste;

CREATE VIEW artiste_album (albumid, nom, genre_musical, annee, artisteid) AS
(SELECT AL.albumid, AL.nom, AL.genre_musical, AL.annee, A.artisteid
FROM Album AL, Artiste A
WHERE AL.artisteid = A.artisteid
    AND A.nom = USER);
GRANT ALL privileges ON artiste_album TO artiste;

CREATE VIEW artiste_chanson (chansonid, titre, genre_musical, duree, annee,
artisteid) AS
(SELECT C.chansonid, C.titre, C.genre_musical, C.duree, C.annee, A.artisteid
FROM Chanson C, Artiste A
WHERE A.artisteid = C.artisteid
    AND A.nom = USER);
GRANT ALL privileges ON artiste_chanson TO artiste;

CREATE VIEW artiste_data (artisteid, nom, nationalite, certification,
v_label) AS
```

```
(SELECT artisteid, nom, nationalite, certification, v_label
FROM Artiste
WHERE nom = USER);
GRANT ALL privileges ON artiste_data TO artiste;


CREATE VIEW nom_playlist (nom_playlist, nom_chanson) AS
(SELECT P.nom, C.titre
FROM Playlist P, Chanson C, Appartient A
WHERE P.playlistid = A.playlistid
    AND C.chansonid = A.chansonid);
GRANT ALL privileges ON nom_playlist TO artiste;
```

3) Un admin a accès à toutes les tables.

```
CREATE USER admin IDENTIFIED BY admin;
GRANT All privileges TO admin;
```

Vues

1) Faire une vue avec les chansons les plus écoutées accessible par tous.

```
CREATE VIEW chansons_populaires (titre) as (
     SELECT C.titre
     FROM Chanson C, Ecoute E
     WHERE C.chansonid = E.chansonid
     GROUP BY C.titre
     HAVING Count(E.chansonid) > 2);
```

2) Faire une vue contenant le top des sorties récentes de 2022 selon le nombre d'écoutes accessible par tous.

```
CREATE VIEW top_sorties_2022 (titre, nb_temps_ecoute) as (
    SELECT C.titre, sum(C.duree) as nb_temps_ecoute
    FROM ecoute E, chanson C
    WHERE E.chansonid = C.chansonid AND C.annee = '2022'
    GROUP BY C.titre);
```

3) Faire une vue confidentialité, contenant les identifiants et les mails, accessible seulement par un administrateur.

```
CREATE VIEW confidentialite (pseudo, mail) as
(SELECT pseudo, mail
FROM auditeur);
GRANT select ON confidentialite TO admin;
```
4) Faire une vue qui cache les mots de passe.

```
CREATE VIEW auditeur_no_password (pseudo, mail, genre, pays,
date_de_naissance, date_de_creation, abonnement) as
(SELECT pseudo, mail, genre, pays, date_de_naissance, date_de_creation,
abonnement
FROM auditeur);
```

5) Faire 3 vues pour regrouper les utilisateurs par tranche d'âge : jeune, adulte, senior.

```
CREATE VIEW jeune (pseudo,date_de_naissance) as (
     SELECT pseudo, date_de_naissance
     FROM Auditeur
     WHERE date_de_naissance > '01-Jan-1998');

CREATE VIEW adulte (pseudo,date_de_naissance) as (
     SELECT pseudo, date_de_naissance
     FROM Auditeur
     WHERE date_de_naissance < '01-Jan-1998' AND date_de_naissance >
'01-Jan-1973');
```

```sql
CREATE VIEW senior (pseudo,date_de_naissance) as (
    SELECT pseudo, date_de_naissance
    FROM Auditeur
    WHERE date_de_naissance < '01-Jan-1973');
```

Requêtes

1) Le top 10 chansons sorties en 2022 les plus écoutées.

```
SELECT *
FROM (
      SELECT DISTINCT C.titre
      FROM Chanson C, Ecoute E
      WHERE C.annee = 2022 AND C.chansonid = E.chansonid
      ORDER BY (
              SELECT COUNT(E.chansonid)
              FROM Ecoute E
              )
      )
WHERE rownum <= 10;
```

2) Le classement des artistes les plus écoutés par les jeunes (<25 ans).

```
SELECT (DISTINCT Ar.nom)
FROM Artiste Ar, Auditeur Au, Cree C, Session_ecoute S, Ecoute E
WHERE Au.date_de_naissance > '01-Jan-1998'
      AND Au.pseudo = S.utilisateur
      AND S.sessionid = E.sessionid
      AND E.chansonid = C.chansonid
      AND C.artisteid = Ar.artisteid
ORDER BY (
        SELECT COUNT(C.artisteid)
        FROM Cree C
       );
```

3) Le genre musical le plus écouté selon la tranche d'âge.

```
        SELECT *
    FROM (
        SELECT DISTINCT C.genre_musical
        FROM Chanson C, Session_ecoute S, Ecoute E, Jeune J
        WHERE J.pseudo = S.utilisateur
            AND S.sessionid = E.sessionid
            AND E.chansonid = C.chansonid
        ORDER BY (
            SELECT COUNT(E.chansonid)
            FROM Ecoute E
            )ASC
        )
    WHERE rownum = 1
UNION
    SELECT *
```

```
        FROM (
                SELECT C.genre_musical
                FROM Chanson C, Session_ecoute S, Ecoute E, Adulte A
                WHERE A.pseudo = S.utilisateur
                        AND S.sessionid = E.sessionid
                        AND E.chansonid = C.chansonid
                ORDER BY (
                    SELECT COUNT(E.chansonid)
                        FROM Ecoute E
                        )ASC
                )
        WHERE rownum = 1
UNION
        SELECT *
        FROM (
                SELECT C.genre_musical
                FROM Chanson C, Session_ecoute S, Ecoute E, Senior Se
                WHERE Se.pseudo= S.utilisateur
                        AND S.sessionid = E.sessionid
                        AND E.chansonid = C.chansonid
                ORDER BY (
                    SELECT COUNT(E.chansonid)
                        FROM Ecoute E
                        )ASC
                )
        WHERE rownum = 1;
```

4) Le pourcentage des genres musicaux constituant le top 10.

```
SELECT C.genre_musical, COUNT(C.chansonid)/10 * 100 as pourcentage_genre
FROM (SELECT *
        FROM(SELECT C.chansonid, COUNT(C.chansonid) as compteur
          FROM Session_ecoute S, ecoute E ,chanson C
          WHERE S.sessionid = E.sessionid AND E.chansonid = C.chansonid
          GROUP BY C.chansonid
          ORDER BY 2 desc)
     WHERE rownum <= 10) t, chanson C
     WHERE t.chansonid = C.chansonid
     GROUP BY C.genre_musical
     ORDER BY 2 desc
;
```

5) Afficher la discographie de l'artiste 'Tsew The Kid'.

```
        SELECT distinct Al.nom, Ar.nom
                FROM Album Al, Chanson Ch, Artiste Ar, Cree Cr, Contenue Co
                WHERE Ar.nom = 'Tsew The Kid'
                        AND Ch.chansonid = Cr.chansonid
                        AND Ar.artisteid = Cr.artisteid
                        AND Al.albumid = Co.albumid
                        AND Ch.chansonid = Co.chansonid
                ORDER BY Al.nom
```

```
UNION
        SELECT Ch.titre, Ar.nom
        FROM Chanson Ch, Artiste Ar, Cree Cr
        WHERE Ar.nom = 'Tsew The Kid'
                AND Ch.chansonid = Cr.chansonid
                AND Ar.artisteid = Cr.artisteid;
```

6) Afficher tous les artistes en featuring sur les albums.

```
SELECT Ar.nom, Cr.role_artiste, Al.nom
FROM Artiste Ar, Album Al, Chanson Ch, Contenue Co, Cree Cr
WHERE Cr.role_artiste = 'secondaire'
        AND Ar.artisteid = Cr.artisteid
        AND Ch.chansonid = Cr.chansonid
        AND Ch.chansonid = Co.chansonid
        AND Al.albumid = Co.albumid;
```

7) Afficher les albums ayant la plus longue durée de chaque artiste.

```
SELECT *
FROM (SELECT album, SUM(duree) as duree_tot
     FROM(select A.nom as artiste, Al.nom as album, Al.albumid,
Co.albumid, C.duree as duree
        FROM Artiste A, Album Al, Chanson C, Contenue Co
        WHERE A.artisteid = Al.artisteid
                and A.artisteid = C.artisteid
                and Co.chansonid = C.chansonid
                order by Co.albumid)
     GROUP BY album);
```

8) Afficher l'historique (= toutes les sessions) pour l'auditeur "Maya".

```
SELECT C.titre as chansons, S.derniere_connexion as date_ecoute
FROM Ecoute E, Session_ecoute S, Chanson C
WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND E.chansonid =
C.chansonid
ORDER BY 2 desc;
```

9) Afficher l'artiste le plus écouté des dernières 24h.

```
SELECT A.nom , temps_ecoute
FROM Artiste A,(
    SELECT C.artisteid, SUM(c.duree) as temps_ecoute
    FROM Ecoute E ,chanson C
    WHERE E.chansonid = c.chansonid
    GROUP BY C.artisteid
    ORDER BY 2 desc
)
WHERE rownum = 1;
```

10) Donner la liste des auditeurs qui ont lancé plus de 2 sessions durant la journée du 18 juillet 2022.

```
SELECT utilisateur, nb_session
FROM
    (SELECT A.pseudo as utilisateur, COUNT(S.sessionid) as nb_session
    FROM Session_ecoute S, Auditeur A
    WHERE S.utilisateur = A.pseudo AND S.derniere_connexion = '18-Jul-2022'
    GROUP BY A.pseudo
    ORDER BY 2 desc)
WHERE nb_session >= 2
;
```

11) Lister les 10 utilisateurs qui ont le plus utilisé la plateforme (= le plus de sessions d'écoutes).

```
SELECT *
FROM(SELECT utilisateur, COUNT(sessionid) as nb_sessions
    FROM Session_ecoute
    GROUP BY utilisateur
    ORDER BY 2 desc)
WHERE rownum <= 10;
```

12) Lister l'appareil le plus utilisé pour chaque auditeur.

```
SELECT utilisateur, MAX(appareil_connecte) as apparail_favori
FROM Session_ecoute
GROUP BY utilisateur;
```

13) Lister les artistes qui ont fait des featurings dans l'année 2021.

```
SELECT A.nom
FROM Cree C, Artiste A, Chanson Ch, Album Al, Contenue Co
WHERE C.role_artiste = 'secondaire'
    AND Ch.annee = '2021'
    AND Al.annee = '2021'
    AND C.artisteid = A.artisteid
    AND C.chansonid = Ch.chansonid
    AND Co.albumid = Al.albumid
    AND Co.chansonid = Ch.chansonid
GROUP BY A.nom;
```

14) Donner l'album le plus écouté par les utilisateurs Français au cours de l'année 2021.

```
SELECT *
FROM(SELECT A.nom as album, SUM(Ch.duree) as temps_ecoute
    FROM Contenue C, Album A, Chanson Ch, (
        SELECT E.chansonid
```

```
         FROM Ecoute E, Session_ecoute S, Auditeur A
         WHERE E.sessionid = S.sessionid AND S.utilisateur = A.pseudo AND
A.pays = 'France'
     ) E
WHERE E.chansonid = Ch.chansonid AND C.chansonid = Ch.chansonid AND C.albumid
= A.albumid
GROUP BY A.nom
ORDER BY 2 desc)
WHERE rownum = 1;
```

15) Pour chaque album, donner leur nombre d'écoutes.

```
SELECT album, SUM(cpt) as nb_ecoute
FROM (SELECT A.nom as album, COUNT(a.nom) as cpt
     FROM Session_ecoute S, Album A, Contenue Co, Ecoute E
     WHERE S.sessionid = E.sessionid
       AND Co.chansonid = E.chansonid
       AND Co.albumid = A.albumid
     GROUP BY S.sessionid, A.nom, E.chansonid
     HAVING COUNT(E.chansonid) = COUNT(Co.chansonid))
GROUP BY album;
```

16) Donner pour l'auditeur "Maya" son récapitulatif de l'année: stats de l'auditeur(temps d'écoute total, le titres préféré, l'artiste préféré, album préféré, nombre total de genre musical écouté, nombre total d'artiste écoutés).

```
SELECT *
FROM
(SELECT 'Maya' as utilisateur, SUM(C.duree) as temps_total
FROM Session_ecoute S, Ecoute E ,Chanson C
WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND E.chansonid =
C.chansonid),
(SELECT  titre as titre_prefere
FROM(SELECT C.titre,COUNT(C.chansonid) as compteur
    FROM Session_ecoute S, Ecoute E ,Chanson C
    WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND
E.chansonid = C.chansonid
    GROUP BY C.titre
    ORDER BY 2 desc)
WHERE rownum = 1),
(SELECT nom as artiste_prefere
FROM(SELECT A.nom, COUNT(C.artisteid) as compteur
    FROM Session_ecoute S, Ecoute E ,Chanson C, Artiste A
    WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND
E.chansonid = C.chansonid AND C.artisteid = A.artisteid
    GROUP BY A.nom
    ORDER BY 2 desc)
WHERE rownum = 1),
(SELECT nom as album_prefere
FROM(SELECT A.nom, COUNT(C.chansonid) as compteur
```

```sql
    FROM Session_ecoute S, ecoute E ,Contenue C, Album A
    WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND
E.chansonid = C.chansonid AND C.albumid = A.albumid
    GROUP BY A.nom
    ORDER BY 2 desc)
WHERE rownum = 1),
(SELECT COUNT(distinct C.genre_musical) as nb_genre_musical
    FROM Session_ecoute S, Ecoute E ,Chanson C
    WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND
E.chansonid = C.chansonid),
(SELECT COUNT(distinct A.artisteid) as nb_total_artiste
    FROM Session_ecoute S, Ecoute E ,Chanson C, Artiste A
    WHERE S.utilisateur = 'Maya' AND S.sessionid = E.sessionid AND
E.chansonid = C.chansonid AND C.artisteid = A.artisteid);
```

VI.   Jeu de données

```
insert into Auditeur values ('Saadi', 'saadi99@gmail.com', 'NetworkNewbie',
'H', 'Algerie', '12-Dec-1999', '23-Nov-2022', 'Famille');
insert into Auditeur values ('Matteo', 'matteo21@outlook.com', 'SiteduZERO',
'H', 'Canada', '07-Nov-2002', '01-Jan-2015', 'Duo');
insert into Auditeur values ('Leandre', 'leandre20@yahoo.fr', 'PokeFighter',
'H', 'Australien', '03-Jun-2002', '09-Jul-2017', 'Duo');
insert into Auditeur values ('Jules', 'jules78@yahoo.fr', 'PythonLover', 'H',
'Nouvelle Caledonie', '08-Sep-2001', '08-Sep-2020', 'Etudiant');
insert into Auditeur values ('Leyandre', 'leyandre55@outlook.com',
'GoldenWarrior', 'H', 'Norvege', '18-May-1998', '19-Sep-2018', 'Gratuit');
insert into Auditeur values ('Benjamin', 'benben22@gmail.com',
'Security2600', 'H', 'Etats-Unis', '30-Jan-1999', '30-Jan-2016', 'Gratuit');
insert into Auditeur values ('Martin', 'martin68@outlook.com',
'FutureOfNetwork', 'H', 'Belgique', '01-Apr-1997', '09-Feb-2018', 'Premium');
insert into Auditeur values ('Ryan', 'ryan10@yahoo.fr', 'EchecSColaire', 'H',
'Algerie', '15-Jun-2000', '19-Aug-2022', 'Etudiant');
insert into Auditeur values ('Raphael', 'raphael66@outlook.com', 'Smoker',
'H', 'Pays-Bas', '19-Aug-1999', '27-Mar-2018', 'Duo');
insert into Auditeur values ('Antoine', 'antoinedu06@gmail.com',
'FacultyPresident', 'H', 'France', '17-Sep-2002', '04-Nov-2022', 'Famille');
insert into Auditeur values ('Thanushan', 'thanushan@gmail.com',
'Sheesh3269', 'H', 'Sri Lanka', '29-Nov-2001', '19-Oct-2019', 'Premium');
insert into Auditeur values ('Ilyes', 'ilyes@gmail.com', '3grammecite', 'H',
'France', '12-May-2001', '17-Aug-2021', 'Premium');
insert into Auditeur values ('Maya', 'maya18@gmail.com', 'laboss', 'F',
'France', '18-Jul-2001', '25-Dec-2017', 'Famille');
insert into Auditeur values ('Cerine', 'cece@gmail.com', 'lunettesnoires',
'F', 'Algerie', '01-Oct-1998', '09-Jul-2020', 'Gratuit');
insert into Auditeur values ('Lison', 'lison@gmail.com', 'desiiign', 'F',
'France', '15-Sep-2001', '23-Jun-2019', 'Premium');
insert into Auditeur values ('Rebecca', 'rebus@outlook.com', 'Rebecalembour',
'F', 'France', '03-Sep-2001', '03-Apr-2015', 'Gratuit');
insert into Auditeur values ('Luka', 'moloi@yahoo.fr', 'Moloi123', 'H',
'Croatie', '02-May-2011', '09-Aug-2020', 'Famille');
insert into Auditeur values ('Margaux', 'magogo@yahoo.fr', 'NinaCor3', 'F',
'France', '10-Nov-2001', '10-Oct-2021', 'Etudiant');
insert into Auditeur values ('PL', 'peboui@outlook.com', 'Scapin4', 'H',
'France', '09-Mar-1998', '19-May-2022', 'Famille');
insert into Auditeur values ('Pauline', 'paupau@gmail.com', 'Poppyy89', 'F',
'Italie', '30-Aug-1999', '27-Jan-2018', 'Gratuit');
insert into Auditeur values ('Marko', 'marki@outlook.com', 'Metal0ver', 'H',
'Croatie', '18-Apr-1995', '09-Feb-2018', 'Gratuit');
insert into Auditeur values ('Lorenzo', 'bipbiip@yahoo.fr', 'jlbzjlbz3', 'H',
'France', '13-Jun-1996', '19-Oct-2017', 'Premium');
insert into Auditeur values ('Aurelien', 'aurere@outlook.com', 'poncitou',
'H', 'France', '01-Jan-1992', '02-Mar-2016', 'Premium');
insert into Auditeur values ('Gaelle', 'gaga06@gmail.com', '0desUs', 'F',
'Pays-Bas', '14-Jun-1993', '04-Jan-2029', 'Duo');
```

```sql
insert into Auditeur values ('Nora', 'nonobour@gmail.com', 'BourBIIIER', 'F',
'Maroc', '08-Dec-1995', '11-Nov-2021', 'Premium');
insert into Auditeur values ('Julien', 'juju@gmail.com', 'musc1or', 'H',
'France', '19-Jan-1995', '17-Aug-2021', 'Premium');
insert into Auditeur values ('Xavier', 'lexav@gmail.com', 'boul2r', 'H',
'France', '14-Aug-1987', '22-Oct-2016', 'Premium');
insert into Auditeur values ('Neila', 'nine@gmail.com', 'tr0sap3', 'F',
'Algerie', '04-Nov-2000', '03-Oct-2020', 'Etudiant');
insert into Auditeur values ('Jean', 'dujar@gmail.com', 'lablanquette', 'H',
'France', '12-Jun-1984', '02-May-2019', 'Premium');
insert into Auditeur values ('Amy', 'mimy@gmail.com', 'sporti1', 'F',
'Canada', '23-Dec-2001', '09-Sep-2020', 'Etudiant');



--1

insert into Playlist values (playlist_seq.nextval, 'K-pop playlist',
'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'08-Dec-2022','ordinateur', 'Rebecca', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Stray Kids', 'Coreen', 0,
'JYP');

insert into Album values (album_seq.nextval, 'I am WHO', 'K-pop', 2018,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Voices', 'K-pop', 3.20,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Chanson values (chanson_seq.nextval, 'My Pace', 'K-pop', 3.09,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Album values (album_seq.nextval, 'SKZ2021', 'K-pop', 2021,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Awaken', 'K-pop', 3.14,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
```

```sql
insert into Chanson values (chanson_seq.nextval, 'Broken Compass', 'K-pop',
3.41, 2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Chanson values (chanson_seq.nextval, 'Insomnia', 'K-pop', 3.26,
2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Idle', 'Coreen', 0,
'Cube');


insert into Chanson values (chanson_seq.nextval, 'Latata', 'K-pop', 3.22,
2018, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval, chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Chanson values (chanson_seq.nextval, 'Nxde', 'K-pop', 2.58 ,
2022, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

--2

insert into Playlist values (playlist_seq.nextval, 'Rap vibes', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'10-Dec-2022', 'telephone', 'Thanushan', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Dinos', 'Francais', 0,
'Capitol Music');

insert into Album values (album_seq.nextval, 'Hiver a Paris', 'Rap', 2022,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Quatre Saisons', 'Rap',
3.37, 2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
```

```sql
insert into Chanson values (chanson_seq.nextval, 'Par Amour', 'Rap', 3.36,
2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Rouge Drama', 'Rap', 2.51,
2022, artiste_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'ADN', 'Rap', 2.59, 2022,
artiste_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Album values (album_seq.nextval, 'Stamina', 'Rap', 2020,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Diptyque', 'Rap', 3.28,
2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Ciel pleure', 'Rap', 3.18,
2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Laylow', 'Francais', 0,
'Digital Mundo');

insert into Cree values (cree_seq.currval, 'secondaire', chanson_seq.currval,
artiste_seq.currval);

insert into Album values (album_seq.nextval, 'Trinity', 'Rap', 2020,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Megatron', 'Rap', 2.55,
2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
```

```sql
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);


--3

insert into Playlist values (playlist_seq.nextval, 'Pensif', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'11-Dec-2018', 'ordinateur', 'Benjamin', playlist_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Akanizer', 'Rap', 1.42,
2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Poizon', 'Rap', 3.36, 2020,
artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Gringe', 'Francais', 0,
'Wagram Music');

insert into Album values (album_seq.nextval, 'Enfant Lune', 'Rap', 2018,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Je la laisse faire', 'Rap',
3.33, 2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'LMP', 'Rap', 4.10, 2018,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--4

insert into Playlist values (playlist_seq.nextval, 'Chill', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Jul-2022', 'telephone', 'Maya', playlist_seq.currval);
```

```sql
insert into Artiste values (artiste_seq.nextval, 'Wallows', 'Americain', 0,
'Warner Music');

insert into Album values (album_seq.nextval, 'Nothing happens', 'Inde', 2018,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Scrawny', 'Inde', 2.45,
2019, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Wish me Luck', 'Inde',
3.21, 2022, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Sidelines', 'Inde', 3.00,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);


--5

insert into Playlist values (playlist_seq.nextval, 'Célafet', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'11-Aug-2021', 'telephone', 'Lison', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Zico', 'Coreen', 0, 'KOZ
Entertainment');

insert into Album values (album_seq.nextval, 'Television', 'K-pop', 2017,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Artist', 'K-pop', 3.53,
2017, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Fanxy child', 'K-pop',
3.12, 2017, artiste_seq.currval);
```

```sql
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Bermuda Triangle', 'Rap',
3.25, 2020, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Dean', 'Coreen', 0,
'Universal Music');

insert into Cree values (cree_seq.currval, 'secondaire', chanson_seq.currval,
artiste_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Crush', 'Coreen', 0, 'P
Nation');

insert into Cree values (cree_seq.currval, 'secondaire', chanson_seq.currval,
artiste_seq.currval);


--6

insert into Playlist values (playlist_seq.nextval, 'Poki', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'12-Mar-2019', 'appareil divers', 'Saadi', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'The Notorious BIG',
'Americain', 0, 'Bad boy records');

insert into Album values (album_seq.nextval, 'Born Again', 'Hip-hop', 1999,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Who Shot Ya', 'Hip-hop',
3.47, 1999, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Dead Wrong', 'Hip-hop',
4.56, 1999, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
```

```sql
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Eminem', 'Americain', 0,
'Shady Records');

insert into Cree values (cree_seq.currval, 'secondaire', chanson_seq.currval,
artiste_seq.currval);

--7

insert into Playlist values (playlist_seq.nextval, 'Nanana', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'19-Dec-2020', 'telephone', 'Matteo', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Lorenzo', 'Francais', 0,
'Initial Artist Services');

insert into Album values (album_seq.nextval, 'Légende Vivante', 'Rap', 2022,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Catastrophe', 'Rap', 2.18,
2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Le Daron', 'Rap', 3.32,
2022, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Coco', 'Rap', 2.44, 2022,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--8

insert into Playlist values (playlist_seq.nextval, 'Célon', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'20-Nov-2022', 'tablette', 'Jules', playlist_seq.currval);
```

```sql
insert into Artiste values (artiste_seq.nextval, 'Orelsan', 'Francais', 0,
'Wagram Music');

insert into Album values (album_seq.nextval, 'Civilisation', 'Rap', 2021,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Shonen', 'Rap', 2.32, 2021,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Du propre', 'Rap', 3.46,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Manifeste', 'Rap', 7.21,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--9

insert into Playlist values (playlist_seq.nextval, 'Bientou', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'20-Jun-2022', 'telephone', 'Maya', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Trei Degete', 'Francais',
1, null);

insert into Chanson values (chanson_seq.nextval, 'Tum tum', 'Pop', 2.35,
2021, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--10

insert into Playlist values (playlist_seq.nextval, 'italo', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'10-Dec-2021', 'appareil divers', 'Leyandre', playlist_seq.currval);
```

```sql
insert into Artiste values (artiste_seq.nextval, 'Mahmood', 'Italien', 0,
'Island Records');

insert into Album values (album_seq.nextval, 'GhettoLimpo', 'Inde', 2021,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Inuyasha', 'Inde', 3.53,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Kobra', 'Inde', 2.59, 2021,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Klan', 'Inde', 2.58, 2021,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Zero', 'Inde', 4.18, 2021,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);


--11

insert into Playlist values (playlist_seq.nextval, 'Solidays', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'20-Jun-2022', 'telephone', 'Thanushan', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Tsew The Kid', 'Francais',
0, 'Wagram Music');

insert into Album values (album_seq.nextval, 'Diavolana', 'Pop', 2020,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Sur ton corps', 'Pop',
3.07, 2020, artiste_seq.currval);
```

```sql
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Wouna', 'Pop', 3.10, 2020,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Peur de sombrer', 'Pop',
3.14, 2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Ton âme', 'Pop', 2.01,
2019, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);


--12

insert into Playlist values (playlist_seq.nextval, 'Lenita', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'13-Jul-2022', 'ordinateur', 'Lison', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Romeo Elvis', 'Belge', 0,
'Disques Barclay');

insert into Album values (album_seq.nextval, 'Chocolat', 'Rap', 2019,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Soleil', 'Rap', 2.51, 2019,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Solo', 'Rap', 4.07, 2019,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
```

```sql
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--13

insert into Playlist values (playlist_seq.nextval, 'Angélique', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'01-Dec-2020', 'telephone', 'Maya', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Angèle', 'Belge', 0,
'Initial Artist Services');

insert into Album values (album_seq.nextval, 'Brol', 'Pop', 2018,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Jalousie', 'Pop', 3.44,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Nombreux', 'Pop', 3.12,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--14

insert into Playlist values (playlist_seq.nextval, 'Disco', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'10-Feb-2021', 'tablette', 'Ilyes', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Dua Lipa', 'Albanaise', 0,
'Warner Records');

insert into Album values (album_seq.nextval, 'Future Nostalgia', 'Pop', 2020,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Levitaiting', 'Pop', 3.23,
2020, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);
```

```
--15

insert into Playlist values (playlist_seq.nextval, 'Latinaili', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Jul-2019', 'tablette', 'Ryan', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Enrique Iglesias',
'Espagnol', 0, 'Universal Music');

insert into Album values (album_seq.nextval, 'Euphoria', 'Latino', 2010,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Ayer', 'Latino', 3.33,
2010, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Tu Y Yo', 'Latino', 4.01,
2010, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--16

insert into Playlist values (playlist_seq.nextval, 'Rocky', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'09-Aug-2022', 'ordinateur', 'Raphael', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Imagine Dragons',
'Americain', 0, 'Wagram Music');

insert into Album values (album_seq.nextval, 'Evolve', 'Rock', 2017,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Rise up', 'Rock', 3.51,
2017, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Yesterday', 'Rock', 3.25,
2017, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
```

```sql
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);



--17

insert into Playlist values (playlist_seq.nextval, 'Erenbey', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'12-Dec-2022', 'telephone', 'Martin', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Akon', 'Senegalais', 0,
'Konvict Muzik');

insert into Album values (album_seq.nextval, 'Konvicted', 'RNB', 2006,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Shake Down', 'RNB', 3.52,
2006, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'The Rain', 'RNB', 3.27,
2006, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--18

insert into Playlist values (playlist_seq.nextval, 'Rave', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'08-Apr-2021', 'telephone', 'Leandre', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Avicii', 'Suedois', 0,
'Universal Music');

insert into Album values (album_seq.nextval, 'Stories', 'Electro', 2015,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Touch me', 'Electro', 3.33,
2015, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
```

```sql
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--19

insert into Playlist values (playlist_seq.nextval, 'TheVoy', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'20-Jul-2021', 'telephone', 'Margaux', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Amy Winehouse', 'Anglais',
0, 'Island Records');

insert into Album values (album_seq.nextval, 'Back t black', 'Soul', 2006,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Rehab', 'Soul', 3.34, 2006,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Wake up alone', 'Soul',
3.42, 2006, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--20

insert into Playlist values (playlist_seq.nextval, 'AAAAAH', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Jul-2022', 'telephone', 'PL', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Iron Maiden', 'Anglais', 0,
'Universal Music');

insert into Album values (album_seq.nextval, 'Fear off the Dark', 'Metal',
1992, artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'The Fugitive', 'Metal',
4.53, 1992, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
```

```sql
insert into Chanson values (chanson_seq.nextval, 'The Apparition', 'Metal',
3.53, 1992, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--21

insert into Playlist values (playlist_seq.nextval, 'Heehee', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'15-Feb-2022', 'tablette', 'Pauline', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Michael Jackson',
'Americain', 0, 'MJJ Music');

insert into Album values (album_seq.nextval, 'XScape', 'Pop', 2014,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Blue Gangsta', 'Pop', 4.14,
2014, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Album values (album_seq.nextval, 'Invincible', 'Pop', 2001,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Unbreakable', 'Pop', 6.25,
2001, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Heartbraker', 'Pop', 5.09,
2001, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--22

insert into Playlist values (playlist_seq.nextval, 'Troll', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'13-Jul-2021', 'ordinateur', 'Marko', playlist_seq.currval);
```

```sql
insert into Artiste values (artiste_seq.nextval, 'David Castello-Lopes',
'Francais', 1, null);

insert into Chanson values (chanson_seq.nextval, 'Je possède des thunes',
'Pop', 2.21, 2021, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Un morceau d emmental',
'Pop', 2.40, 2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--23

insert into Playlist values (playlist_seq.nextval, 'japjap', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Nov-2022', 'telephone', 'Nora', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Aurora', 'Norvegien', 0,
'Decca');

insert into Album values (album_seq.nextval, 'A11 my demons greeting me as a
friend', 'Pop', 2016, artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Runaway', 'Pop', 4.08,
2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--24

insert into Playlist values (playlist_seq.nextval, 'Empty', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'29-Dec-2022', 'telephone', 'Julien', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Billie Eilish',
'Americain', 0, 'Universal Music');

insert into Album values (album_seq.nextval, 'Happier than Ever', 'Pop',
2021, artiste_seq.currval);
```

```sql
insert into Chanson values (chanson_seq.nextval, 'Oxytocin', 'Pop', 3.30,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Goldwing', 'Pop', 2.31,
2021, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--25

insert into Playlist values (playlist_seq.nextval, 'Seche', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'10-Dec-2022', 'telephone', 'Amy', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Chilla', 'Suisse', 0,
'Capitol Music');

insert into Chanson values (chanson_seq.nextval, 'Nos souvenirs', 'Electro',
8.05, 2018, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--26

insert into Playlist values (playlist_seq.nextval, 'Almost', 'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Jul-2022', 'telephone', 'Jean', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Post Malone', 'Americain',
0, 'Universal Music');

insert into Album values (album_seq.nextval, 'Hollywoods Bleeding',
'Hip-hop', 2019, artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Circles', 'Hip-hop', 3.35,
2019, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
```

```sql
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Allergic', 'Hip-hop', 2.36,
2019, artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--27

insert into Playlist values (playlist_seq.nextval, 'Fadeuup', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'normal',
'13-Oct-2022', 'telephone', 'Maya', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Hamza', 'Francais', 0,
'Warner Music');

insert into Album values (album_seq.nextval, '1994', 'Rap', 2017,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Life', 'Rap', 3.48, 2017,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'I Got You', 'Rap', 3.09,
2022, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--28

insert into Playlist values (playlist_seq.nextval, 'Nostalgie', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'16-May-2019', 'telephone', 'Saadi', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Halsey', 'Americain', 0,
'Capitol Records');

insert into Album values (album_seq.nextval, 'Badlands', 'Pop', 2015,
artiste_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Castle', 'Pop', 4.37, 2015,
artiste_seq.currval);
```

```sql
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Drive', 'Pop', 4.37, 2015,
artiste_seq.currval);
insert into Contenue values (chanson_seq.currval, album_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);

insert into Chanson values (chanson_seq.nextval, 'Closer', 'Pop', 4.04, 2016,
artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--29

insert into Playlist values (playlist_seq.nextval, 'tiktok vibes',
'publique');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'13-Aug-2022', 'telephone', 'Thanushan', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'Arizona Zervas',
'Americain', 0, 'Columbia Records');

insert into Chanson values (chanson_seq.nextval, 'Roxanne', 'Hip-hop', 2.34,
2019, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

insert into Session_ecoute values (session_seq.nextval, 'normal',
'09-Oct-2022', 'telephone', 'Amy', playlist_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--30

insert into Playlist values (playlist_seq.nextval, 'Inutile', 'prive');

insert into Session_ecoute values (session_seq.nextval, 'aleatoire',
'30-Dec-2022', 'telephone', 'Lorenzo', playlist_seq.currval);

insert into Artiste values (artiste_seq.nextval, 'AmineMaTue', 'Francais', 1,
null);
```

```sql
insert into Chanson values (chanson_seq.nextval, 'La roja', 'Pop', 1.11,
2022, artiste_seq.currval);
insert into Cree values (cree_seq.nextval, 'principal', chanson_seq.currval,
artiste_seq.currval);
insert into Appartient values (playlist_seq.currval,chanson_seq.currval);
insert into Ecoute values (session_seq.currval, chanson_seq.currval);

--Fin
```