



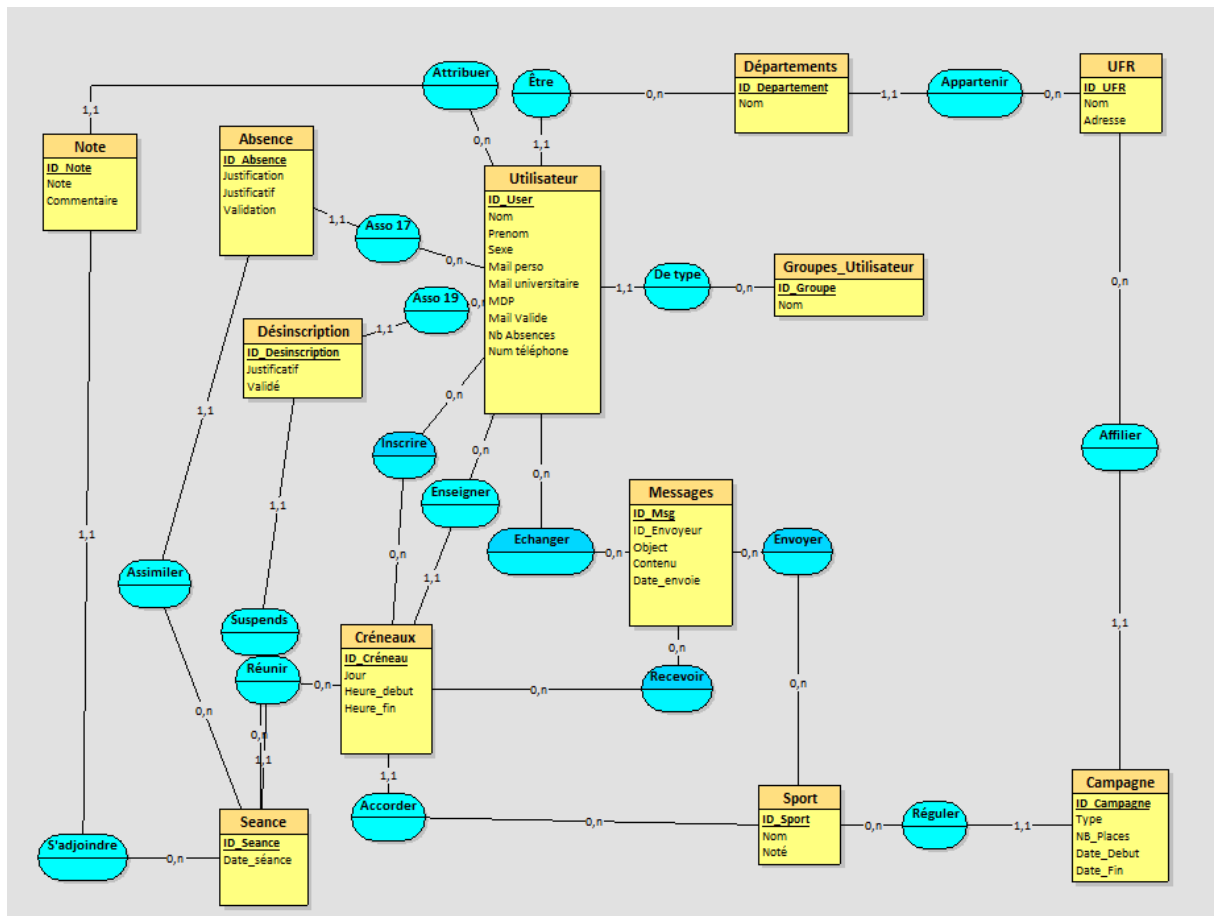
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SAE 104

Base de donnée

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Schémas entité/association de la base de donnée



Modèle relationnel

Messages = (ID_Msg, ID_Envoyeur, Object, Contenu, Date_envoie);
 Sport = (ID_Sport, Nom, Noté);
 UFR = (ID_UFR, Nom, Adresse);
 Groupes_Utilisateur = (ID_Groupe, Nom);
 Campagne = (ID_Campagne, #ID_UFR, #ID_Sport, Type, NB_Places, Date_Debut, Date_Fin);
 Départements = (ID_Departement, #ID_UFR, Nom);
 Utilisateur = (ID_User, #ID_Groupe, #ID_Departement, Nom, Prenom, Sexe, Mail_perso, Mail_universitaire, MDP, Mail_Valide, Nb_Absences, Num_téléphone);
 Créneaux = (ID_Créneau, #ID_User, #ID_Sport, Jour, Heure_debut, Heure_fin);
 Seance = (ID_Seance, #ID_Créneau, Date_seance);
 Absence = (ID_Absence, #ID_User, #ID_Seance, Justification, Justificatif, Validation);
 Note = (ID_Note, #ID_User, #ID_Seance, Note, Commentaire);
 Désinscription = (ID_Desinscription, #ID_User, #ID_Seance, Justificatif, Validé);
 Inscrire = (#ID_User, #ID_Créneau);
 Echanger = (#ID_User, #ID_Msg);
 Recevoir = (#ID_Créneau, #ID_Msg);
 Envoyer = (#ID_Msg, #ID_Sport);

Script de création de la base de donnée

```
USE p2104367;

SET default_storage_engine= InnoDB;

SET SQL_SAFE_UPDATES=0;

CREATE TABLE UFR(

    ID_UFR INT SERIAL DEFAULT VALUE,

    Nom VARCHAR(50) unique,

    Adresse VARCHAR(100),

    CONSTRAINT PK_UFR PRIMARY KEY(ID_UFR)

);


CREATE TABLE Groupes_Utilisateur(

    ID_Groupe INT SERIAL DEFAULT VALUE,

    Nom VARCHAR(50),

    CONSTRAINT PK_ID_Groupe PRIMARY KEY(ID_Groupe)

);


CREATE TABLE Départements(

    ID_Departement INT SERIAL DEFAULT VALUE,

    Nom VARCHAR(50),

    ID_UFR INT NOT NULL,

    CONSTRAINT PK_Département PRIMARY KEY (ID_Departement),

    CONSTRAINT FK_Département_UFR FOREIGN KEY (ID_UFR) REFERENCES

    UFR(ID_UFR) ON DELETE RESTRICT

);
```

```

CREATE TABLE Utilisateur(
    ID_User INT SERIAL DEFAULT VALUE,
    Nom VARCHAR(50) NOT NULL,
    Prenom VARCHAR(50) NOT NULL,
    Sexe Varchar(20) NOT NULL,
    Mail_perso VARCHAR(100) NOT NULL,
    Mail_universitaire VARCHAR(50),
    MDP VARCHAR(150) DEFAULT (concat(Prenom, ".", Nom)),
    Mail_Valide BOOL,
    Nb_Absences INT,
    Num_téléphone VARCHAR(15),
    ID_Groupe INT NOT NULL,
    ID_Departement INT NOT NULL,
    PRIMARY KEY(ID_User),
    CONSTRAINT FK_Utilisateur_Groupe FOREIGN KEY(ID_Groupe) REFERENCES
    Groupes_Utilisateur(ID_Groupe) ON DELETE RESTRICT,
    CONSTRAINT PK_Utilisateur FOREIGN KEY(ID_Departement) REFERENCES
    Départements(ID_Departement) ON DELETE RESTRICT
);

```

```

CREATE TABLE Sport(
    ID_Sport INT SERIAL DEFAULT VALUE,
    Nom VARCHAR(50),
    Noté bool default false,
    CONSTRAINT PK_Sport PRIMARY KEY(ID_Sport)
);

```

```

CREATE TABLE Campagne(

```

```

ID_Campagne INT SERIAL DEFAULT VALUE,
Type VARCHAR(50),
NB_Places INT,
Date_Debut DATE NOT NULL,
Date_Fin DATE NOT NULL,
ID_UFR INT NOT NULL,
ID_Sport INT NOT NULL,
CONSTRAINT PK_Campagne PRIMARY KEY(ID_Campagne),
CONSTRAINT FK_Campagne_UFR FOREIGN KEY(ID_UFR) REFERENCES UFR(ID_UFR)
ON DELETE CASCADE,
CONSTRAINT Compagne_Sport FOREIGN KEY(ID_Sport) REFERENCES
Sport(ID_Sport) ON DELETE CASCADE
);

```

```

CREATE TABLE Créneaux(
ID_Créneau INT SERIAL DEFAULT VALUE,
Jour VARCHAR(10),
Heure_debut TIME NOT NULL,
Heure_fin TIME NOT NULL,
ID_Sport INT NOT NULL,
Enseignant int,
CONSTRAINT FK_Créneaux_Utilisateur FOREIGN KEY (Enseignant) REFERENCES
Utilisateur(ID_User) ON DELETE SET NULL,
CONSTRAINT PK_Créneaux PRIMARY KEY(ID_Créneau),
CONSTRAINT FK_Créneaux_Sport FOREIGN KEY(ID_Sport) REFERENCES
Sport(ID_Sport)
);

```

```

CREATE TABLE Messages(

```

```
ID_Msg INT SERIAL DEFAULT VALUE,  
ID_Envoyeur INT NOT NULL,  
Object VARCHAR(50),  
Contenu VARCHAR(2000),  
Date_Envoie TIMESTAMP default now(),  
CONSTRAINT PK_Messages PRIMARY KEY(ID_Msg)  
);
```

```
CREATE TABLE Seance(  
    ID_Seance INT SERIAL DEFAULT VALUE,  
    Date_séance DATE NOT NULL,  
    ID_Créneau INT NOT NULL,  
    CONSTRAINT PK_Seance PRIMARY KEY(ID_Seance),  
    CONSTRAINT FK_Seance_Créneaux FOREIGN KEY(ID_Créneau) REFERENCES  
    Créneaux(ID_Créneau) ON DELETE CASCADE  
);
```

```
CREATE TABLE Absence(  
    ID_Absence INT SERIAL DEFAULT VALUE,  
    ID_User int,  
    Justification VARCHAR(50),  
    Justificatif VARCHAR(100),  
    Validation bool default false,  
    ID_Seance INT NOT NULL,  
    CONSTRAINT PK_Absence PRIMARY KEY(ID_Absence),  
    CONSTRAINT FK_Absence_Seance FOREIGN KEY(ID_Seance) REFERENCES  
    Seance(ID_Seance),  
    CONSTRAINT FK_Absence_Utilisateur FOREIGN KEY(ID_User) REFERENCES  
    Utilisateur(ID_User) ON DELETE CASCADE
```

);

```
CREATE TABLE Note(  
    ID_Note INT SERIAL DEFAULT VALUE,  
    Note DECIMAL(4,2),  
    ID_User INT NOT NULL,  
    ID_Seance INT NOT NULL,  
    Commentaire Varchar(200),  
    CONSTRAINT PK_Note PRIMARY KEY(ID_Note),  
    CONSTRAINT FK_Note_Utilisateur FOREIGN KEY(ID_User) REFERENCES  
Utilisateur(ID_User) ON DELETE CASCADE,  
    CONSTRAINT FK_Note_Seance FOREIGN KEY(ID_Seance) REFERENCES  
Seance(ID_Seance)  
);
```

```
CREATE TABLE Désinscription(  
    ID_Desinscription INT SERIAL DEFAULT VALUE,  
    Justificatif VARCHAR(100),  
    Validé bool default false,  
    ID_Seance INT NOT NULL,  
    ID_User INT NOT NULL,  
    CONSTRAINT PK_Désinscription PRIMARY KEY(ID_Desinscription),  
    CONSTRAINT FK_Désinscription_Seance FOREIGN KEY(ID_Seance) REFERENCES  
Seance(ID_Seance) ON DELETE CASCADE,  
    CONSTRAINT FK_Désinscription_Utilisateur FOREIGN KEY(ID_User) REFERENCES  
Utilisateur(ID_User) ON DELETE CASCADE  
);
```

```
CREATE TABLE Inscire(  

```

```
ID_User INT,  
ID_Créneau INT,  
CONSTRAINT PK_Inscrire PRIMARY KEY(ID_User, ID_Créneau),  
CONSTRAINT FK_Inscrire_Utilisateur FOREIGN KEY(ID_User) REFERENCES  
Utilisateur(ID_User) ON DELETE CASCADE,  
CONSTRAINT FK_Inscrire_Créneaux FOREIGN KEY(ID_Créneau) REFERENCES  
Créneaux(ID_Créneau) ON DELETE CASCADE  
);
```

```
CREATE TABLE Echanger(  
ID_User INT,  
ID_Msg INT,  
CONSTRAINT PK_Echanger PRIMARY KEY(ID_User, ID_Msg),  
CONSTRAINT FK_Echanger_Utilisateur FOREIGN KEY(ID_User) REFERENCES  
Utilisateur(ID_User) ON DELETE CASCADE,  
CONSTRAINT FK_Echanger_Messages FOREIGN KEY(ID_Msg) REFERENCES  
Messages(ID_Msg) ON DELETE CASCADE  
);
```

```
CREATE TABLE Envoyer(  
ID_Msg INT,  
ID_Sport INT,  
CONSTRAINT PK_Envoyer PRIMARY KEY(ID_Msg, ID_Sport),  
CONSTRAINT FK_Envoyer_Messages FOREIGN KEY(ID_Msg) REFERENCES  
Messages(ID_Msg) ON DELETE CASCADE,  
CONSTRAINT FK_Envoyer_Sport FOREIGN KEY(ID_Sport) REFERENCES  
Sport(ID_Sport) ON DELETE CASCADE  
);
```

```
CREATE TABLE Recevoir(  

```



```
ID_Créneau INT,  
ID_Msg INT,  
CONSTRAINT PK_Recevoir PRIMARY KEY(ID_Créneau, ID_Msg),  
CONSTRAINT FK_Recevoir_Créneau FOREIGN KEY(ID_Créneau) REFERENCES  
Créneaux(ID_Créneau) ON DELETE CASCADE,  
CONSTRAINT FK_Recevoir_Messages FOREIGN KEY(ID_Msg) REFERENCES  
Messages(ID_Msg) ON DELETE CASCADE  
);
```

Script de suppression de la base de donnée

```
drop table if exists Recevoir;  
drop table if exists Envoyer;  
drop table if exists Echanger;  
drop table if exists Inscrire;  
drop table if exists Désinscription;  
drop table if exists Note;  
drop table if exists Absence;  
drop table if exists Seance;  
drop table if exists Messages;  
drop table if exists Créneaux;  
drop table if exists Campagne;  
drop table if exists Sport;  
drop table if exists Utilisateur;  
drop table if exists Départements;  
drop table if exists Groupes_Utilisateur;  
drop table if exists UFR;
```

Script d'insertion de donnée

```
USE p2104367;
```

```
SET default_storage_engine= InnoDB;
```

```
SET SQL_SAFE_UPDATES=0;
```

```
INSERT INTO UFR (Nom, Adresse) VALUES ("IUT Lyon1", "71 Rue Peter Fink, 01000  
Bourg-En-Bresse"),("IFSI", "900 Route de Paris, 01440 Viriat"),("IUT Lyon3", "1 Av. des  
Frères Lumières, 69008 Lyon");
```

```
INSERT INTO Départements (Nom, ID_UFR) VALUES ("IUT BIO 2A", (select ID_UFR  
from UFR where Nom Like "IUT Lyon1")), ("IUT BIO 1A", (select ID_UFR from UFR  
where Nom Like "IUT Lyon1")), ("INFO 1A", (select ID_UFR from UFR where Nom Like  
"IUT Lyon1")), ("INFO 2A", (select ID_UFR from UFR where Nom Like "IUT Lyon1")),  
("BIO 1A", (select ID_UFR from UFR where Nom Like "IUT Lyon3")), ("BIO 2A", (select  
ID_UFR from UFR where Nom Like "IUT Lyon3"));
```

```
INSERT INTO Groupes_Utilisateur (nom) VALUES ("Etudiant"), ("Enseignant"),  
("Admin"), ("Super-Admin");
```

```
UPDATE Groupes_Utilisateur SET ID_Groupe = 1 where Nom like "Etudiant";
```

```
UPDATE Groupes_Utilisateur SET ID_Groupe = 50 where Nom like "Enseignant";
```

```
UPDATE Groupes_Utilisateur SET ID_Groupe = 100 where Nom like "Admin";
```

```
UPDATE Groupes_Utilisateur SET ID_Groupe = 200 where Nom like "Super-Admin";
```

```
INSERT INTO Utilisateur (Nom, Prenom, Sexe, Mail_perso, ID_Groupe,  
ID_Departement) VALUES ("Habermacher", "Aurelien",  
"H", "aurelienhabermacher@gmail.com", (select ID_Groupe from Groupes_Utilisateur  
where Nom LIKE "Etudiant"), (select ID_Departement from Départements where Nom
```

```
Like "INFO 1A")), ("Buathier","Lionel", "H","BuathierLionel@gmail.com",(select
ID_Groupe from Groupes_Utilisateur where Nom LIKE "Super-Admin"), (select
ID_Departement from Départements where Nom Like "INFO 1A")),
("BENOUARET","KARIM", "H","BENOUARETKARIM@gmail.com",(select ID_Groupe
from Groupes_Utilisateur where Nom LIKE "Enseignant"), (select ID_Departement
from Départements where Nom Like "INFO 1A")), ("Lapierre","Yohan",
"H","LapierreYohan@gmail.com",(select ID_Groupe from Groupes_Utilisateur where
Nom LIKE "Etudiant"), (select ID_Departement from Départements where Nom Like
"INFO 1A"));
```

```
INSERT INTO Utilisateur (Nom, Prenom, Sexe, MDP, Mail_perso, ID_Groupe,
ID_Departement) VALUES("Lagraa","Hamida", "F",
"1234","LagraaHamida@gmail.com",(select ID_Groupe from Groupes_Utilisateur
where Nom LIKE "Admin"), (select ID_UFR from UFR where Nom Like "IUT Lyon1"));
```

```
INSERT INTO Sport (Nom, Noté) VALUES ("AquaPoney", true),("Escalade",
false),("Course", false),("Judo", false),("Tennis de table", false);
```

```
INSERT INTO Campagne (Type, NB_Places, Date_Debut, Date_Fin, ID_UFR, ID_Sport)
VALUES ("Quotas", 12, now(), adddate(now(), 15), (select ID_UFR from UFR where
Nom LIKE "IUT Lyon1"), (select ID_Sport from Sport where Nom LIKE "AquaPoney"));
```

```
INSERT INTO Créneaux (ID_Sport, Jour, Heure_debut, Heure_fin, Enseignant) VALUES
((select ID_Sport from Sport where Nom like "AquaPoney"), "Mardi", '21:00:00',
'22:30:00', (select ID_User from Utilisateur where lower(Nom) LIKE
lower("BENOUARET") AND lower(Prenom) LIKE lower("Karim") AND ID_Groupe =
(select ID_Groupe from Groupes_Utilisateur where Nom LIKE "Enseignant"))), ((select
ID_Sport from Sport where Nom like "Escalade"), "Mardi", '21:00:00', '22:30:00',
NULL),((select ID_Sport from Sport where Nom like "Tennis de table"), "Jeudi",
'14:00:00', '18:00:00', NULL);
```

```
INSERT INTO Inscrire (ID_User, ID_Créneau) VALUES ((select ID_User from Utilisateur
where lower(Nom) LIKE lower("habermachEr") and lower(Prenom) LIKE
lower("AurEliEn")), (select ID_Créneau from Créneaux inner join Sport on
Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE "Mardi" and
Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE "AquaPoney")), ((select
ID_User from Utilisateur where lower(Nom) LIKE lower("BENOUAReT") and
```

```
lower(Prenom) LIKE lower("Karim")), (select ID_Créneau from Créneaux inner join
Sport on Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE "Mardi" and
Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE "AquaPoney"));
```

```
INSERT INTO Seance (Date_séance, ID_Créneau) VALUES (now(), ((select ID_Créneau
from Créneaux inner join Sport on Sport.ID_Sport = Créneaux.ID_Sport where Jour
LIKE "Mardi" and Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE
"AquaPoney"))), ('2021-01-11', ((select ID_Créneau from Créneaux inner join Sport on
Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE "Mardi" and
Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE "AquaPoney"))),
('2021-11-28', ((select ID_Créneau from Créneaux inner join Sport on Sport.ID_Sport =
Créneaux.ID_Sport where Jour LIKE "Mardi" and Créneaux.Heure_debut LIKE
'21:00:00' and Sport.Nom LIKE "AquaPoney"))));
```

```
INSERT INTO Absence (ID_Seance, ID_User, Justificatif, Justification, Validation)
VALUES ("1", (select ID_User from Utilisateur where lower(nom) LIKE
lower("HaberMachEr") AND lower(Prenom) LIKE lower("Aurellen")),
"C:/Justificatif/Ordonnance.png", "Rendez-vous médical.", true), ("1", (select ID_User
from Utilisateur where lower(nom) LIKE lower("Benouaret") AND lower(Prenom) LIKE
lower("Karim")), NULL, NULL, false);
```

```
INSERT INTO Désinscription (Justificatif, Validé, ID_Seance, ID_User) VALUES
("C:/Justificatif/Ordonnance2.png", true, (select ID_Seance from Seance where
'2021-01-11' LIKE Date_séance AND Seance.ID_Créneau = (select ID_Créneau from
Créneaux inner join Sport on Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE
"Mardi" and Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE
"AquaPoney")), (select ID_User from Utilisateur where lower(nom) LIKE
lower("HaberMachEr") AND lower(Prenom) LIKE lower("Aurellen")));
```

```
INSERT INTO Note (Note, ID_User, ID_Seance) VALUES (15, (select ID_User from
Utilisateur where lower(Nom) LIKE lower("habermachEr") and lower(Prenom) LIKE
lower("AurEliEn")), (select ID_Seance from Seance where '2021-11-28' LIKE
Date_séance AND Seance.ID_Créneau = (select ID_Créneau from Créneaux inner join
Sport on Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE "Mardi" and
Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE "AquaPoney")));
```

```
UPDATE Utilisateur SET Nb_Absences = (select count(ID_Absence) from Absence
where Utilisateur.ID_User = Absence.ID_User AND Validation = false);
```

```
INSERT INTO Messages (ID_Envoyeur, Object, Contenu) VALUES ((select ID_User from
Utilisateur where lower(Nom) LIKE lower("BENOUARET") AND lower(Prenom) LIKE
lower("Karim")), "Absence", "Bonjour /n Je vous prie de justifier vôte absence du
28-11-2021 au plus vite. /n Cordialement, /n Benhouaret Karim");
```

```
INSERT INTO Echanger VALUES ((select ID_User from Utilisateur where lower(Nom)
LIKE lower("BENOUARET") AND lower(Prenom) LIKE lower("Karim")), 1), ((select
ID_User from Utilisateur where lower(Nom) LIKE lower("HABERMACHER") AND
lower(Prenom) LIKE lower("aurelien")), 1);
```

```
INSERT INTO Envoyer VALUES ((select ID_Sport from Sport where lower(Nom) LIKE
lower("AquaPoney")), 1);
```

```
INSERT INTO Recevoir VALUES ((select ID_Créneau from Créneaux inner join Sport on
Sport.ID_Sport = Créneaux.ID_Sport where Jour LIKE "Mardi" and
Créneaux.Heure_debut LIKE '21:00:00' and Sport.Nom LIKE "AquaPoney"), 1);
```

Script de suppression de données

```
DELETE FROM Utilisateur where lower(nom) LIKE lower("HABERMACHER") AND
lower(Prenom) LIKE lower("AURELIEN");
```

```
DELETE FROM Messages where ID_Envoyeur = 3;
```

```
DELETE FROM UFR where ID_UFR = 1;
```

```
DELETE FROM Départements where ID_Departement = 3;
```

Requêtes pour affichage format Excel

Requête admin

```
SELECT Utilisateur.ID_User as "N°étudiant", Utilisateur.Nom, Utilisateur.Prenom,
Utilisateur.Sexe, UFR.Nom as "UFR", Départements.Nom as "Filière",
Utilisateur.Mail_universitaire as "Email_univ", Utilisateur.Num_téléphone as
"Mobile", Sport.Nom, (select Nom from Utilisateur where Utilisateur.ID_User =
Créneaux.Enseignant) as Enseignant, Créneaux.Jour,
concat(left(Créneaux.Heure_Debut, 5), "-", left(Créneaux.Heure_Fin, 5)) as "Heure",
Utilisateur.Nb_Absences as "Abs Non Justif.", Note.Note, Note.Commentaire From
Utilisateur inner join Note on Note.ID_User = Utilisateur.ID_User inner join Inscrire on
Inscrire.ID_User = Utilisateur.ID_User inner join Créneaux on Créneaux.ID_Créneau =
Inscrire.ID_Créneau inner join Sport on Sport.ID_Sport = Créneaux.ID_Sport inner
join Départements on Départements.ID_Departement = Utilisateur.ID_Departement
inner join UFR on UFR.ID_UFR = Départements.ID_UFR where Utilisateur.ID_Groupe =
(select ID_Groupe from Groupes_Utilisateur where Nom like "Etudiant");
```

Requête professeur

```
SELECT Utilisateur.ID_User as "N°étudiant", Utilisateur.Nom, Utilisateur.Prenom,
UFR.Nom as "UFR", Départements.Nom as "Filière", Utilisateur.Mail_universitaire as
"Mail étudiant", Utilisateur.Mail_perso as "Mail étudiant", Utilisateur.Num_téléphone
as "Téléphone", Note.Note, Note.Commentaire, Utilisateur.Nb_Absences as
"Absences Non Justif.", Sport.ID_Sport as "num Activité" from Utilisateur inner join
Groupes_Utilisateur on Groupes_Utilisateur.ID_Groupe = Utilisateur.ID_Groupe inner
join Inscrire on Inscrire.ID_User = Utilisateur.ID_User inner join Créneaux on
Inscrire.ID_Créneau = Créneaux.ID_Créneau inner join Seance on Seance.ID_Créneau
= Créneaux.ID_Créneau inner join Note on Note.ID_Seance = Seance.ID_Seance inner
join Sport on Sport.ID_Sport = Créneaux.ID_Sport inner join Départements on
Utilisateur.ID_Departement = Départements.ID_Departement inner join UFR on
UFR.ID_UFR = Départements.ID_UFR WHERE Créneaux.Enseignant = (Select ID_User
from Utilisateur where lower(Utilisateur.Nom) = lower("Benouaret") AND
lower(Utilisateur.Prenom) = lower("Karim")) AND Utilisateur.ID_Groupe = (Select
Groupes_Utilisateur.ID_Groupe from Groupes_Utilisateur where
Groupes_Utilisateur.Nom LIKE "Etudiant");
```