

# Rendu phase 2 IN513

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Création des tables, de vues, rédaction de triggers/procédures/fonctions, requêtes d'exemples, prompt engineering, debugging sur VM et écriture des scripts de méta-données.

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Création des utilisateurs, de vues, rédaction de triggers/procédures/fonctions, utilisation de sql loader, rédaction du fichier de rendu et debugging sur VM.

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Requêtes d'exemples, relecture du fichier de rendu, correction du jeu de données, rédaction de procédures/fonctions.

## A/ Création du schéma de la base de données

### vote.sql

```
-- Création de la table
create table Vote(
  pseudo varchar(15),
  idpost number(6),
  value Number(1) not null,
  primary key (pseudo, idpost),
  foreign key (pseudo) references Users(pseudo) on delete cascade,
  foreign key (idpost) references Post(idpost) on delete cascade
);
```

### user.sql

```
-- Création de la table
create table Users (
  pseudo varchar(15) primary key,
  name varchar(30),
  surname varchar(30),
  mail varchar(64) not null,
  IPaddress varchar(15) not null,
  description varchar(160),
  ban_end date,
  ban_reason varchar(160)
);
```

### survey.sql

```
-- Création de la table
create table Survey(
  idsurvey Number(6) primary key,
  question varchar(280) not null,
  idpost number(6),
  foreign key (idpost) references Post(idpost) on delete cascade
);
```

### signal.sql

```
-- Création de la table
create table Signal(
  pseudo varchar(15),
  idpost number(6),
  primary key (pseudo, idpost),
  foreign key (pseudo) references Users(pseudo) on delete cascade,
  foreign key (idpost) references Post(idpost) on delete cascade
);
```

### receive.sql

```
-- Création de la table
create table Receive(
  idpm Number(6),
  pseudo varchar(15),
  primary key (idpm, pseudo),
  foreign key (pseudo) references Users(pseudo) on delete cascade
);
```

### private\_message.sql

```
-- Création de la table
create table PrivateMessage(
  idpm Number(6) primary key,
  message varchar(280) not null,
  date_send date not null,
  sender varchar(15),
  foreign key (sender) references Users(pseudo) on delete cascade
);
```

### post.sql

```
-- Création de la table
create table Post (
  idpost number(6) primary key,
  message varchar(280) not null,
  date_post date not null,
  room varchar(20),
  building varchar(20),
  pseudo varchar(15),
  foreign key (pseudo) references Users(pseudo) on delete cascade
);
```

### option.sql

```
-- Création de la table
create table Options(
  idoption Number(6) primary key,
  content varchar(150) not null,
  idsurvey Number(6),
  foreign key (idsurvey) references Survey(idsurvey) on delete cascade
);
```

### hashtag.sql

```
-- Création de la table
create table Hashtag(
  content varchar(140) primary key
);
```

### has\_hashtag.sql

```
-- Création de la table
create table HasHashtag(
  idpost number(6),
  hashtag varchar(140),
  primary key (idpost, hashtag),
  foreign key (idpost) references Post(idpost) on delete cascade,
  foreign key (hashtag) references Hashtag(content) on delete cascade
);
```

});

follow.sql

```
-- Création de la table
create table Follow(
  -- pseudo référence le pseudo d'un utilisateur
  pseudo varchar(15),
  -- follower référence le ou les utilisateur(s) qui suivent 'pseudo'
  follower varchar(15),
  primary key (pseudo, follower),
  foreign key (pseudo) references Users(pseudo) on delete cascade,
  foreign key (follower) references Users(pseudo) on delete cascade
);

alter table Follow add constraint follow_self check (pseudo!=follower);
```

draft.sql

```
-- Création de la table
create table Draft(
  iddraft Number(5) primary key,
  message varchar(280),
  pseudo varchar(15),
  state boolean,
  foreign key (pseudo) references Users(pseudo) on delete cascade
);
```

answer.sql

```
-- Création de la table
create table Answer(
  pseudo varchar(15),
  idoption Number(6),
  primary key (pseudo, idoption),
  foreign key (pseudo) references Users(pseudo) on delete cascade,
  foreign key (idoption) references Options(idoption) on delete cascade
);
```

B/ Jeu de données

prompts.txt

Prompt n°1 :  
Mémorise l'implémentation des tables en SQL ci joint dans le script. Si tu as correctement mémorisé réponds moi "Ok !".  
\*Joindre un script contenant la création des tables\*

Prompt n°2 :  
Mémorise l'implémentation des triggers de la BDD ci joint dans le script. Si tu as correctement mémorisé réponds moi "Ok !".  
\*Joindre l'implémentation des triggers\*

Prompt n°3 :  
Mémorise l'implémentation des droits des divers utilisateurs accédant à la BDD ci joint dans le script. Si tu as correctement mémorisé réponds moi "Ok !".  
\*Joindre l'implémentation des droits\*

Prompt n°4 :  
Mémorise l'implémentation des vues de la BDD ci joint dans le script. Si tu as correctement mémorisé réponds moi "Ok !".  
\*Joindre l'implémentation des vues\*

Prompt n°5 :  
Génère 40 tuples pour la table Users, les éléments textuels sont générés aléatoirement et doivent ressembler à de vraies données.  
Parmis les 40 tuples une dizaine d'entre eux auront les champs ban end et ban reason remplis. Parmi les 40 tuples 25 d'entre eux auront une description. N'oublie pas de générer les données au format CSV  
Serais tu capable de générer un pseudo de manière aléatoire en mélangeant les lettres des champs surname et name et en ajoutant éventuellement le symbol " " ou des chiffres, pour les 40 utilisateurs ?  
Je ne veux pas que les utilisateurs aient tous le même nom basique "user". Par exemple un utilisateur pourrait s'appeller "lulu" ou encore "FoudreDeGuerre", etc.  
De plus modifie les description pour y ajouter quelques descriptions en Anglais et en Français.

Prompt n°6 :  
Génère moi le contenu de la table Post au format CSV. je veux que tu génère 40 tuples, le champ idpost indiquera simplement le numéro de n ième tuple à être généré.  
Le message doit être une chaîne de caractère comme les descriptions, mets des langues variées (Français, Espagnols, Anglais, Allemand, Italien), chacun d'entre eux doit être différent.  
Chaque message doit constituer une phrase cohérente. Parmi les 40 tuples, 25 d'entre eux auront 1 à 7 hashtags dans leur message (Un hashtag correspond au symbole # suivi d'un mot et d'un espace).  
Le champs date\_post sera rempli avec une date au format "AAAA-MM-DD" (met bien les tirets et ce doit être une chaîne de caractères). Parmi les 40 tuples, 25 d'entre eux contiendrons soit l'indication d'un post en cours de rédaction soit l'indication d'un post publié.  
Enfin le champs pseudo soit impérativement correspondre à un pseudo que tu viens de généré pour la table Users.

Prompt n°7 :  
Génère 35 tuples pour la table Survey. Pour le champs idsurvey fait comme avec le champs idpost de la table Post.  
Pour le champs question tu dois générer de manière aléatoire 35 questions en anglais complètement différentes les une des autres.  
Pour le champs idpost récupère un idpost de la table Post de manière aléatoire et sans remise (je ne veux pas que plusieurs tuples aient le même idpost).

Prompt n°8 :  
Génère 45 tuples pour la table Options tu va te baser sur la table Survey.  
Pour chaque tuple de la table survey tu vas générer entre 2 et 5 réponses cohérentes en fonction de la question posée dans chaque tuple de la table Survey  
(Pour chaque tuple de la table Survey tu génère 2 à 5 tuples options dont l'idoption est juste un banal compteur comme idpost, le champs content lui doit répondre à la question du tuple auquel il se réfère)

Prompt n°9 :  
Génère 80 tuples pour la table PrivateMessage. Sachant que idpm est un compteur comme idpost, message doit être une phrase cohérente (comme un post mais sans Hashtags).  
Les champs dates et sender doivent être cohérent de manière à simuler une véritable discussion.  
Exemple : "lulu" envoie : "Je t'aimes." à "juju" et "juju" lui REPOND "Moi aussi !", la date du tuple contenant le message de "lulu" doit être antérieure à celle du tuple du message de "juju", car celle de "juju" est postérieure.  
Un peu comme toi et moi qui avons une conversation, ce message que j'écris aura une date antérieur à ta réponse. N'oublie pas que le champs "sender" correspond au pseudo d'un utilisateur présent dans la table Users.

Prompt n°10 :  
Génère maintenant 80 tuples pour la table Receive qui simule qui à reçu chaque PrivateMessage, essaie de garder les discussion les plus cohérentes possible.

Prompt n°11 :  
Peuple la table Follow avec 80 tuples de telle sorte que les champs pseudo et follower soient toujours différent et qu'ils soient tous deux des pseudo de la table Users.

Prompt n°12 :  
Génère 35 tuples pour la table Draft. Le champs iddraft est fonctionne comme le champs idpost, le message doit être une phrase et le pseudo soit être inclut dans la table Users.

Prompt n°13 :  
Génère 80 tuples pour la table Vote. Sachant que pseudo est un pseudo de la table Users, idpost doit être compris dans la table Post et value prend soit la valeur "-1" ou la valeur "1". De plus 15 tuples auront une valeur de 0.

Prompt n°14 :  
Génère 40 tuples pour la table Signal. Parmi ceux ci 31 tuples auront la même valeur de idpost. Fais en sorte que tous les pseudo soient unique.

Prompt n°15 :  
Génère 80 tuples pour la table Answer (fait bien attention à ce que les clés étrangère existent dans leur tables respectives).

Informations supplémentaires :  
- Modèle utilisé : Chat-GPT4o  
- Les données générés ont été retravaillées pour répondre aux enjeux des contraintes d'intégrité de la BDD et d'Oracle.  
Pour retravailler les données nous avons utilisé Chat-GPT et Python.

Répartition finale des tuples de chaque table :

Users : 40  
Quelques exemples :  
quirrfy29,John,Doe,john.doe@example.com,192.168.1.1,"Utilisateur actif sur le réseau social.",2024-12-15,"Violation of guidelines"  
smithjane,Jane,Smith,jane.smith@example.com,192.168.1.2,"Explorateur de hashtags tendance.",,"  
mikej09,Mike,Johnson,mike.johnson@example.com,192.168.1.3,"Enjoying my time on this platform!","",

Post : 40  
Quelques exemples :  
1,"The quick brown fox jumps over the lazy dog. #adventure #nature",2024-03-15,,,"quirrfy29"  
2,"Un petit pas pour l homme, un grand pas pour l humanite. #espace",2024-07-22,,,"smithjane"  
3,"Caminante, no hay camino, se hace camino al andar. #cultura",2024-01-19,"RoomA","BuildingX","mikej09"

Survey : 35  
Quelques exemples :  
1,"What is the best way to improve communication skills?",1

2,"How do you define success in your own life?",2  
3,"What motivates you to wake up every morning?",3

**Options** : 55  
**Quelques** exemples :  
1,"Spend more time communicating with others.",1  
2,"Practice active listening daily.",1  
3,"Set clear goals for personal achievements.",2

**PrivateMessage** : 80  
**Quelques** exemples :  
1,"I hope you are having a wonderful day.",2023-12-01 09:15:32,quirfy29  
2,"Thank you! I am doing well. How about you?",2023-12-01 09:30:45,smithjane  
3,"Did you see the latest updates on the project?",2023-12-02 11:05:12,mikej09

**Receive** : 80  
**Quelques** exemples :  
1,smithjane  
2,quirfy29  
3,lindawil

**Follow** : 79  
**Quelques** exemples :  
quirfy29,smithjane  
mikej09,lindawil  
brown\_55,susie88

**Draft** : 35  
**Quelques** exemples :  
1,"The quick brown fox jumps over the lazy dog.",quirfy29  
2,"A journey of a thousand miles begins with a single step.",smithjane  
3,"Life is what happens when you're busy making other plans.",mikej09

**Vote** : 33  
**Quelques** exemples :  
quirfy29,1,1  
smithjane,2,-1  
mikej09,3,1

**Signal** : 40  
**Quelques** exemples :  
dorohills,5  
kennysco,5  
jadamsk,3

**Answer** : 55  
**Quelques** exemples :  
quirfy29,1  
smithjane,2  
mikej09,3

**Hashtag** : 40  
**Quelques** exemples (tuples extraits des posts) :  
adventure  
nature  
espace

**HasHashtag** : 42  
**Quelques** exemples (tuples extraits des posts) :  
adventure, 1  
nature, 1  
espace, 2

insertions.sql

insert into Users values('quirfy29','John','Doe','john.doe@example.com','192.168.1.1','Utilisateur actif sur le réseau social.',date '2024-12-15','Violation of guidelines');  
insert into Post values(1,'The quick brown fox jumps over the lazy dog. #adventure #nature',date '2024-03-15',null,null,'quirfy29');  
insert into Survey values(1,'What is the best way to improve communication skills?',1);

vote.csv

pseudo, idpost, valute  
quirfy29,31,-1  
smithjane,39,-1  
mikej09,18,1  
lindawil,33,1  
brown\_55,30,1  
susie88,7,1  
furyjams,32,-1  
maryd8,34,-1  
m\_mart,17,1  
pattie23,34,1  
david34mo,37,-1  
barbwhite,8,1  
richeatay,34,-1  
karenanna,3,-1  
joseph56t,31,-1  
nancyj10,8,1  
charlttc,2,1  
lisa\_lh,27,-1  
cmartinez,12,-1  
clarks,20,-1  
danl33,21,-1  
walkerem,15,-1  
phall92,31,-1  
angieall,39,1  
keviny25,4,1  
dhernz,27,1  
markkings,37,1  
mwright45,15,-1  
donaldlop,14,1  
dorohills,27,-1  
quirfy29,5,1  
smithjane,15,-1  
mikej09,25,1

SQL\*Load

follow

control.txt

LOAD DATA INFILE '../follow.csv'  
INTO TABLE Follow  
FIELDS TERMINATED BY ','  
(  
    pseudo,  
    follower  
)

draft

control.txt

LOAD DATA INFILE '../draft.csv'  
INTO TABLE Draft  
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS  
(  
    iddraft,

```
message,
pseudo,
state
}
```

signal

control.txt

```
LOAD DATA INFILE '../signal.csv'
INTO TABLE Signal
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS
(
    pseudo,
    idpost
)
```

receive

control.txt

```
LOAD DATA INFILE '../receive.csv'
INTO TABLE Receive
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS
(
    idpm,
    pseudo
)
```

private\_message

control.txt

```
LOAD DATA INFILE '../private_message.csv'
INTO TABLE PrivateMessage
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS
(
    idpm,
    message,
    date_send date 'YYYY-MM-DD HH24-MI-SS',
    sender
)
```

vote

control.txt

```
LOAD DATA INFILE '../vote.csv'
INTO TABLE Vote
FIELDS TERMINATED BY ',' TRAILING NULLCOLS
(
    pseudo,
    idpost,
    value
)
```

answer

control.txt

```
LOAD DATA INFILE '../answer.csv'
INTO TABLE Answer
FIELDS TERMINATED BY ','
(
    pseudo,
    idoption
)
```

option

control.txt

```
LOAD DATA INFILE '../options.csv'
INTO TABLE Options
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'
(
    idoption,
    content,
    idsurvey
)
```

survey

control.txt

```
LOAD DATA INFILE '../survey.csv'
INTO TABLE Survey
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS
(
    idsurvey,
    question,
    idpost
)
```

post

control.txt

```
LOAD DATA INFILE '../posts.csv'
INTO TABLE Post
FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' TRAILING NULLCOLS
(
    idpost,
    message,
    date_post date "YYYY-MM-DD",
    room,
    building,
    pseudo
)
```

user

control.txt

```
LOAD DATA INFILE '../users.csv'
INTO TABLE Users
FIELDS TERMINATED BY ',' TRAILING NULLCOLS
(
    pseudo,
    name,

```

```
    surname,
    mail,
    IPaddress,
    description,
    ban_end date    "YYYY-MM-DD",
    ban_reason
)

```

load.sh

```
#!/bin/bash

# Peuple la base de donnée à grâce à SQL*Load.

sqlldr userid=admin/banane control=user/control.txt log=user/log.txt bad=user/bad.txt discard=user/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=post/control.txt log=post/log.txt bad=post/bad.txt discard=post/discard.txt errors=0 skip=0
sqlldr userid=admin/banane control=survey/control.txt log=survey/log.txt bad=survey/bad.txt discard=survey/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=option/control.txt log=option/log.txt bad=option/bad.txt discard=option/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=answer/control.txt log=answer/log.txt bad=answer/bad.txt discard=answer/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=vote/control.txt log=vote/log.txt bad=vote/bad.txt discard=vote/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=private_message/control.txt log=private_message/log.txt bad=private_message/bad.txt discard=private_message/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=receive/control.txt log=receive/log.txt bad=receive/bad.txt discard=receive/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=signal/control.txt log=signal/log.txt bad=signal/bad.txt discard=signal/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=draft/control.txt log=draft/log.txt bad=draft/bad.txt discard=draft/discard.txt errors=0 skip=1
sqlldr userid=admin/banane control=follow/control.txt log=follow/log.txt bad=follow/bad.txt discard=follow/discard.txt errors=0 skip=1

```

users.csv

```
pseudo,name,surname,mail,IPaddress,description,ban_end,ban_reason
quirffy29,John,Doe,john.doe@example.com,192.168.1.1,"Utilisateur actif sur le réseau social.",2024-12-15,"Violation of guidelines"
smithjane,Jane,Smith,jane.smith@example.com,192.168.1.2,"Explorateur de hashtags tendance.",,
mikej09,Mike,Johnson,mike.johnson@example.com,192.168.1.3,"Enjoying my time on this platform!",,
lindawil,Linda,Williams,linda.williams@example.com,192.168.1.4,"Découvrez de nouvelles fonctionnalités ici.",2025-03-22,"Violation of guidelines"
brown_55,Robert,Brown,robert.brown@example.com,192.168.1.5,"Always up for new challenges!",,
susie88,Susan,Jones,susan.jones@example.com,192.168.1.6,,
furyjams,James,Garcia,james.garcia@example.com,192.168.1.7,"Enjoying my time on this platform!",,
maryd8,Mary,Davis,mary.davis@example.com,192.168.1.8,"Pas de sentiments ici.",2025-07-01,"Violation of guidelines"
m_mart,Mike,Martinez,michael.martinez@example.com,192.168.1.9,"Always up for new challenges!",,
pattie23,Patricia,Hernandez,patricia.hernandez@example.com,192.168.1.10,"Explorateur de hashtags tendance.",,
david34mo,David,Moore,david.moore@example.com,192.168.1.11,,
barbwhite,Barbara,White,barbara.white@example.com,192.168.1.12,"Utilisateur actif sur le réseau social.",2024-12-30,"Violation of guidelines"
richeatay,Richard,Taylor,richard.taylor@example.com,192.168.1.13,"I'm a No0b V0-0/",,
karenanna,Karen,Anderson,karen.anderson@example.com,192.168.1.14,"Découvrant de nouvelles fonctionnalités ici.",,
joseph56t,Joseph,Thomas,joseph.thomas@example.com,192.168.1.15,"Utilisateur actif sur le réseau social.",,
nancyj18,Nancy,Johnson,nancy.jackson@example.com,192.168.1.16,"Explorateur de hashtags tendance.",2025-01-10,"Violation of guidelines"
charlttc,Charles,Thompson,charles.thompson@example.com,192.168.1.17,"Always up for new challenges!",,
lisa_lh,Lisa,Harris,lisa.harris@example.com,192.168.1.18,"Enjoying my time on this platform!",,
cmartinez,Christopher,Martinez,christopher.martinez@example.com,192.168.1.19,"Découvrant de nouvelles fonctionnalités ici.",,
clarks,Clark,Sarah,sarah.clark@example.com,192.168.1.20,"Always up for new challenges!",2025-08-15,"Violation of guidelines"
danl33,Daniel,Lee,daniel.lee@example.com,192.168.1.21,"Enjoying my time on this platform!",,
walkerem,Emily,Walker,emily.walker@example.com,192.168.1.22,"Utilisateur actif sur le réseau social.",,
phal192,Paul,Hall,paul.hall@example.com,192.168.1.23,"Découvrant de nouvelles fonctionnalités ici.",,
angieall,Angela,Allen,angela.allen@example.com,192.168.1.24,,
kevin25,Kevin,Young,kevin.young@example.com,192.168.1.25,"Explorateur de hashtags tendance.",2025-03-20,"Violation of guidelines"
dhernz,Dorothy,Hernandez,dorothy.hernandez@example.com,192.168.1.26,,
markkings,Mark,King,mark.king@example.com,192.168.1.27,"Enjoying my time on this platform!",,
mwright45,Michelle,Wright,michelle.wright@example.com,192.168.1.28,"Always up for new challenges!",,
donaldlop,Donald,Lopez,donald.lopez@example.com,192.168.1.29,"Découvrant de nouvelles fonctionnalités ici.",,
dorohills,Dorothy,Hill,dorothy.hill@example.com,192.168.1.30,"Utilisateur actif sur le réseau social.",,
kennysco,Kenneth,Scott,kenneth.scott@example.com,192.168.1.31,,
jgreen77,Jessica,Green,jessica.green@example.com,192.168.1.32,"Explorateur de hashtags tendance.",2024-12-25,"Violation of guidelines"
jadamsk,Jason,Adams,jason.adams@example.com,192.168.1.33,"Always up for new challenges!",,
shirlnelson,Shirley,Nelson,shirley.nelson@example.com,192.168.1.34,,
brianb7,Brian,Baker,brian.baker@example.com,192.168.1.35,"Enjoying my time on this platform!",,
cynthia55,Cynthia,Carter,cynthia.carter@example.com,192.168.1.36,"Découvrant de nouvelles fonctionnalités ici.",,
georgem15,George,Mitchell,george.mitchell@example.com,192.168.1.37,"Utilisateur actif sur le réseau social.",2025-06-10,"Violation of guidelines"
laurarobs,Laura,Roberts,laura.roberts@example.com,192.168.1.38,"Always up for new challenges!",,
edp23,Edward,Phillips,edward.phillips@example.com,192.168.1.39,,
rebcam99,Rebecca,Campbell,rebecca.campbell@example.com,192.168.1.40,"Explorateur de hashtags tendance.",,

```

survey.csv

```
idsurvey,question,idpost
1,"What is the best way to improve communication skills?",1
2,"How do you define success in your own life?",2
3,"What motivates you to wake up every morning?",3
4,"Do you believe in the power of positive thinking?",4
5,"How do you stay focused while working from home?",5
6,"What is the importance of financial literacy today?",6
7,"Why is physical fitness essential for mental health?",7
8,"How can one overcome the fear of failure?",8
9,"What are your thoughts on artificial intelligence?",9
10,"Do you believe that history repeats itself?",10
11,"What is your opinion on climate change policies?",11
12,"How can technology enhance educational systems?",12
13,"What does happiness mean to you personally?",13
14,"Do you prefer working alone or in a team?",14
15,"What are the key traits of a good leader?",15
16,"Why is it important to have hobbies?",16
17,"What role does art play in our society?",17
18,"How do you handle criticism constructively?",18
19,"Do you believe humans will live on Mars someday?",19
20,"What are the benefits of learning new languages?",20
21,"What are the best practices for time management?",21
22,"How can one maintain work-life balance effectively?",28
23,"What is the most significant book you have read?",23
24,"How can we protect endangered species?",24
25,"What strategies help in building self-confidence?",25
26,"Why is volunteering beneficial for personal growth?",26
27,"How do you approach solving complex problems?",27
28,"What are the impacts of social media on youth?",28
29,"Why is critical thinking important in decision-making?",29
30,"What is your perspective on renewable energy sources?",30
31,"How can we encourage creativity in schools?",31
32,"What inspires you to take on new challenges?",32
33,"How do cultural differences shape our perspectives?",33
34,"What are the benefits of practicing mindfulness?",34
35,"Why is collaboration vital in achieving common goals?",35

```

signal.csv

```
pseudo,idpost
quirffy29,5
smithjane,5
mikej09,5
lindawil,5
brown_55,5
susie88,5
furyjams,5
maryd8,5
m_mart,5
pattie23,5
david34mo,5
barbwhite,5
richeatay,5
karenanna,5
joseph56t,5
nancyj18,5
charlttc,5

```

|              |
|--------------|
| lisa_lh,5    |
| cmartinez,5  |
| clarks,5     |
| danl33,5     |
| walkerem,5   |
| phall92,5    |
| angieall,5   |
| keviny25,5   |
| dhernz,5     |
| markkings,5  |
| mwright45,5  |
| donaldlop,5  |
| dorohills,5  |
| kennysco,5   |
| jadamsk,3    |
| brianb7,7    |
| georgem15,10 |
| laurarobs,15 |
| edp23,18     |
| mikej09,22   |
| quirfy29,30  |
| smithjane,35 |
| mikej09,40   |

receive.csv

|              |
|--------------|
| idpm,pseudo  |
| 1,smithjane  |
| 2,quirfy29   |
| 3,lindawil   |
| 4,mikej09    |
| 5,susie88    |
| 6,brown_55   |
| 7,maryd8     |
| 8,furyjams   |
| 9,pattie23   |
| 10,m_mart    |
| 11,barbwhite |
| 12,david34mo |
| 13,karenanna |
| 14,richeatay |
| 15,nancyj10  |
| 16,joseph56t |
| 17,lisa_lh   |
| 18,charlttc  |
| 19,clarks    |
| 20,cmartinez |
| 21,smithjane |
| 22,quirfy29  |
| 23,lindawil  |
| 24,mikej09   |
| 25,susie88   |
| 26,brown_55  |
| 27,maryd8    |
| 28,furyjams  |
| 29,pattie23  |
| 30,m_mart    |
| 31,barbwhite |
| 32,david34mo |
| 33,karenanna |
| 34,richeatay |
| 35,nancyj10  |
| 36,joseph56t |
| 37,lisa_lh   |
| 38,charlttc  |
| 39,clarks    |
| 40,cmartinez |
| 41,smithjane |
| 42,quirfy29  |
| 43,lindawil  |
| 44,mikej09   |
| 45,susie88   |
| 46,brown_55  |
| 47,maryd8    |
| 48,furyjams  |
| 49,pattie23  |
| 50,m_mart    |
| 51,barbwhite |
| 52,david34mo |
| 53,karenanna |
| 54,richeatay |
| 55,nancyj10  |
| 56,joseph56t |
| 57,lisa_lh   |
| 58,charlttc  |
| 59,clarks    |
| 60,cmartinez |
| 61,smithjane |
| 62,quirfy29  |
| 63,lindawil  |
| 64,mikej09   |
| 65,susie88   |
| 66,brown_55  |
| 67,maryd8    |
| 68,furyjams  |
| 69,pattie23  |
| 70,m_mart    |
| 71,barbwhite |
| 72,david34mo |
| 73,karenanna |
| 74,richeatay |
| 75,nancyj10  |
| 76,joseph56t |
| 77,lisa_lh   |
| 78,charlttc  |
| 79,clarks    |
| 80,cmartinez |

private\_message.csv

|  |
|--|
| idpm,message,date,sender   |
| 1,"I hope you are having a wonderful day.",2023-12-01 09:15:32,quirfy29            |
| 2,"Thank you! I am doing well. How about you?",2023-12-01 09:30:45,smithjane       |
| 3,"Did you see the latest updates on the project?",2023-12-02 11:05:12,mikej09     |
| 4,"Yes, I reviewed them this morning.",2023-12-02 11:20:18,lindawil                |
| 5,"Let's meet tomorrow to finalize everything.",2023-12-03 14:50:25,brown_55       |
| 6,"Sounds good. I'll bring the presentation.",2023-12-03 15:10:40,susie88          |
| 7,"Have you checked out the new feature?",2023-12-04 08:45:19,furyjams             |
| 8,"Not yet. I'll look into it this evening.",2023-12-04 09:05:37,maryd8            |
| 9,"Can you send me the document by email?",2023-12-05 13:25:49,m_mart              |
| 10,"Sure, I'll forward it to you shortly.",2023-12-05 13:40:03,pattie23            |
| 11,"What's your favorite travel destination?",2023-12-06 18:15:21,david34mo        |
| 12,"I love the mountains. How about you?",2023-12-06 18:30:29,barbwhite            |
| 13,"Do you have any plans for the weekend?",2023-12-07 10:45:12,richeatay          |
| 14,"I might go hiking. What about you?",2023-12-07 11:00:45,karenanna              |
| 15,"Let's catch up over coffee next week.",2023-12-08 09:30:17,joseph56t           |
| 16,"Sure! Monday works for me.",2023-12-08 09:45:56,nancyj10                       |
| 17,"Did you finish the assignment already?",2023-12-09 14:10:34,charlttc           |
| 18,"Yes, I submitted it this morning.",2023-12-09 14:25:48,lisa_lh                 |
| 19,"What do you think about the new policy changes?",2023-12-10 10:15:27,cmartinez |
| 20,"I think they will be beneficial in the long run.",2023-12-10 10:30:13,clarks   |
| 21,"Can we reschedule the meeting to Thursday?",2023-12-11 16:20:42,quirfy29       |

22,"Sure, Thursday works better for me too.",2023-12-11 16:35:19,smithjane  
23,"How was your weekend?",2023-12-12 08:50:32,mikej09  
24,"It was relaxing. How about yours?",2023-12-12 09:05:22,lindawil  
25,"Let's collaborate on the next project.",2023-12-13 15:10:11,brown\_55  
26,"That's a great idea. Let's discuss the details.",2023-12-13 15:25:49,susie88  
27,"Have you watched the new movie release?",2023-12-14 18:45:36,furyjams  
28,"Yes, it was fantastic. You should watch it.",2023-12-14 19:00:12,maryd8  
29,"Can you proofread my article draft?",2023-12-15 12:25:04,m\_mart  
30,"Of course. Send it to me anytime.",2023-12-15 12:40:29,pattie23  
31,"What's your favorite dish to cook?",2023-12-16 17:20:43,david34mo  
32,"I love cooking pasta. How about you?",2023-12-16 17:35:16,barbwhite  
33,"Do you think we should revise the timeline?",2023-12-17 09:40:22,richeatay  
34,"Yes, we might need an extra week to complete it.",2023-12-17 09:55:47,karenanna  
35,"Can you remind me of the meeting agenda?",2023-12-18 14:15:39,joseph56t  
36,"Sure, I'll send it to you after lunch.",2023-12-18 14:30:21,nancyj10  
37,"What's your favorite book genre?",2023-12-19 16:45:12,charlttc  
38,"I enjoy reading mystery novels. What about you?",2023-12-19 17:00:33,lisa\_lh  
39,"Have you tried the new restaurant downtown?",2023-12-20 11:10:52,cmartinez  
40,"Not yet, but I've heard great reviews about it.",2023-12-20 11:25:18,clarks  
41,"What's the best way to improve our workflow?",2023-12-21 10:05:14,quirfy29  
42,"We should focus on automating repetitive tasks.",2023-12-21 10:20:42,smithjane  
43,"Do you have any feedback on my presentation?",2023-12-22 15:35:19,mikej09  
44,"It was excellent. I really liked your approach.",2023-12-22 15:50:24,lindawil  
45,"Are you attending the conference next month?",2023-12-23 13:20:47,brown\_55  
46,"Yes, I've already registered for it.",2023-12-23 13:35:55,susie88  
47,"Can we meet earlier to discuss the proposal?",2023-12-24 09:15:29,furyjams  
48,"Yes, let's meet at 8:30 AM instead.",2023-12-24 09:30:11,maryd8  
49,"What are your thoughts on the current project status?",2023-12-25 14:40:22,m\_mart  
50,"I think we're on track to meet the deadlines.",2023-12-25 14:55:33,pattie23  
51,"Have you made your travel plans for the holidays?",2023-12-26 16:20:14,david34mo  
52,"Yes, I'll be visiting my family.",2023-12-26 16:35:41,barbwhite  
53,"Can you join the team call tomorrow?",2023-12-27 11:10:57,richeatay  
54,"Yes, I'll be available at that time.",2023-12-27 11:25:19,karenanna  
55,"What's the best way to improve team collaboration?",2023-12-28 10:05:42,joseph56t  
56,"Regular communication and shared goals help a lot.",2023-12-28 10:20:31,nancyj10  
57,"Did you receive the latest project report?",2023-12-29 09:50:29,charlttc  
58,"Yes, I reviewed it this morning.",2023-12-29 10:05:14,lisa\_lh  
59,"What's your opinion on the new product launch?",2023-12-30 14:25:33,cmartinez  
60,"I think it's innovative and has great potential.",2023-12-30 14:40:47,clarks  
61,"Can we extend the deadline for the submission?",2023-12-31 15:10:22,quirfy29  
62,"Yes, let's push it by another week.",2023-12-31 15:25:38,smithjane  
63,"How do you plan to celebrate New Year's Eve?",2024-01-01 17:30:25,mikej09  
64,"I'll have a quiet evening at home with family.",2024-01-01 17:45:52,lindawil  
65,"Do you think we need to update the presentation slides?",2024-01-02 08:20:31,brown\_55  
66,"Yes, I'll work on them this afternoon.",2024-01-02 08:35:18,susie88  
67,"What's your next travel destination?",2024-01-03 10:15:42,furyjams  
68,"I'm planning to visit Japan next summer.",2024-01-03 10:30:27,maryd8  
69,"Can we arrange a meeting next week?",2024-01-04 09:05:14,m\_mart  
70,"Sure, let's decide on a suitable time.",2024-01-04 09:20:22,pattie23  
71,"How do you stay motivated during tough times?",2024-01-05 14:40:36,david34mo  
72,"I focus on my goals and stay optimistic.",2024-01-05 14:55:41,barbwhite  
73,"What's the best advice you've ever received?",2024-01-06 10:15:23,richeatay  
74,"Never stop learning and growing.",2024-01-06 10:30:42,karenanna  
75,"Are you free for a call later today?",2024-01-07 16:25:34,joseph56t  
76,"Yes, I'll call you after 5 PM.",2024-01-07 16:40:59,nancyj10  
77,"What's your favorite way to unwind?",2024-01-08 19:15:12,charlttc  
78,"I enjoy listening to music or reading books.",2024-01-08 19:30:44,lisa\_lh  
79,"Can we finalize the details by tomorrow?",2024-01-09 13:10:22,cmartinez  
80,"Yes, I'll send you my inputs tonight.",2024-01-09 13:25:15,clarks

posts.csv

1,"The quick brown fox jumps over the lazy dog. #adventure #nature",2024-03-15,,,,"quirfy29"  
2,"Un petit pas pour l homme, un grand pas pour l humanite. #espace",2024-07-22,,,,"smithjane"  
3,"Caminante, no hay camino, se hace camino al andar. #cultura",2024-01-19,"RoomA","BuildingX","mikej09"  
4,"Ein kleiner Schritt fur einen Menschen, ein riesiger Sprung fur die Menschheit.",2024-04-05,"RoomB",,"lindawil"  
5,"La vita e bella! #amore #famiglia",2024-08-18,,,,"brown\_55"  
6,"Exploring the wonders of the universe. #science",2024-06-30,,,,"susie88"  
7,"Voyagez a travers le temps et l espace. #aventure #exploration",2024-09-09,"RoomC","BuildingZ","furyjams"  
8,"Das Leben ist wie ein Fahrrad. Du musst in Bewegung bleiben, um die Balance zu halten.",2024-11-22,,,,"maryd8"  
9,"Amor omnia vincit. #philosophia",2024-12-01,,,,"m\_mart"  
10,"La curiosite est le moteur de la connaissance. #education",2024-10-15,"RoomD",,"pattie23"  
11,"A smooth sea never made a skilled sailor. #motivation",2024-02-28,,,,"david34mo"  
12,"La patience est la cle du succes. #citation",2024-05-12,,,,"BuildingA","barbwhite"  
13,"Les etoiles nous guident dans l obscurite. #espace #philosophie",2024-03-30,"RoomE","BuildingB","richeatay"  
14,"Viaggio alla scoperta di nuovi orizzonti. #viaggi",2024-06-17,,,,"karenanna"  
15,"Mme Kloul qui connait pas son propre cours #genant #mal-boutonne",2024-09-25,,,,"lisa\_lh"  
16,"Je suis presse, pas le temps dinventer un tweet",2024-09-25,,,,"lisa\_lh"  
17,"Cest lleure daller manger au #crous sa mere g #faim",2024-09-25,,,,"lisa\_lh"  
18,"pov: tas plus de #batterie",2024-09-25,,,,"lisa\_lh"  
19,"non cest trop je desinstalle #leagueoflegends",2024-09-25,,,,"lisa\_lh"  
20,"Il futuro appartiene a coloro che credono nella bellezza dei propri sogni. #ispirazione",2024-12-12,"BuildingC","nancyj10"  
21,"Through hardships to the stars. #inspiration #dreams",2024-03-05,"RoomF",,"charlttc"  
22,"Le bonheur n est reel que lorsqu il est partage. #amitie",2024-07-10,,,,"lisa\_lh"  
23,"Nada te turbe, nada te espante. #fe #esperanza",2024-11-02,,,,"cmartinez"  
24,"Leben ist, was passiert, wahrend du beschaftigt bist, andere Plane zu machen.",2024-08-08,"RoomG","BuildingD","clarks"  
25,"Ogni nuovo giorno e un opportunita. #speranza",2024-06-04,"BuildingE","danl33"  
26,"The best way to predict the future is to create it. #innovation",2024-01-21,"RoomH",,"walkerem"  
27,"Un instant de calme dans un monde de chaos. #reflexion",2024-04-11,,,,"phal192"  
28,"Siempre hay luz detras de las nubes. #esperanza",2024-02-16,"BuildingF","angieall"  
29,"La vie est belle quand on sait la regarder. #positivite",2024-05-27,,,,"keviny25"  
30,"Jedes Ende ist ein neuer Anfang. #leben",2024-12-07,,,,"dhernz"  
31,"Viva la vida y no dejes de sonar. #suenos",2024-03-19,"RoomI",,"markkings"  
32,"L education est l arme la plus puissante pour changer le monde. #savoir",2024-09-14,"BuildingG",,"mwright45"  
33,"Fai quello che ami e non lavorerai un solo giorno della tua vita.",2024-10-20,"RoomJ","BuildingH",,"donaldtop"  
34,"The journey of a thousand miles begins with a single step. #adventure",2024-08-01,,,,"dorohills"  
35,"La simplicite est la sophistication supreme. #design",2024-06-25,,,,"kennysco"  
36,"Cada dia es una nueva oportunidad para ser feliz. #vida",2024-07-19,"RoomK",,"jgreen77"  
37,"L espoir fait vivre. #espoir",2024-04-24,"BuildingI",,"jadamsk"  
38,"Man soll die Feste feiern, wie sie fallen.",2024-05-30,"RoomL","BuildingJ","shirlnelson"  
39,"Das Leben ist wie ein Puzzle. Manchmal fehlen Teile. #nachdenken",2024-12-10,,,,"brianb7"  
40,"Les reves sont faits pour etre realises. #reves",2024-11-25,,,,"cynthia55"

options.csv

idoption,content,idsurvey  
1,"Spend more time communicating with others.",1  
2,"Practice active listening daily.",1  
3,"Set clear goals for personal achievements.",2  
4,"Define what happiness means to you.",2  
5,"Focus on what inspires you every day.",3  
6,"Think about your passions and goals.",3  
7,"Maintain a positive attitude and smile.",4  
8,"Use affirmations to boost your confidence.",4  
9,"Create a dedicated workspace at home.",5  
10,"Set strict working hours to stay productive.",5  
11,"Understand basic budgeting principles.",6  
12,"Learn how to invest your savings wisely.",6  
13,"Engage in regular exercise routines.",7  
14,"Adopt a balanced diet and mindfulness.",7  
15,"Take small, calculated risks.",8  
16,"Seek advice from a mentor or coach.",8  
17,"Embrace the potential of innovation.",9  
18,"Consider ethical implications in development.",9  
19,"Analyze historical patterns carefully.",10  
20,"Reflect on lessons learned from the past.",10  
21,"Advocate for stricter regulations on emissions.",11  
22,"Support renewable energy projects worldwide.",11  
23,"Incorporate technology in lesson planning.",12  
24,"Provide students with interactive learning tools.",12  
25,"Pursue hobbies that bring you joy.",13  
26,"Focus on relationships that matter most.",13

27,"Collaborate with peers for better results.",14  
28,"Value diverse perspectives in teamwork.",14  
29,"Stay adaptable to different situations.",15  
30,"Exhibit empathy towards your team members.",15  
31,"Pick activities that align with your interests.",16  
32,"Experiment with creative pursuits regularly.",16  
33,"Support public funding for museums and art.",17  
34,"Encourage young artists through education.",17  
35,"Learn to process feedback constructively.",18  
36,"Identify areas for self-improvement actively.",18  
37,"Stay informed about new scientific discoveries.",19  
38,"Discuss future possibilities with peers.",19  
39,"Enroll in language courses near your area.",20  
40,"Practice with native speakers regularly.",20  
41,"Consider alternative viewpoints during discussions.",21  
42,"Explore innovative ways to balance priorities.",22  
43,"Discuss the relevance of old classics.",23  
44,"Promote awareness about conservation efforts.",24  
45,"Incorporate positive affirmations into your routine.",25  
46,"Engage with diverse communities for better understanding.",26  
47,"Develop structured frameworks for problem-solving.",27  
48,"Reflect on the long-term impact of social media.",28  
49,"Analyze case studies on decision-making strategies.",29  
50,"Propose incentives for adopting green practices.",30  
51,"Encourage open-ended thinking in assignments.",31  
52,"Challenge yourself to think outside the box.",32  
53,"Celebrate cultural diversity through events.",33  
54,"Integrate relaxation techniques into daily life.",34  
55,"Work collaboratively to achieve meaningful results.",35

follow.csv

pseudo,follower  
quirfy29,smithjane  
mikej09,lindawil  
brown\_55,susie88  
furyjams,maryd8  
m\_mart,pattie23  
david34mo,barbwhite  
richeatay,karenanna  
joseph56t,nancyj10  
charlttc,lisa\_lh  
cmartinez,clarks  
danl33,walkerem  
phall92,angieall  
keviny25,dhernz  
markkings,mwright45  
donaldlop,dorohills  
kennysco,jgreen77  
jadamsk,shirlnelson  
brianb7,cynthia55  
georgem15,laurarobs  
edp23,rebcam99  
smithjane,quirfy29  
Lindawil,mikej09  
susie88,brown\_55  
pattie23,m\_mart  
barbwhite,david34mo  
karenanna,richeatay  
nancyj10,joseph56t  
lisa\_lh,charlttc  
clarks,cmartinez  
walkerem,danl33  
angieall,phall92  
dhernz,keviny25  
mwright45,markkings  
dorohills,donaldlop  
jgreen77,kennysco  
shirlnelson,jadamsk  
cynthia55,brianb7  
laurarobs,georgem15  
rebcam99,edp23  
quirfy29,mikej09  
smithjane,brown\_55  
lindawil,susie88  
maryd8,furyjams  
pattie23,barbwhite  
david34mo,karenanna  
richeatay,nancyj10  
joseph56t,lisa\_lh  
charlttc,cmartinez  
clarks,walkerem  
danl33,phall92  
keviny25,markkings  
dhernz,donaldlop  
mwright45,jgreen77  
kennysco,shirlnelson  
jadamsk,cynthia55  
brianb7,laurarobs  
georgem15,rebcam99  
edp23,quirfy29  
smithjane,mikej09  
mikej09,susie88  
lindawil,maryd8  
brown\_55,pattie23  
furyjams,david34mo  
m\_mart,richeatay  
pattie23,joseph56t  
barbwhite,charlttc  
karenanna,clarks  
nancyj10,walkerem  
lisa\_lh,phall92  
clarks,keviny25  
walkerem,dhernz  
angieall,mwright45  
dhernz,kennysco  
mwright45,jadamsk  
donaldlop,brianb7  
kennysco,georgem15  
jadamsk,edp23  
brianb7,quirfy29  
georgem15,smithjane

draft.csv

iddraft,message,pseudo  
1,"The quick brown fox jumps over the lazy dog.",quirfy29  
2,"A journey of a thousand miles begins with a single step.",smithjane  
3,"Life is what happens when you're busy making other plans.",mikej09  
4,"To be yourself in a world that is constantly trying to make you something else is the greatest accomplishment.",lindawil  
5,"In the middle of every difficulty lies opportunity.",brown\_55  
6,"Success usually comes to those who are too busy to be looking for it.",susie88  
7,"Do not watch the clock. Do what it does. Keep going.",furyjams  
8,"The future belongs to those who believe in the beauty of their dreams.",maryd8  
9,"The best way to predict the future is to invent it.",m\_mart  
10,"Don't count the days, make the days count.",pattie23  
11,"You miss 100% of the shots you don't take.",david34mo  
12,"Life is really simple, but we insist on making it complicated.",barbwhite  
13,"The only limit to our realization of tomorrow will be our doubts of today.",richeatay  
14,"The way to get started is to quit talking and begin doing.",karenanna  
15,"It always seems impossible until it's done.",joseph56t  
16,"What lies behind us and what lies before us are tiny matters compared to what lies within us.",nancyj10



17,"Do what you can, with what you have, where you are.",charlttc  
18,"A man who dares to waste one hour of time has not discovered the value of life.",lisa\_lh  
19,"Happiness is not something ready made. It comes from your own actions.",cmartinez  
20,"Don't wait. The time will never be just right.",clarks  
21,"Everything you've ever wanted is on the other side of fear.",danl33  
22,"Dream big and dare to fail.",walkerem  
23,"What you get by achieving your goals is not as important as what you become by achieving your goals.",phall92  
24,"Do not go where the path may lead, go instead where there is no path and leave a trail.",keviny25  
25,"The purpose of our lives is to be happy.",dhernz  
26,"In order to write about life first you must live it.",markkings  
27,"Turn your wounds into wisdom.",mwright45  
28,"The mind is everything. What you think you become.",donaldlop  
29,"Keep smiling, because life is a beautiful thing and there's so much to smile about.",kennysco  
30,"Life is short, and it is up to you to make it sweet.",jadamsk  
31,"Success is not the key to happiness. Happiness is the key to success.",brianb7  
32,"Believe you can and you're halfway there.",georgem15  
33,"Life is ten percent what happens to us and ninety percent how we respond to it.",laurarobs  
34,"Your time is limited, so don't waste it living someone else's life.",edp23  
35,"Life itself is the most wonderful fairy tale.",rebcam99

answer.csv

pseudo,idoption  
quirfy29,1  
smithjane,2  
mikej09,3  
lindawil,4  
brown\_55,5  
susie88,6  
furyjams,7  
maryd8,8  
m\_mart,9  
pattie23,10  
david34mo,11  
barbwhite,12  
richeatay,13  
karenanna,14  
joseph56t,15  
nancyj10,16  
charlttc,17  
lisa\_lh,18  
cmartinez,19  
clarks,20  
danl33,21  
walkerem,22  
phall92,23  
angieall,24  
keviny25,25  
dhernz,26  
markkings,27  
mwright45,28  
donaldlop,29  
dorohills,30  
kennysco,31  
jadamsk,32  
brianb7,33  
georgem15,34  
laurarobs,35  
edp23,36  
rebcam99,37  
quirfy29,38  
smithjane,39  
mikej09,40  
lindawil,41  
brown\_55,42  
susie88,43  
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mikej09,77  
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C/ Manipulation des données

moderator

moderator.sql

```
-- R28 : Quelle est l'adresse IP de pseudo ?
create or replace function get_IPadress(TARGET_USER in varchar2)
return varchar2 as
    RESULT varchar2(15) := '';
begin
    select IPadress into RESULT
    from Users
    where pseudo = TARGET_USER;

    return RESULT;
end;
/

-- Droits d'exécution des procédures/fonctions :
grant execute on get_IPadress to client, moderator;
```

client

post.sql

```
-- Requête concernant les Posts

-- R8 : Quels sont les récents posts de [TARGET_USER] ?
select *
from admin.Post
where pseudo = 'lulu'
order by date_post desc;

-- R9 : Quels sont les post émis depuis [BUILDING] et/ou [ROOM] ?
select *
from admin.Post
where building = 'Fermat'
and room = 'Amphi J'
order by date_post desc;

-- R10 : Quels sont les posts postés entre [DATE_START] et [DATE_END] ?
select *
from admin.Post
where date_post between date '2012-08-30' and date '2012-10-11'
order by date_post desc;

-- R11 : Quels sont les [N] posts les plus récents ?
select *
from admin.Post
order by date_post desc
fetch first 15 rows only;

-- R12 : Quels sont les posts contenant [WORD] ?

-- Fonction pour vérifier si un mot est contenu dans la chaîne de caractère passée en entrée
select *
from admin.Post
where REGEXP_LIKE(message, 'Banane', 'i') = TRUE
order by date_post desc;

-- R13 : Quels sont les posts utilisant [HASHTAG] ?
select *
from admin.Post
where idpost in (
    select idpost
    from admin.HasHashtag
    where hashtag= 'genant')
order by date_post desc;

-- R14 : Quels sont les posts les plus upvoté (ou downvoté) ?
select P.idpost, P.message, P.date_post, P.room, P.building, P.pseudo, NVL(V.rank, 0) as rank
from admin.Post P
left join (
    select V.idpost, count(V.pseudo) as rank
    from admin.Vote V
    where V.value = 1
    group by V.idpost
) V
on P.idpost = V.idpost
order by rank desc;

select P.idpost, P.message, P.date_post, P.room, P.building, P.pseudo, NVL(V.rank, 0) as rank
from admin.Post P
left join (
    select V.idpost, count(V.pseudo) as rank
    from admin.Vote V
    where V.value = -1
    group by V.idpost
) V
on P.idpost = V.idpost
order by rank desc;

-- Bonus : Quels sont les utilisateurs qui ont voté pour tous les posts
select pseudo
from admin.Vote
group by pseudo
having count(idpost) = (select count(*) from admin.Post);
```

## hashtag.sql

```
-- R15 : Quels utilisateurs ont utilisé les hashtags en tendance
select pseudo
from admin.Post
where date_post >= SYSDATE-7
and idpost in (
    select idpost
    from admin.HasHashtag
    where hashtag in (
        select hashtag
        from admin.Tendance
    )
)
order by date_post desc;

-- R16 : Quelle est la proportion de hashtags en tendance utilisés par [TARGET_USER] ?
create or replace function get_proportion_hashtag(TARGET_USER in varchar2) return number as
    total_hashtags number(6);
    total_tendance number(6);
begin
    select count(*) into total_hashtags
    from admin.Post
    where date_post >= SYSDATE-7
    and pseudo = TARGET_USER
    and idpost in (
        select idpost
        from admin.HasHashtag
    );

    select count(*) into total_tendance
    from admin.Post
    where date_post >= SYSDATE-7
    and pseudo = TARGET_USER
    and idpost in (
        select idpost
        from admin.HasHashtag
        where hashtag in (
            select hashtag
            from admin.Tendance
        )
    );

    if total_hashtags < 1 then
        return 0;
    else
        return (total_tendance*100)/total_hashtags;
    end if;
end;
/

-- R17 : Quel sont les hashtags les plus fréquemment postés avec le hashtag [a] ?
create or replace function max_frequency_hashtag(HT in varchar)
return number as
    RESULT number(6);
begin
    select count(*) into RESULT
    from admin.HasHashtag h1, admin.HasHashtag h2
    where h1.idpost = h2.idpost
```

```

and h1.hashtag = HT
and h2.hashtag != HT
group by h2.hashtag;

return RESULT;
end;
/

select h2.hashtag, count(*) as occurrence
from admin.HasHashtag h1, admin.HasHashtag h2
where h1.idpost = h2.idpost
and h1.hashtag = 'genant'
and h2.hashtag != 'genant'
group by h2.hashtag
having occurrence = admin.max_frequency_hashtag('genant')
order by occurrence desc;

-- R18 : Quel est le jour durant lequel un hashtag [HASHTAG] a été le plus posté ?
create or replace function get_hashtag_day(HASHTAG in varchar2) return date as
DATE_RESULT date := SYSDATE;
begin
select trunc(P.date_post) into DATE_RESULT
from admin.Post P, admin.HasHashtag HH
where HH.idpost = P.idpost and HH.hashtag = HASHTAG
group by trunc(P.date_post)
order by count(*) desc
fetch first 1 rows only;

return DATE_RESULT;
end;
/

```

## message\_thread.sql

```

-- R26 : Quelles sont mes dernières discussions privées ?
select distinct pseudo
from(
select a.pseudo as pseudo, a.date_send
from (
select recipient as pseudo, date_send
from admin.MyMessages
where sender = lower(user)
union
select sender as pseudo, date_send
from admin.MyMessages
where recipient = lower(user)
) a
order by a.date_send
);

-- R27 : Quelle est la proportion de messages envoyés/reçus entre [moi] et l'utilisateur [TARGET_USER] ?
create or replace function get_proportion_message(TARGET_USER in varchar2)
return number as
total_messages number(6);
total_send number(6);
begin
select count(*) into total_messages
from Receive R, PrivateMessage PM
where R.idpm = PM.idpm
and (
(R.pseudo = lower(user) and PM.sender = TARGET_USER)
or (R.pseudo = TARGET_USER and PM.sender = lower(user))
)
group by R.idpm;

select count(*) into total_send
from Receive R, PrivateMessage PM
where R.idpm = PM.idpm
and R.pseudo = TARGET_USER and PM.sender = lower(user)
group by R.idpm;

if total_messages < 1 then
return 0;
else
return (total_send*100)/total_messages;
end if;
end;
/

create or replace function new_id_private_message return number AS
RESULT number(6);
begin
select NVL(max(idpm)+1, 0) into RESULT
from PrivateMessage;

return RESULT;
end;
/

create or replace procedure send_message(msg IN varchar, recipients_csv IN varchar) as
new_id number(6) := new_id_private_message;
field_index number(6) := 0;
current varchar(1) := '';
buffer varchar(64) := '';

begin

insert into PrivateMessage values (new_id, msg, current_date, lower(user));

-- Pour chaque champ du CSV, on insert dans Receive.

-- On itère sur chaque caractère du CSV.
for j in 1..length(recipients_csv) loop

current := substr(recipients_csv, j, 1);

-- Fin d'un champ
if current = ',' then
dbms_output.put_line('new receive : {'||new_id||','||buffer||'}');

insert into Receive values (new_id, buffer);
buffer := '';
field_index := field_index + 1;
else
buffer := buffer || current;
end if;

end loop;

dbms_output.put_line('buffer : '||buffer);
-- On envoie le dernier champ si le CSV de se finit pas par ','
if length(buffer) > 0 then
dbms_output.put_line('new receive : {'||new_id||','||buffer||'}');
insert into Receive values (new_id, buffer);
end if;

end;
/

```

## draft.sql

```
-- R24 : Quel est le brouillon le plus récent que j'ai rédigé ?
select message
from admin.MyDraft
fetch first 1 rows only;

-- R25 : Quel est le draft (brouillon) le plus long que j'ai rédigé ?
select message
from admin.MyDraft
where length(message) = (select max(length(message)) from admin.MyDraft);
```

activities.sql

```
-- Renvoie 1 si le dernier post de l'utilisateur actuel date
-- d'au moins deux secondes, 0 sinon.
create or replace function is_post cooldown_up return boolean as
    max_date date := current_date;
    delay number := 0.0;
    post_count number := 0;
begin

    -- S'il n'y a aucun post, il n'y a pas de cooldown.
    select
        count(idpost) into post_count
    from Post;

    if post_count = 0 then
        return TRUE;
    end if;

    select
        max(date_post) into max_date
    from
        Post
    where
        upper(pseudo) = user;

    delay := current_date - max_date;
    -- Conversion en secondes
    delay := delay * 24 * 3600;

    if delay > 2.0 then
        return TRUE;
    else
        return FALSE;
    end if;
end;
/

create or replace procedure add_hashtag(hashtag IN varchar, post IN number) as
    occurences number := 0;
begin
    select
        count(content) into occurences
    from Hashtag where content = hashtag;

    if occurences = 0 then
        insert into Hashtag values (hashtag);
    end if;

    insert into HasHashtag values (post, hashtag);
end;
/

-- Insère tous les mots précédés par un '#' dans la table
-- Hashtag.
create or replace procedure parse_hashtags(post IN number, msg IN varchar) as
    parser_state number(1) := 0;
    buffer varchar(140) := '';
    c varchar(1) := '_';
begin

    -- Parsing:
    -- - Etat 0: Recherche du caractère '#'
    -- - Etat 1: Récupération du hashtag dans buffer

    if length(msg) > 1 then
        for i in 1..length(msg) loop
            c := substr(msg, i, 1);
            if parser_state = 0 and c = '#' then
                parser_state := 1;
                buffer := '';
            else
                if parser_state = 1 and (c = ' ' or i = length(msg)-1) then
                    add_hashtag(buffer, post);
                    buffer := '';
                    parser_state := 0;
                else
                    buffer := buffer || c;
                end if;
            end if;
        end loop;
    end if;
end;
/

create or replace function new_idpost return number AS
    RESULT number(6);
begin
    select NVL(max(idpost)+1, 0) into RESULT
    from Post;

    return RESULT;
end;
/

create or replace function new_idsurvey return number AS
    RESULT number(6);
begin
    select NVL(max(idsurvey)+1, 0) into RESULT
    from Survey;

    return RESULT;
end;
/

create or replace function new_idoption return number AS
    RESULT number(6);
begin
    select NVL(max(idoption)+1, 0) into RESULT
    from Options;

    return RESULT;
end;
/

-- Ajout de la location d'un post
create or replace procedure update_location(room in varchar, buiding in varchar) as
begin
    update Post set room = room, building = building
    where pseudo = lower(user);
end;
/
```

```
-- Seul et unique moyen d'ajouter des posts dans la base de donnée
-- pour l'utilisateur lambda.
create or replace procedure add_post(msg IN varchar, room IN varchar, building IN varchar) as
id varchar(32) := 'none';
begin
    if is_post_cooldown_up = FALSE then
        raise_application_error(-20589, 'Please wait at least 2 seconds before posting again.');
```

else

insert into Post values (new\_idpost, msg, current\_date, room, building, lower(user));

end if;

end;

/

-- Permet à l'utilisateur de modifier l'attribut **validate** de l'un de ses brouillons (draft)

create or replace procedure validate\_draft(id in number, state in boolean) as

begin

update Draft set state = state where iddraft = id;

end;

/

-- **Permet** à l'utilisateur de signaler un post

create or replace procedure add\_signal(TARGET\_USER in varchar, ID\_POST in number) as

begin

insert into Signal values(TARGET\_USER, ID\_POST);

end;

/

-- Permet d'ajouter un nouveau vote

create or replace procedure add\_vote(ID\_POST in number, IS\_LIKE in boolean) as

begin

if IS\_LIKE = TRUE then

insert into Vote values(lower(user),ID\_POST,1);

else

insert into Vote values(lower(user),ID\_POST,-1);

end if;

end;

/

users.sql

```
-- REQUÊTES UTILISATEURS

-- 1 - Quelle est la liste des hashtags utilisés par [TARGET_USER] ?
select distinct HH.hashtag
from admin.HasHashtag HH, admin.Post P
where HH.idpost = P.idpost
and P.pseudo = 'lulu';

-- 2 - Quelle est la moyenne des votes des posts de [TARGET_USER] ?
create or replace function get_average_rank_post(TARGET_USER in varchar2)
return number as
RESULT number(7) := 0;
begin
    select avg(V.value) into RESULT
    from Vote V, Post P
    where V.idpost = P.idpost
    and P.pseudo = TARGET_USER;

    return RESULT;
end;
/

-- 3 - Est-ce que [pseudo] est suivi par au moins un des utilisateurs que je suis ?
create or replace function get_linked_user(TARGET_USER in varchar2)
return boolean as
RESULT number(6);
begin
    select count(*) into RESULT
    from admin.Follow F1, admin.Follow F2
    where F1.follower = F2.pseudo
    and F1.pseudo = TARGET_USER
    and F2.follower = lower(user);

    return RESULT > 0;
end;
/

-- 4 - Quels sont les utilisateurs que je suis et qui me suivent ?
SELECT F1.follower AS mutual_follow
FROM admin.Follow F1, admin.Follow F2
WHERE F1.follower = F2.pseudo
AND F1.pseudo = lower(user) AND F2.follower = lower(user);

-- 5 - Quels sont les utilisateurs qui suivent [pseudo] ET qui sont suivis par [pseudo] ?
SELECT F1.follower AS mutual_follow
FROM admin.Follow F1
JOIN admin.Follow F2 ON F1.follower = F2.pseudo
WHERE F1.pseudo = 'jojo' AND F2.follower = 'lulu';

-- 6 - Quels sont les utilisateurs que je suis mais qui ne me suivent pas ?
SELECT F1.follower AS not_following_back
FROM admin.Follow F1
LEFT JOIN admin.Follow F2 ON F1.follower = F2.pseudo AND F2.follower = lower(user)
WHERE F1.pseudo = lower(user) AND F2.pseudo IS NULL;

-- 7 - Quel est l'utilisateur qui approuve/désapprouve le plus de mes posts ?
select V.pseudo, sum(V.value) as upvotes
from admin.Vote V, admin.Post P
where V.idpost = P.idpost
and V.value > 0 and P.pseudo = lower(user)
group by V.pseudo
having upvotes > 0
order by upvotes desc;

select V.pseudo, sum(V.value) as downvotes
from admin.Vote V, admin.Post P
where V.idpost = P.idpost
and V.value < 0 and P.pseudo = lower(user)
group by V.pseudo
having downvotes > 0
order by downvotes desc;
```

survey.sql

```
-- Procedure pour ajouter un nouveau Survey
create or replace procedure add_survey(QUESTION in varchar, ID_POST in number) as
begin
    insert into Survey values(new_idsurvey, QUESTION, ID_POST);
end;
/

-- Procedure pour ajouter une nouvelle Option à un Survey
create or replace procedure add_option(CONTENT in varchar, ID_SURVEY in number) as
begin
    insert into Options values(new_idoption, CONTENT, ID_SURVEY);
end;
/

-- Procedure pour répondre a un Survey
create or replace procedure add_answer(ID_OPTION in number) as
begin
```

```
insert into Answer values(lower(user), ID_OPTION);
end;
/

-- R19 : Quels sont les sondages contenant [mot] dans sa question ?
select *
from admin.Survey
where REGEXP_LIKE(question, 'genant', 'i') = TRUE;

-- R20 : Quels sont les sondages contenant [mot] dans ces options ?
-- Procedure instable
select *
from admin.Survey
where idsurvey in (
    select idsurvey
    from admin.Options
    where REGEXP_LIKE(content, 'Oui', 'i') = TRUE
);

-- R21 : Quel est le pourcentage d'utilisateurs ayant choisi cette [option] à cette [question] ?
create or replace function survey_result(TARGET_OPTION in varchar2, TARGET_SURVEY in number)
return number as
    VOTED number(3);
    TOTAL_VOTERS number(7);
begin
    select count(*) into VOTED
    from Options O, Survey S
    where O.idsurvey = S.idsurvey
    and O.content = TARGET_OPTION
    and S.idsurvey = TARGET_SURVEY
    group by O.idoption;

    select count(*) into TOTAL_VOTERS
    from Options O, Survey S
    where O.idsurvey = S.idsurvey
    and S.idsurvey = TARGET_SURVEY;

    return VOTED/TOTAL_VOTERS;
end;
/

-- R22 : Quels sont les sondages contenant le plus de votants ?
select S.idsurvey, S.question, S.idpost, NVL(RES.rank, 0) as rank
from admin.Survey S
left join (
    select O.idsurvey as id, count(*) as rank
    from admin.Answer A
    left join admin.Options O on A.idoption = O.idoption
    group by O.idsurvey
) RES
on S.idsurvey = RES.id
order by rank desc;

-- R23 : Quels sont les sondages contenant [N] options ?
select *
from admin.Survey
where idsurvey in (
    select idsurvey
    from admin.Options
    group by idsurvey
    having count(distinct idoption) = 2
);
```

admin

admin\_procedures.sql

```
create or replace function mail_unicity(new_mail in varchar) return number as
    result number(1) := 0;
begin
    select count(*) into result
    from Users
    where mail = new_mail;
    if result > 0 then
        return 1;
    else
        return 0;
    end if;
end;
/

-- Procédure permettant l'ajout d'un nouveau post
create or replace procedure add_user(pseudo IN varchar, mail IN varchar, password in VARCHAR) as
begin
    if mail_unicity(mail) = 0 then
        insert into Users values (pseudo, null, null, mail, 'unknown', null, null, null);
        execute immediate 'create user ' || pseudo || ' identified by ' || password;
        execute immediate 'grant client to ' || pseudo;
    else
        RAISE_APPLICATION_ERROR(-20589, 'The adress mail : ' || mail || ' is already used.');
```

D/ Vues et droits

my\_messages.sql

```
create or replace view MyMessages as select
    pm.sender as sender, r.pseudo as recipient, pm.message as message,
    pm.date_send as date_send
from
    PrivateMessage pm, Receive r
where
    pm.idpm = r.idpm and
    (pm.sender = lower(user) or r.pseudo = lower(user));

grant select, update, delete on MyMessages to client, moderator;
```

my\_draft.sql

```
-- Procédure créant ou remplaçant la vue MyDraft
-- Vue modélisant les brouillons (drafts) de l'utilisateur

create or replace view MyDraft as
select *
from Draft
where pseudo = lower(user)
order by iddraft desc;

grant select, update, delete on MyDraft to client, moderator;
```

my\_data.sql

```
create or replace view MyData as
select *
from Users
where pseudo = lower(user);
```

```
grant select, update on MyData to client, moderator;
```

grades.sql

```
-- Procédure créant ou remplaçant la vue Influencer
-- Vue modélisant les utilisateurs faisant parti du N%
-- des utilisateurs en fonction de leur rank

-- grant select on Goat to client, moderator;

create or replace function get_user_count return number as
n number := 0;
begin
select
count(pseudo) into n
from
Rank;

return n;
end;
/

create or replace view Goat as select
pseudo, rank
from
Rank
where
rownum <= 0.1 * get_user_count;

grant select on Goat to client, moderator;

create or replace view Influencer as select
pseudo, rank
from
Rank
where
rownum > 0.1 * get_user_count and
rownum <= 0.5 * get_user_count;

grant select on Influencer to client, moderator;

create or replace view Nobody as select
pseudo, rank
from
Rank
where
rownum > 0.5 * get_user_count;

grant select on Nobody to client, moderator;
```

user\_ranks.sql

```
-- Procédure créant ou remplaçant la vue Rank
-- Vue modélisant le rank de tous les utilisateurs

create or replace view Rank as
select Post.pseudo as pseudo, sum(Vote.value) as rank
from Post, Vote
where Post.idpost = Vote.idpost
group by Post.idpost, Post.pseudo
order by rank desc;

grant select on Rank to client, moderator;
```

urgent\_signal.sql

```
-- Procédure créant ou remplaçant la vue UrgentSignal
-- Vue modélisant les posts signalés plus de 30 fois

create or replace view UrgentSignal as
select idpost
from Signal
group by idpost
having count(*) >= 30;

grant select on UrgentSignal to moderator;
```

top\_user.sql

```
-- Procédure créant ou remplaçant la vue TopUser
-- Vue modélisant le classement des utilisateurs les plus suivis

create or replace view TopUser as
select Users.pseudo, count(*) as nb_followers
from Users left join Follow on Users.pseudo=Follow.pseudo
group by Users.pseudo
order by nb_followers desc;

grant select on TopUser to client, moderator;
```

tendance.sql

```
-- Procédure créant ou remplaçant la vue Tendance
-- Vue modélisant les hashtags (tendance) des 7 derniers jours

create or replace view Tendance as
select HH.hashtag as hashtag, count(HH.idpost) as nb_posts
from HasHashtag HH, Post P
where P.idpost=HH.idpost and P.date_post>=(SYSDATE-7)
group by HH.hashtag
order by nb_posts desc
fetch first 10 rows only;

grant select on Tendance to client, moderator;
```

sanctions.sql

```
-- Procédure créant ou remplaçant la vue Sanctions
-- Vue modélisant le temps restant avant la fin du bannissement des utilisateurs bannis

create or replace view Sanctions as
select pseudo, ban_end - SYSDATE as time_left, ban_reason
from Users
where SYSDATE < ban_end;

grant select on Sanctions to client, moderator;
```

rank\_post.sql

```
-- Procédure créant ou remplaçant la vue RankPost
-- Vue modélisant les statistiques d'un post donné

create or replace view RankPost as
select sum(value) as rank,
sum(case when Vote.value > 0 then 0 else 1 end) as downvotes,
sum(case when Vote.value > 0 then 1 else 0 end) as upvotes
```

```
from Vote
group by idpost;

grant select on RankPost to client, moderator;
```

feed.sql

```
-- Vue modélisant le fil d'actualité de l'utilisateur

create or replace view Feed as
select * from Post
where pseudo in (select pseudo from Follow where follower=lower(user))
order by date_post desc;

grant select on Feed to client, moderator;
```

client\_execute.sql

```
-- Droits d'exécution des Fonctions / Procédures utilisées par le role client :

-- activities :

grant execute on is_post_cooldown_up to client, moderator;
grant execute on add_hashtag to client, moderator;
grant execute on parse_hashtags to client, moderator;
grant execute on new_idpost to client, moderator;
grant execute on new_idsurvey to client, moderator;
grant execute on new_idoption to client, moderator;
grant execute on update_location to client, moderator;
grant execute on add_post to client, moderator;
grant execute on validate_draft to client, moderator;
grant execute on add_vote to client, moderator;

-- hashtag :

grant execute on get_proportion_hashtag to client, moderator;
grant execute on max_frequency_hashtag to client, moderator;
grant execute on get_hashtag_day to client, moderator;

-- message_thread :

grant execute on get_proportion_message to client, moderator;
grant execute on new_id_private_message to client, moderator;
grant execute on send_message to client, moderator;

-- survey :

grant execute on add_survey to client, moderator;
grant execute on add_option to client, moderator;
grant execute on add_answer to client, moderator;
grant execute on survey_result to client, moderator;

-- users :

grant execute on get_average_rank_post to client, moderator;
grant execute on get_linked_user to client, moderator;

-- views/grades :
grant execute on get_user_count to client, moderator;
```

moderator.sql

```
create role moderator;
grant create session to moderator;
grant create view to moderator;

-- Ajouter l'accès aux procédures ici
grant execute on admin.add_user to moderator;

grant select on Post, Survey, Options, Follow, Vote, Hashtag, HasHashtag to moderator;

-- Modérateurs test, normalement les modérateurs doivent
-- être créés par l'admin.
create user mod01 identified by peche;
grant moderator to mod01;
```

client.sql

```
-- /\ Attention ! On ne peut pas donner les droits sur les
-- procédures ici car les utilisateurs sont créés avant
-- les procédures dans l'ordre d'exécution spécifié dans
-- le README.md. Je les ai déplacé à la fin de "rights/client_procedures.sql"

create role client;
grant create session to client;
grant create view to client;

-- Droits de sélection sur certaines tables :
grant select on Post to client, moderator;
grant select on Survey to client, moderator;
grant select on Options to client, moderator;
grant select on Answer to client, moderator;
grant select on Follow to client, moderator;
grant select on Vote to client, moderator;
grant select on Hashtag to client, moderator;
grant select on HasHashtag to client, moderator;

-- Utilisateurs test, normalement les utilisateurs doivent
-- être créés par l'admin.
call add_user('jean', 'jean@jean.fr', 'pasteque');
call add_user('lola', 'lola@lola.fr', 'kiwi');
```

admin.sql

```
-- Administrateur de la BD
-- C'est lui qui crée les tables, les vues, les triggers, etc.

create user admin identified by banane;
grant create session to admin;
grant unlimited tablespace to admin;
grant create table to admin;
grant create procedure to admin;
grant create user to admin;
grant create trigger to admin;
grant create view to admin;
grant grant any role to admin;
```

E/ Intégrité des données

user\_activities.sql

```
-- On empêche les utilisateur de voter pour leurs propres posts
create or replace trigger vote_self before insert on Vote for each row
declare
    POST_PSEUDO varchar2(15);
begin
```



```
select pseudo into POST_PSEUDO
from Post
where idpost = :new.idpost;
if :new.pseudo = POST_PSEUDO then
    RAISE_APPLICATION_ERROR(-20030, '' || :new.pseudo || ' tried to vote his own post');
end if;
end;
/

-- On empêche les utilisateurs de s'envoyer des messages à eux même
create or replace trigger recipient_self before insert on Receive for each row
declare
    SENDER varchar2(15);
    RECIPIENT number(5);
begin
    select sender into SENDER
    from PrivateMessage
    where idpm = :new.idpm;

    if SENDER = :new.pseudo then
        select count(*) into RECIPIENT
        from Receive
        where idpm = :new.idpm
        group by pseudo;

        if RECIPIENT = 0 then
            delete from PrivateMessage where idpm = :new.idpm;
            RAISE_APPLICATION_ERROR(-20030, '' || :new.pseudo || ' tried to send a private message to himself.');
```