Model Class Diagram

diagramme de classe : contient les tables et les donnes qu'on va exploiter .
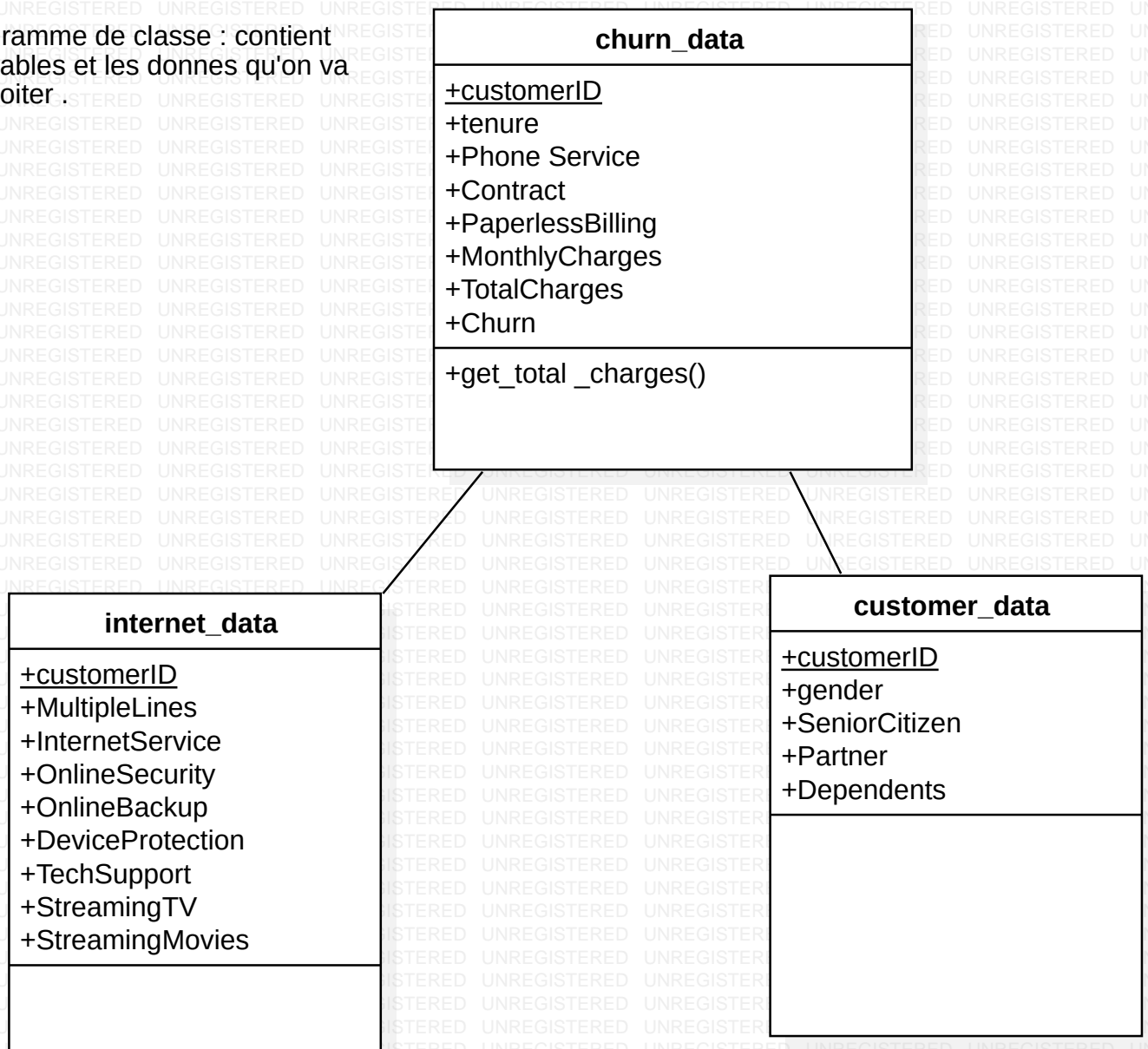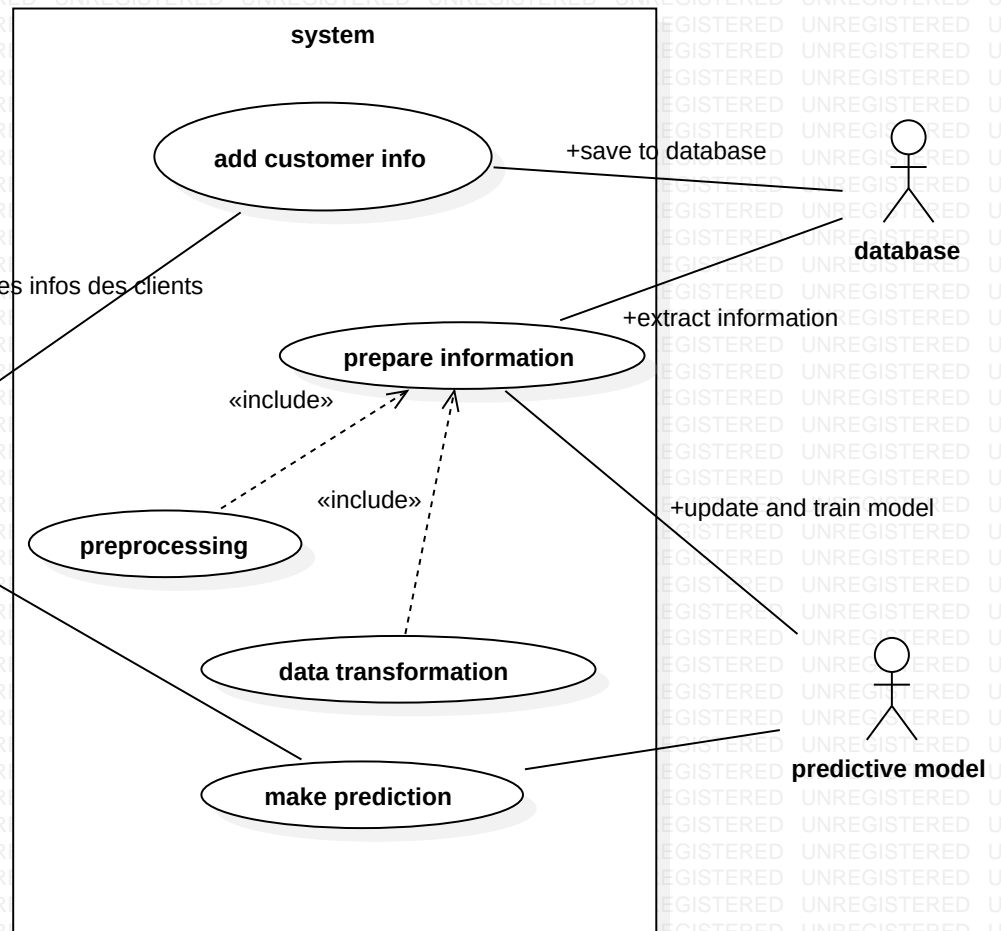
churn_data

+customerID
+tenure
+Phone Service
+Contract
+PaperlessBilling
+MonthlyCharges
+TotalCharges
+Churn

+get_total _charges()

internet_data

+customerID
+MultipleLines
+InternetService
+OnlineSecurity
+OnlineBackup
+DeviceProtection
+TechSupport
+StreamingTV
+StreamingMovies

customer_data

+customerID
+gender
+SeniorCitizen
+Partner
+Dependents

diagramme de cas
d'utilisation général

Model UseCaseDiagram1

system

add customer info

+save to database

database

+ajouter les infos des clients

+extract information

prepare information

«include»

+update and train model

l'utilisateur

preprocessing

«include»

data transformation

predictive model

make prediction

sd l'utilité de ce machine learning

modele predictive	System	Client

1 : Entrer vos donnes

2 : verification

seq OPT

[SI Erreur:]

[alors]

Msg "veuillez entrer des coordonnes valides

3 : envoyer donnés necessaires

seq ALT

[SI]   churn client

[alors]

4 : msg"Churn client"

[sinon]

5 : msg"Encore un client

Model UseCaseDiagram2

diagrame de CU du "preparation des informations"
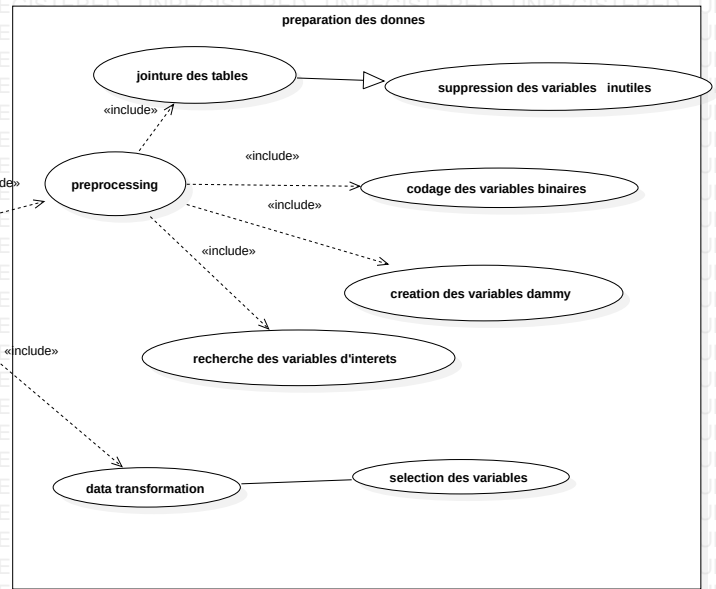
database

prepare information

preparation des donnes

jointure des tables

suppression des variables inutiles

«include»

preprocessing

«include» → **codage des variables binaires**

«include»

«include» → **creation des variables dammy**

«include»

recherche des variables d'interets

«include»

data transformation — **selection des variables**

diagramme CU de " update and train model"

update and train model

update

MODELISATION

«include»

train model

Random forest

arbre de dicision
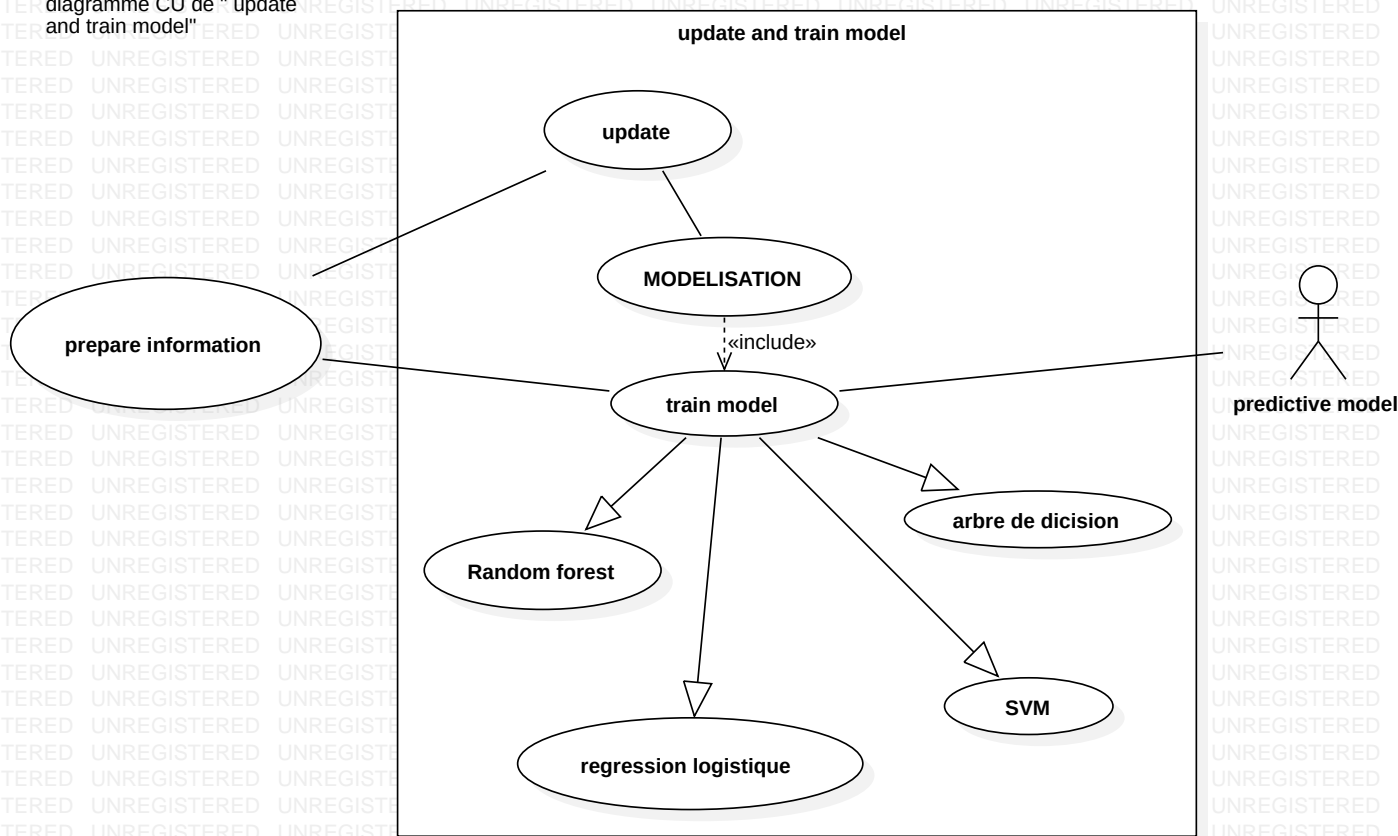
SVM

regression logistique

prepare information

predictive model

Diagramme CU de "make prediction"

make prediction

EVALUATION DES MODELS

l'utilisateur

«extend»

make prediction

predictive model