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SCIENCES DE L'INGENIEUR

Membre de  
HONORIS UNITED UNIVERSITIES



# SOLVENCIA

Étude de solvabilité des clients d'une Banque  
Implémentation de l'Algorithme de Régression Logistique

**Encadrant:** M. EL MIDAOUI Omar

**Made by :** ASKOUR Hamza & HILALI Ahmed

**Jury :** SEMLANE Oumaima  
ZGAOUA Mohammed Amine

**PROJET JAVA**



# PLAN

INTRODUCTION

ANALYSE

CONCEPTION

RÉALISATION

CONCLUSION



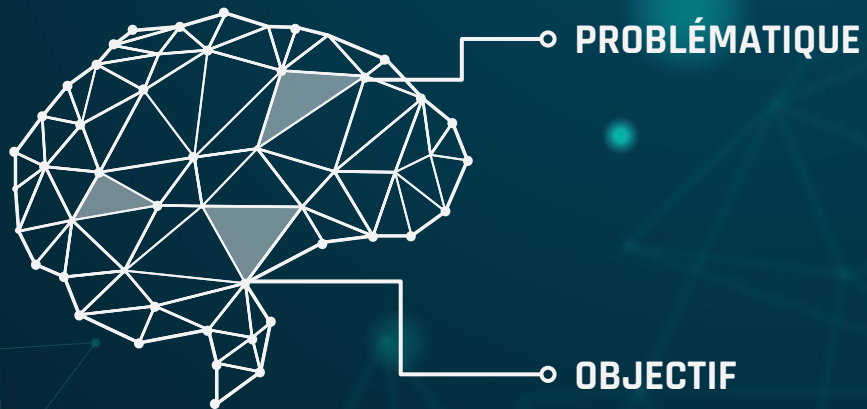
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PROBLÉMATIQUE



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# ANALYSE 02

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Présentation de l'algorithme de régression  
logistique



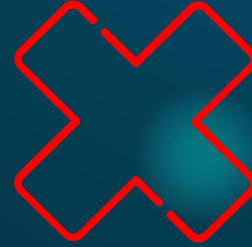


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## FEATURES

## TARGET

✓	✗	✗	✗	✓	✓
✗	✓	✓	✓	✗	✗



FEATURES



MODÈLE

FEATURES



SALAIRE	DÉPENSE	TARGET
12000	9000	✓
⋮	⋮	⋮
9000	8500	✗

$Y = \text{function}(\text{Salaire}, \text{Dépense})$

FEATURES



FORWARD



$Y = \text{function}(\text{Salaire}, \text{Dépense})$

0.5



ERREUR ?

FEATURES

SALAIRE	DÉPENSE	TARGET
12000	9000	✓
⋮	⋮	⋮
9000	8500	✗

FORWARD

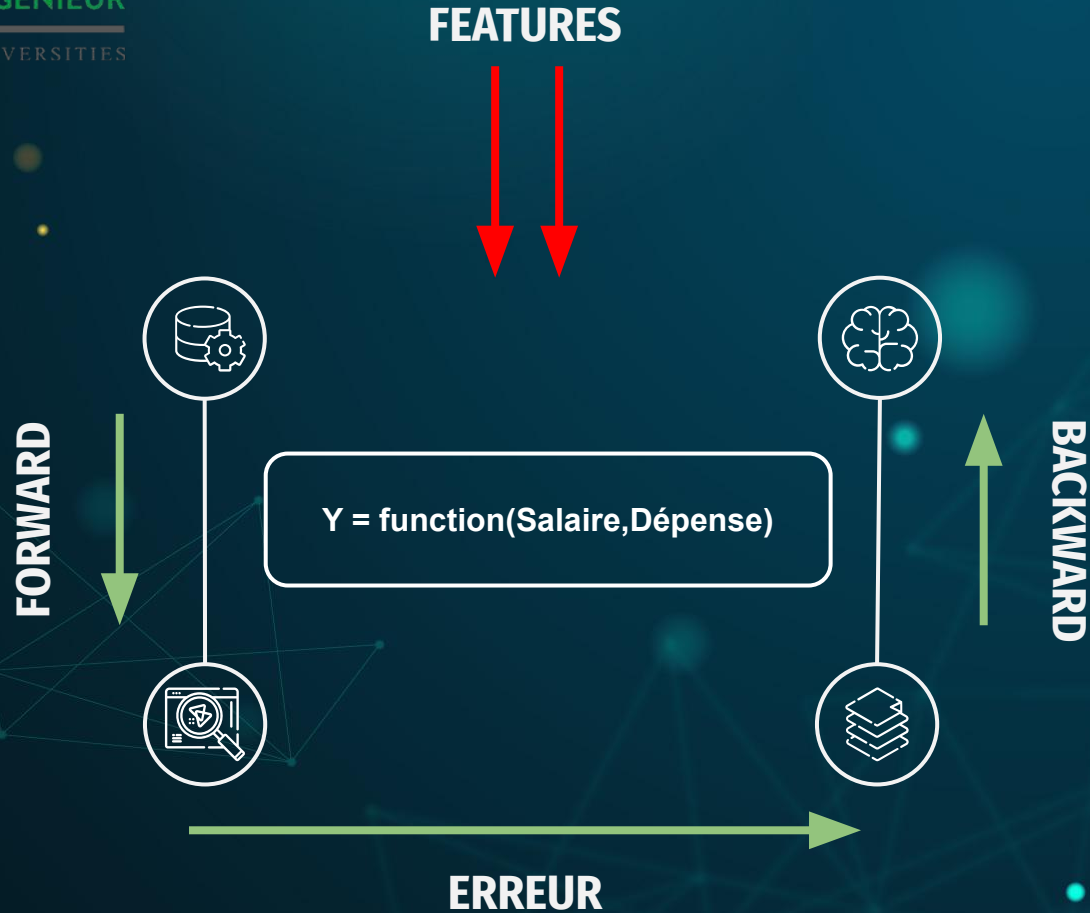


$Y = \text{function}(\text{Salaire}, \text{Dépense})$

0.3



Erreur = 0.7





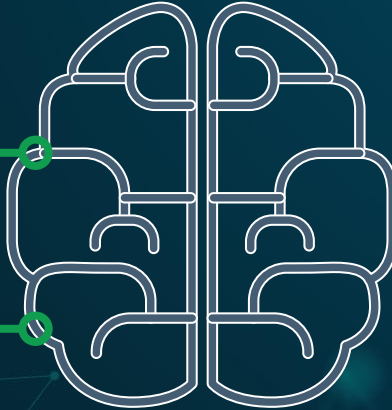


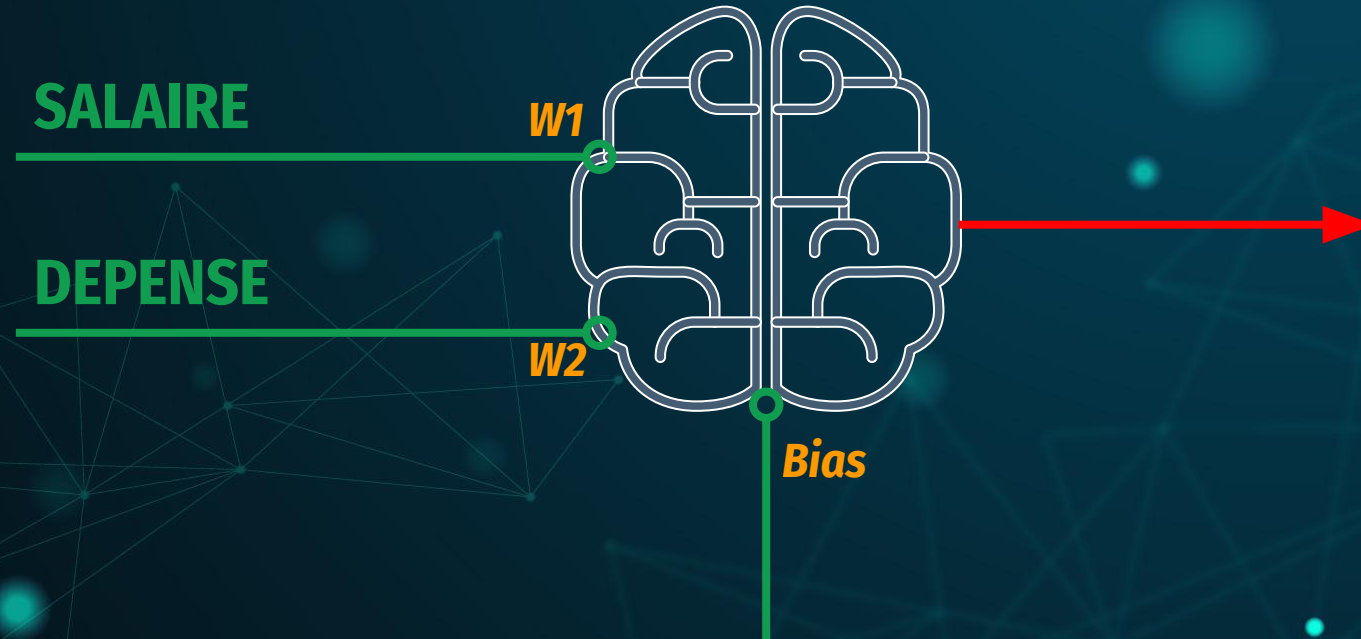
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**SALAIRE**

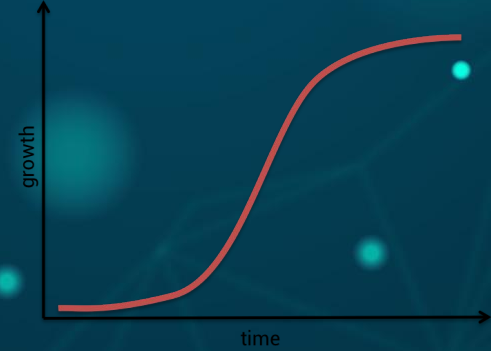
**DEPENSE**





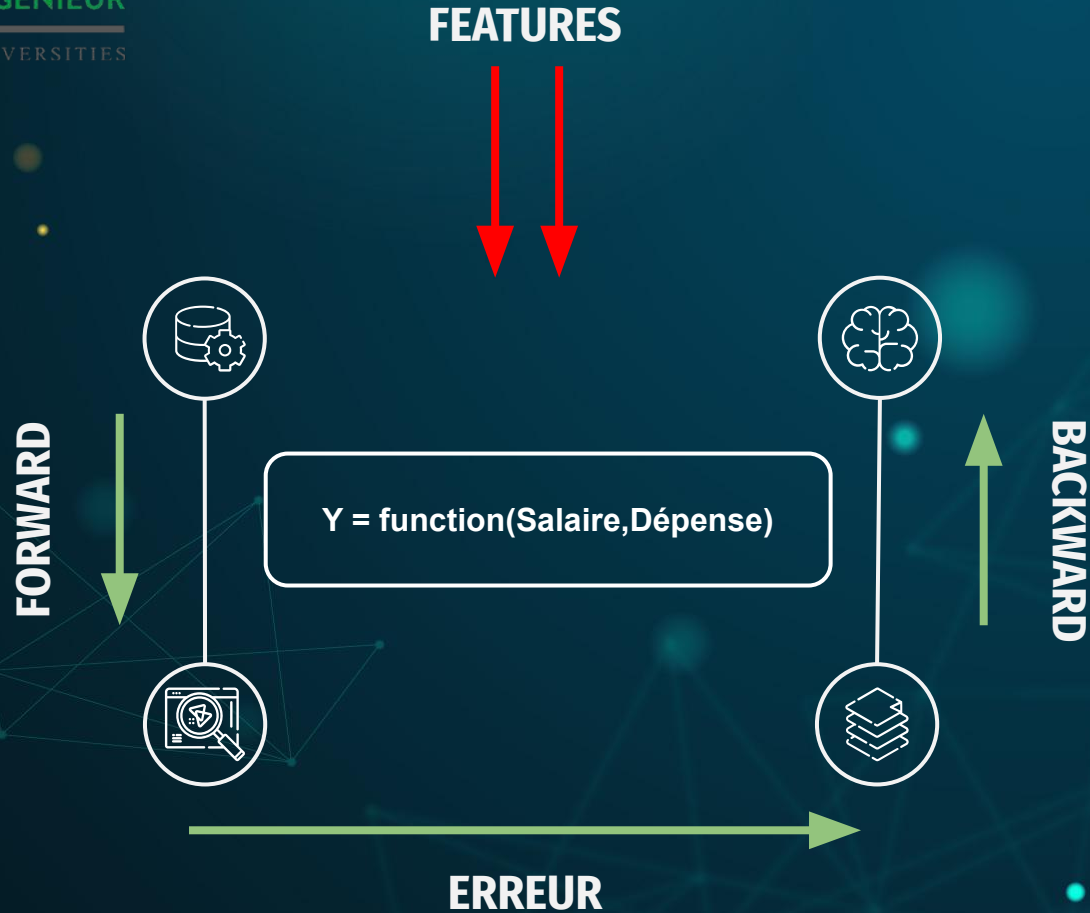
# PRÉACTIVATION

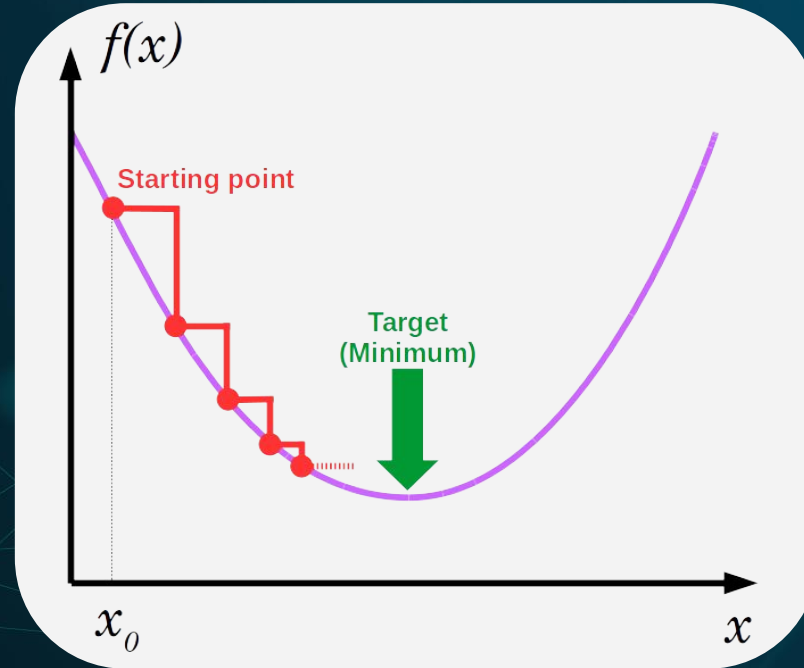
$$Z = \text{Bias} + w_1 \times \text{Salaire} + w_2 \times \text{Depense}$$

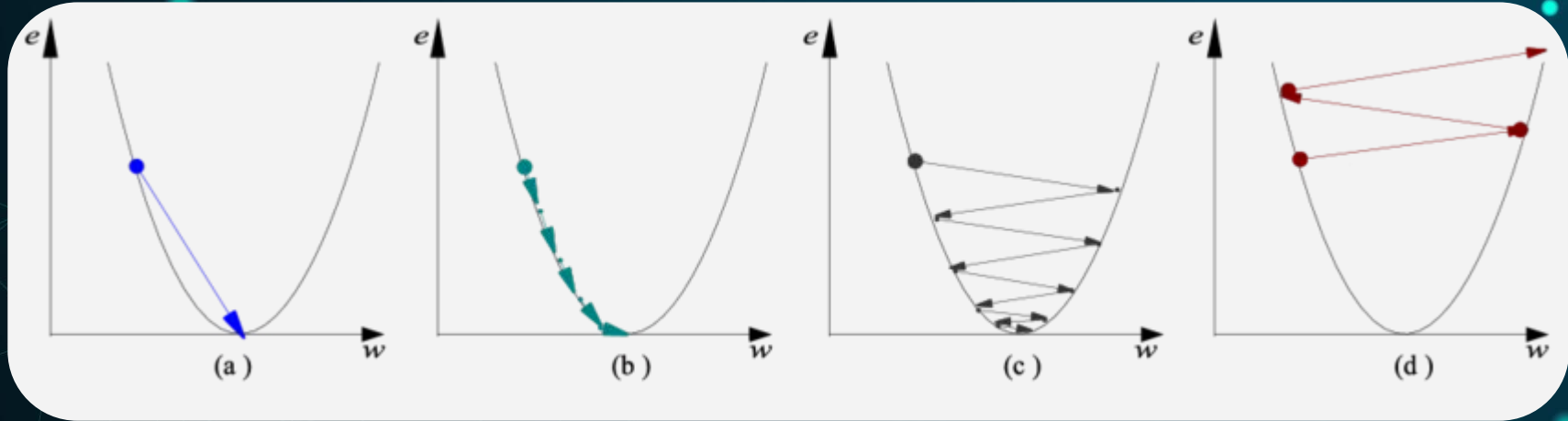


# ACTIVATION

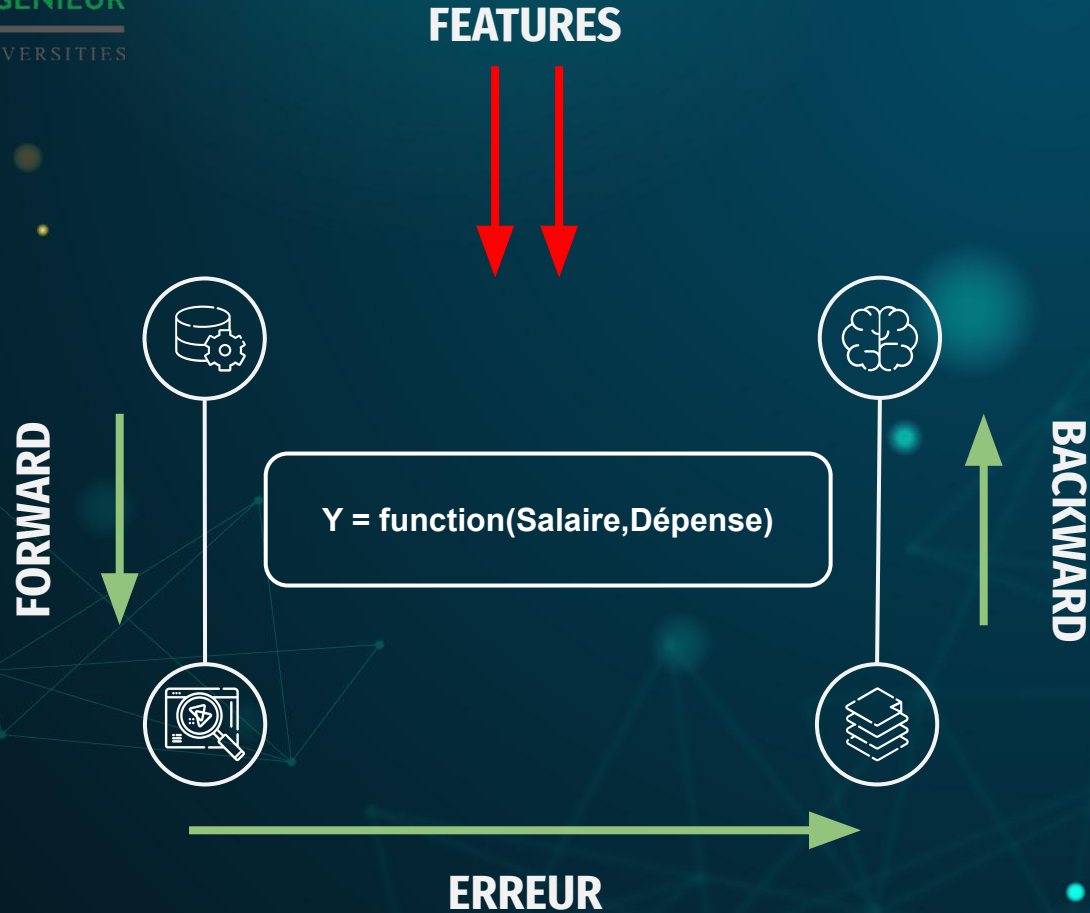
$$Y = \text{Sigmoid} ( Z )$$













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# CONCEPTION 03

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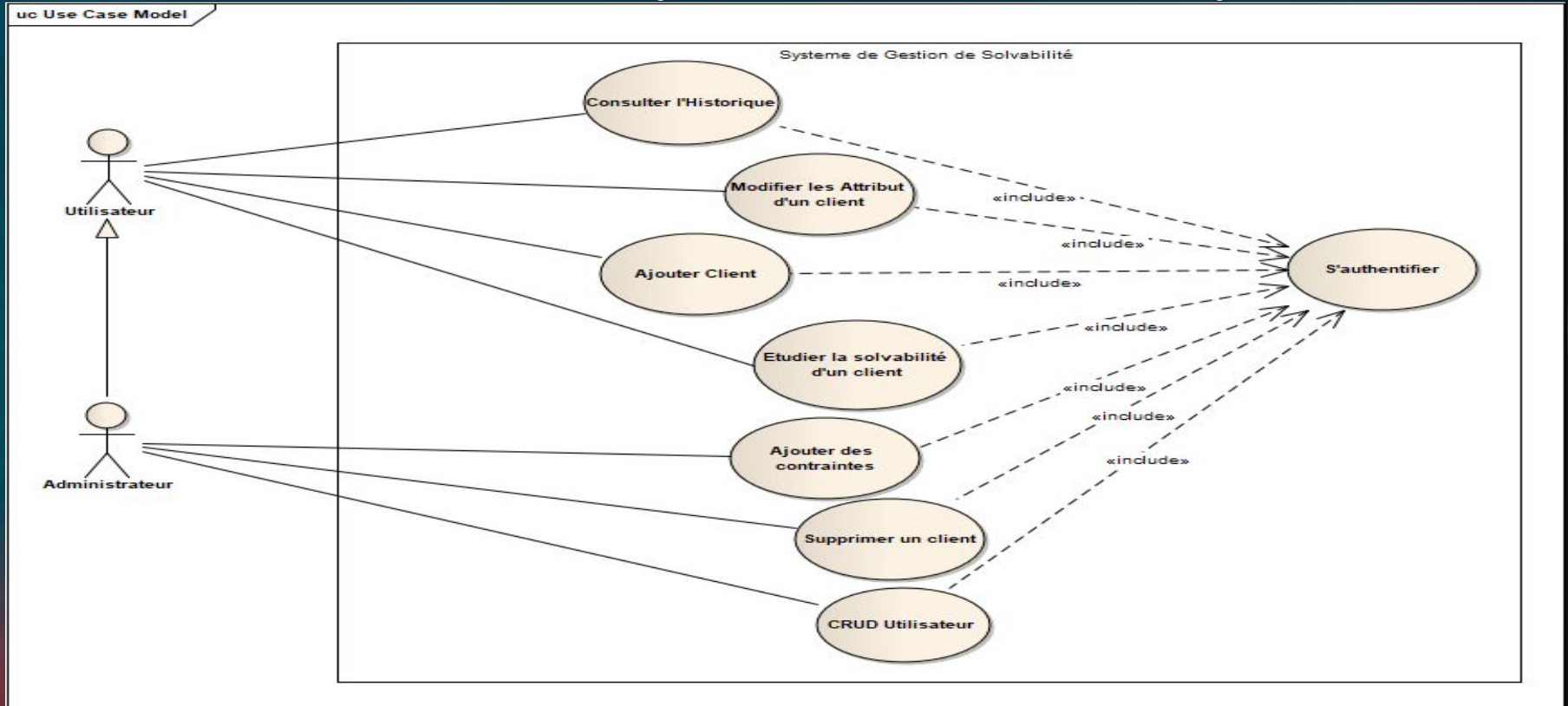
# Acteurs



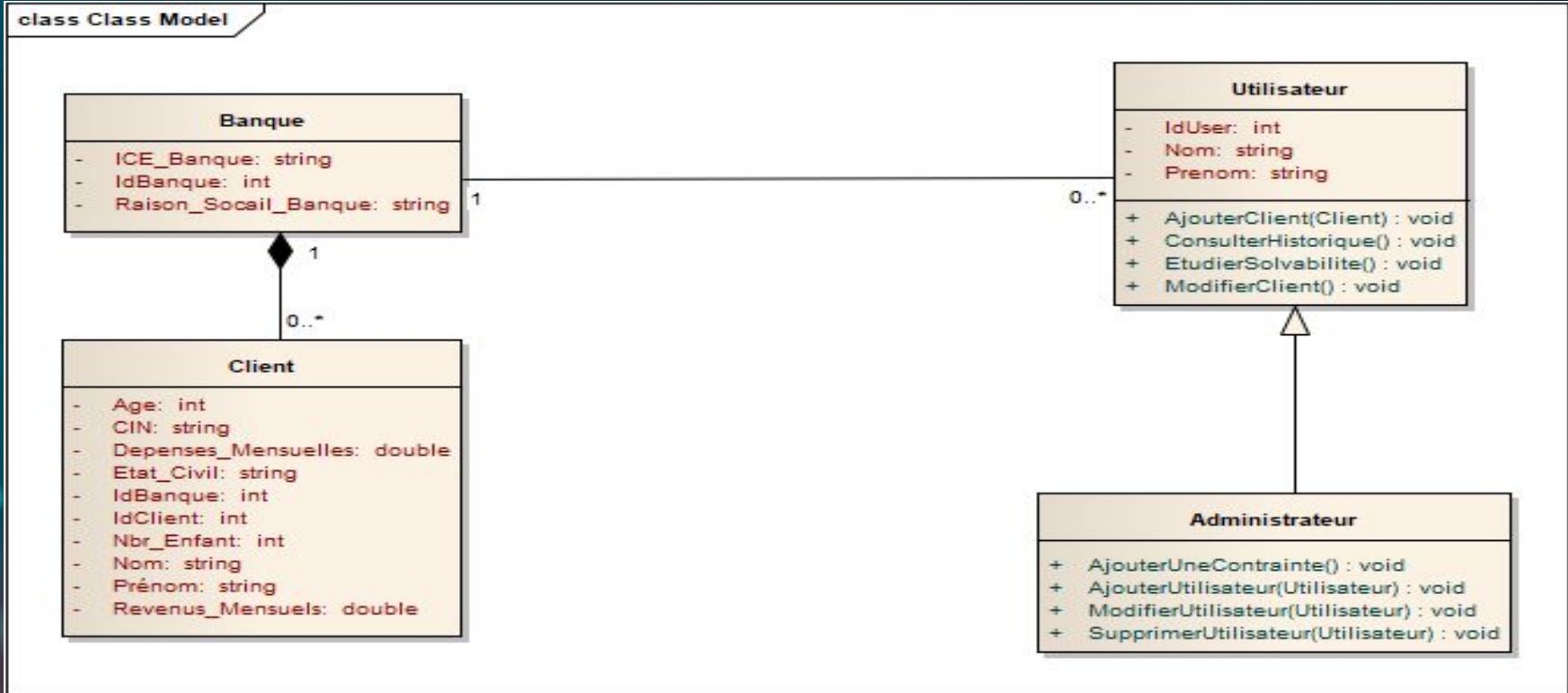
**Utilisateur**



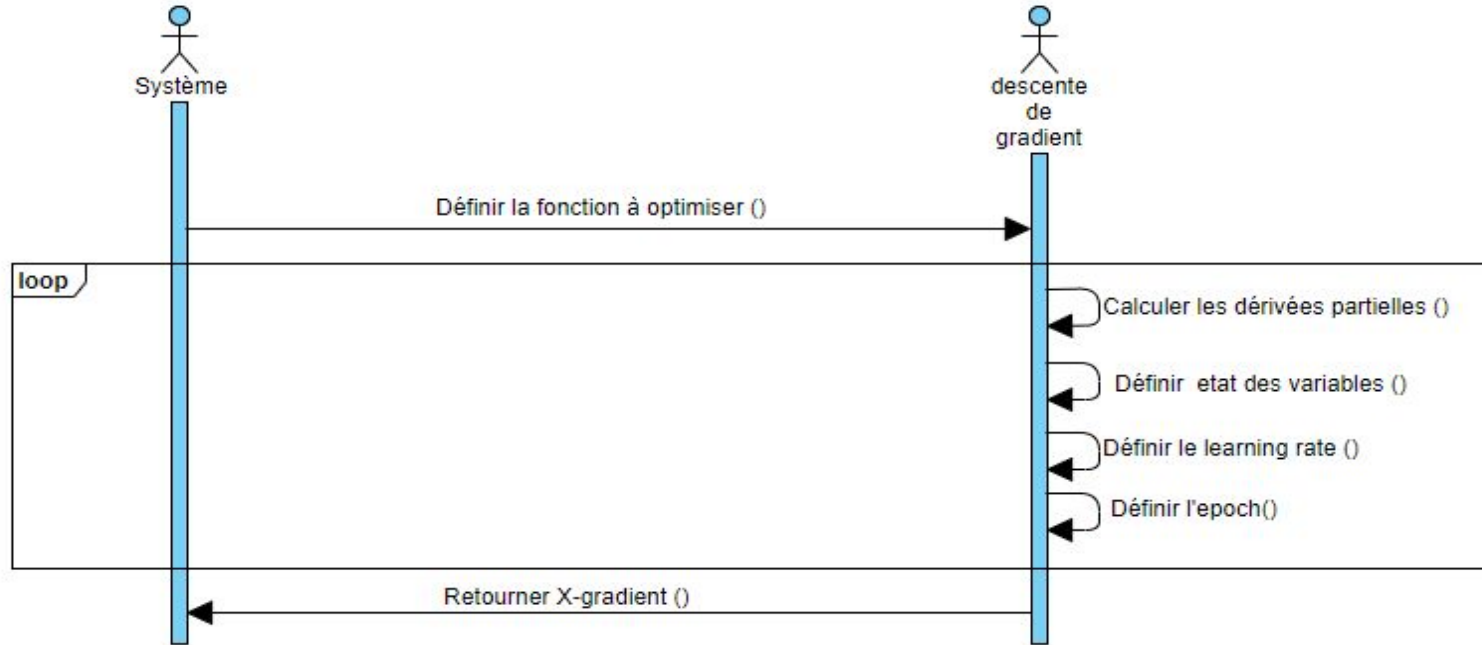
**Administrateur**



# Diagramme de Classe



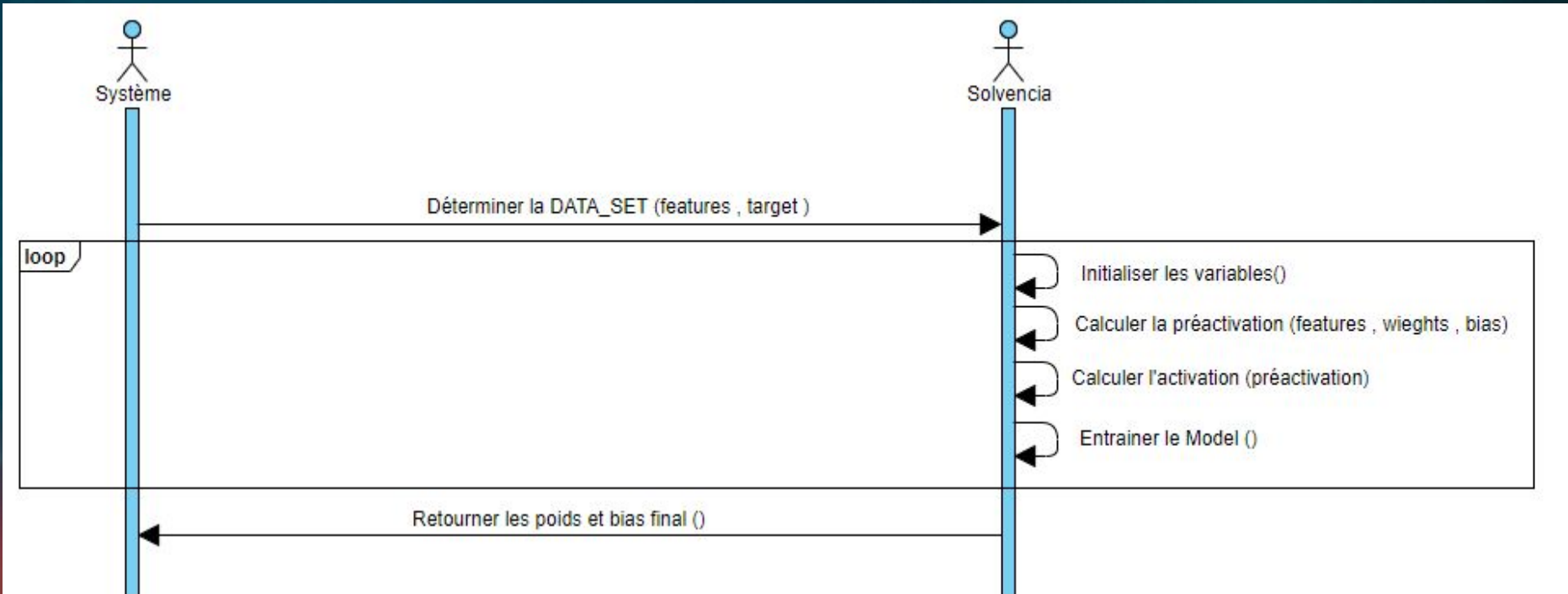
# Diagramme de Séquence : Descente de gradient



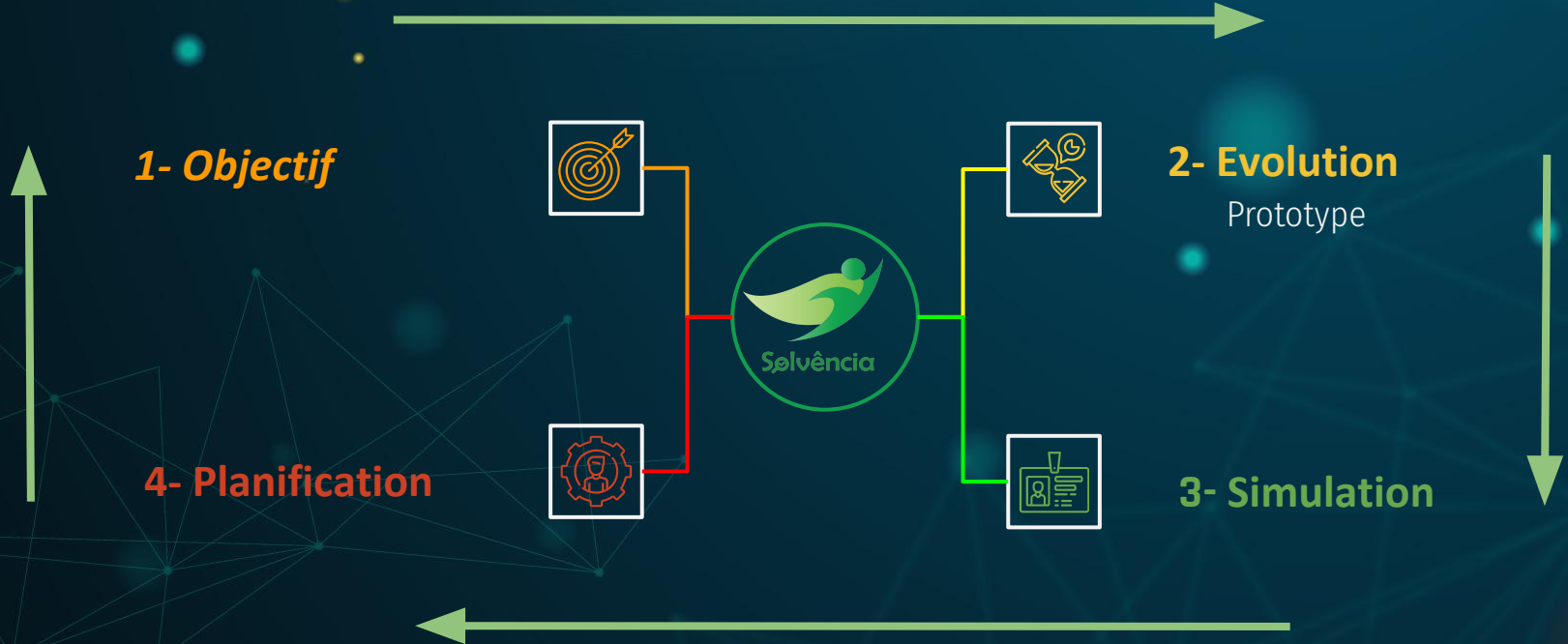


# Diagramme de Séquence :

## Regression Logistique



# METHODE EN SPIRALE





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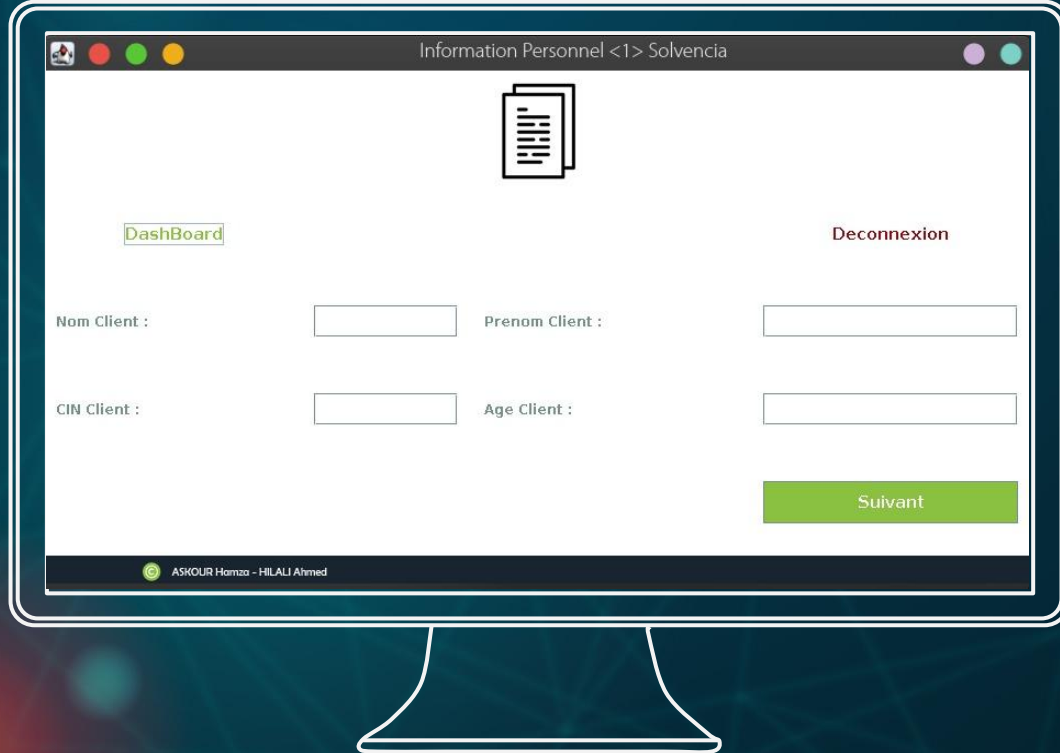
# REALISATION 04

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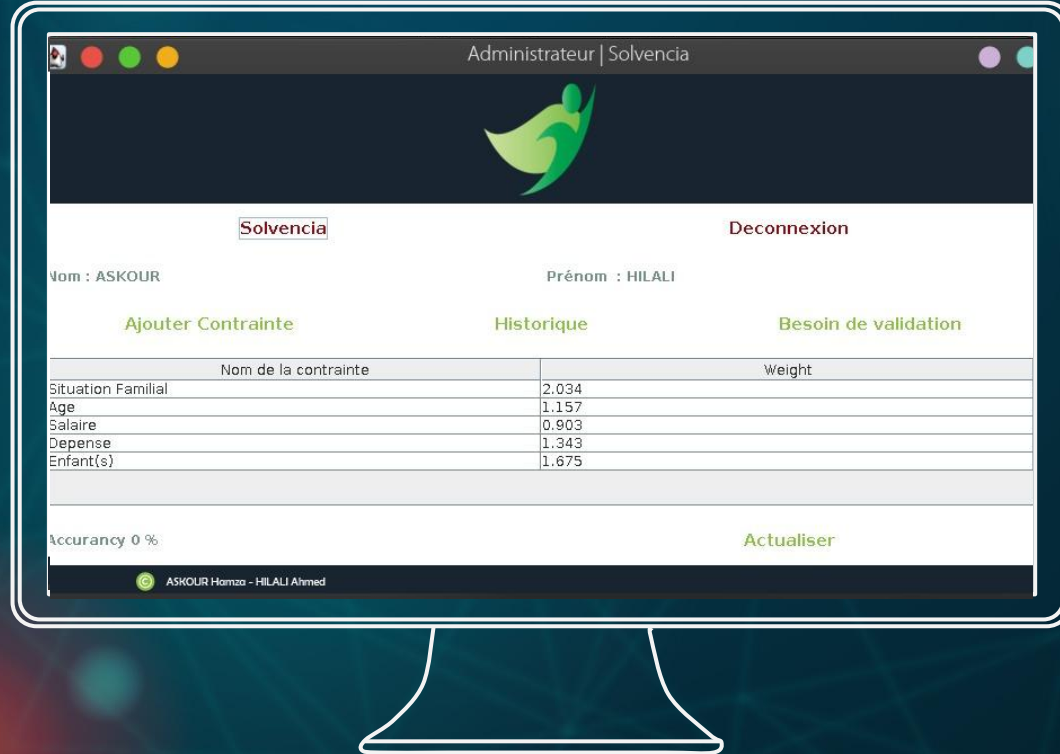
A screenshot of a web application window titled 'Information Personnel <1> Solvencia'. The window has a dark header bar with standard OS window controls. The main content area is white and contains a document icon at the top center. Below it, there is a 'DashBoard' label on the left and a 'Deconnexion' link on the right. The form consists of four input fields arranged in two rows: 'Nom Client' and 'Prenom Client' in the first row, and 'CIN Client' and 'Age Client' in the second row. A green 'Suivant' button is located at the bottom right of the form. The footer of the window displays a copyright notice: '© ASKOUR Hamza - HILALI Ahmed'.

Capture de la page d'insertion des  
données des clients



Capture de la page d'historique





Capture de la page du Dashboard de l'administrateur



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# CONCLUSION 05

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ahmedhi/Solvencia

# MERCI POUR VOTRE ATTENTION



## Solvência