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Hanini

CHAPITRE 1

INTRODUCTION

HANINI is a cutting-edge mobile application designed to simplify the process of discovering and offering a wide range of essential services. Whether looking for plumbing, housekeeping, electrical work, or any other home service, HANINI acts as a comprehensive bridge between customers and service providers. The app serves as a dynamic and easy-to-navigate platform that connects people with trusted service professionals, allowing users to access help quickly, securely, and with just a few taps on their mobile devices.

In today's fast-paced world, the need for on-demand services has grown exponentially. Customers seek convenience, reliability, and quality in the service providers they choose. On the other hand, service providers often struggle to reach a wide audience and manage their service requests effectively. HANINI addresses these challenges by offering a simple, intuitive platform that not only helps users find the right services but also gives service providers the tools they need to showcase their skills and manage their operations efficiently.

The key feature of HANINI lies in its user-friendly interface, which makes it accessible to people with varying levels of technical expertise. Whether a customer is looking for specific help or a service provider wants to expand their reach, HANINI ensures that both sides can easily navigate the app and connect with each other seamlessly. HANINI's goal is to make finding and offering home services as effortless as possible. By leveraging modern technologies and a user-centered design, the app facilitates the connection between service providers and customers, ensuring a seamless and trustworthy service experience. Whether a plumber, cleaner, or handyman is needed, HANINI brings users closer to professional help in a matter of seconds.

What sets HANINI apart from other e-service platforms is the combination of a simple, intuitive user interface with powerful backend systems that ensure smooth communication, secure transactions, and trust-building mechanisms. The app is designed to accommodate both seasoned professionals and users with no technical background, making it accessible to a broad audience. Moreover, the advanced AI verification and rating systems promote

safety and reliability, making HANINI a trustworthy platform for both service providers and customers.

The primary vision behind HANINI is to reduce the complexity involved in finding quality service providers and managing service requests. By offering a streamlined solution to both customers and service providers, HANINI aims to create a thriving community of professionals and users who can rely on the app for all their home service needs. The mission is to ensure that every customer gets the help they need, at the right time, and from a trusted professional, while empowering service providers to grow their businesses and maintain high standards of service quality. In the future, HANINI plans to expand the range of services offered, integrate more advanced AI and machine learning features for service matching, and further enhance the user experience. The platform is committed to continuous improvement based on user feedback and emerging technologies, ensuring it remains at the forefront of the e-services industry.

CHAPITRE 2

PROJECT OVERVIEW

The HANINI app is an innovative, dynamic E-Services platform that simplifies the process of connecting customers with service providers. It offers a wide range of services including plumbing, housekeeping, electrical work, repairs, and more, catering to a broad user base with diverse needs. The application is designed to address the challenges of finding reliable and timely assistance, all while making it easier for service providers to grow their businesses and reach potential clients.

At its core, HANINI provides a user-friendly, intuitive interface built with Flutter for both Android and iOS platforms, ensuring a seamless experience for users across different devices. The app's primary goal is to simplify the service request process, making it easier for customers to post requests and connect with the appropriate service provider in a matter of clicks.

2.1 Key Technologies Used

2.1.1 Frontend (Flutter)

Flutter is used to build the cross-platform user interface for HANINI, enabling smooth navigation, a visually appealing design, and fast performance. Flutter's rich widget library

ensures that the app delivers a native-like experience on both Android and iOS.

2.1.2 Backend (Node.js))

The backend is powered by Node.js, which handles the application's business logic, authentication, and serves as the communication layer between the frontend and the database. Node.js ensures scalability and efficiency, allowing the app to handle large volumes of user requests and manage real-time data interactions

2.1.3 Database (Firebase)

Firebase is used for user authentication and database storage. Firebase Firestore stores user profiles, service requests, provider information, reviews, and transaction histories. It allows for real-time data synchronization and provides a scalable solution for storing and retrieving user data. Firebase Authentication handles secure sign-in and sign-up processes using email/password or third-party logins like Google .

2.2 Integration of AI, Machine Learning (ML), and Deep Learning

2.2.1 AI-Powered Identity Verification

HANINI uses identity card scanning technology to enhance security. Users are required to scan their identity card (e.g., national ID, passport, driver's license) during the registration or login process. The AI model then verifies the authenticity of the ID by extracting key features and comparing them with official records. This added layer of verification ensures that users and service providers are properly authenticated, offering a higher level of security for both parties. As the system is exposed to more identity documents, the deep learning models improve over time, making identity verification faster and more accurate.

2.2.2 Recommendation Systems (Collaborative Filtering + Machine Learning)

HANINI utilizes collaborative filtering in its recommendation system to suggest services to users based on the behavior and preferences of similar users. This means the system learns what other users with similar preferences have liked and recommends those services. Machine Learning (ML) models are used to predict the best service providers for a given customer request. By analyzing previous service interactions, preferences, location data, and other user attributes, the system can suggest service providers who are most likely to fulfill the request effectively.

ABSTRACT

bla bla bla

Keywords : bla, bla, bla, bla.

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LISTE DES ALGORITHMES

INTRODUCTION GÉNÉRALE

pour écrire un chapitre non numéroté on a utilisé * dans la titre chapter* un exemple d'ecrire en gras **bla**

un exemple te texte souligné bla

texte italique *bla*

texte avec taille

bla
bla
bla
bla

bla

liste avec puces :

- bla bla
- ljgjl kjhkjg
- jh ggggggggggg

liste avec numéros

1. bla
2. jjfjfjfjfjfj
3. lkmlkjmlkjlkj

CHAPITRE 3

GÉNÉRALITÉS SUR LES RÉSEAUX, ROUTAGE ET QOS

L'utilisation des réseaux informatiques bla bla bla bla

3.1 Key Technologies Used

3.1.1 Définition

Un réseau informatique peut être défini comme un ensemble d'ordinateurs qui interagissent entre eux, partageant des ressources ou des informations.

3.1.2 Modèles de référence

La conception et la mise en œuvre des réseaux bl abla bla

Modèle de référence OSI

Le modèle de référence OSI a indépendantes illustrées dans le tableau 3.1.

Modèle OSI		Fonctionnalité	Unité de donnée
Couches hautes	7. Application	Applications orientées réseau	Donnée
	6. Présentation	Contrôle de la représentation des données	Donnée
	5. Session	Gestion du dialogue	Donnée
	4. Transport	Transport des paquets	Segment
Couches matérielles	3. Réseau	Routage des paquets	Paquet
	2. Liaison	Transfert des données	Trame
	1. Physique	Media de transmission	Bit

TABLE 3.1 – Couches du modèle de référence OSI

Modèle de référence TCP/IP

C'est un ensemble de protocoles utilisés pour la communication entre différentes machines utilisant bla bla bla
Le tableau 3.2 montre les différentes couches du TCP/IP et leurs équivalentes dans le modèle OSI.

OSI	TCP/IP
7. Application	4. Application
6. Présentation	
5. Session	
4. Transport	3. Transport
3. Réseau	2. Internet
2. Liaison	1. Liaison
1. Physique	

TABLE 3.2 – Couches du modèle de référence TCP/IP

Transmission broadcast

Transmission d'informations entre un émetteur et tous les récepteurs dans un réseau informatique, appelée aussi 'Radiodiffusion'. Généralement, les réseaux utilisent ce mode de transmission pour envoyer des messages de contrôle afin d'assurer un bon fonctionnement du réseau. Les trois modes de transmission sont représentés dans la figure 3.1.

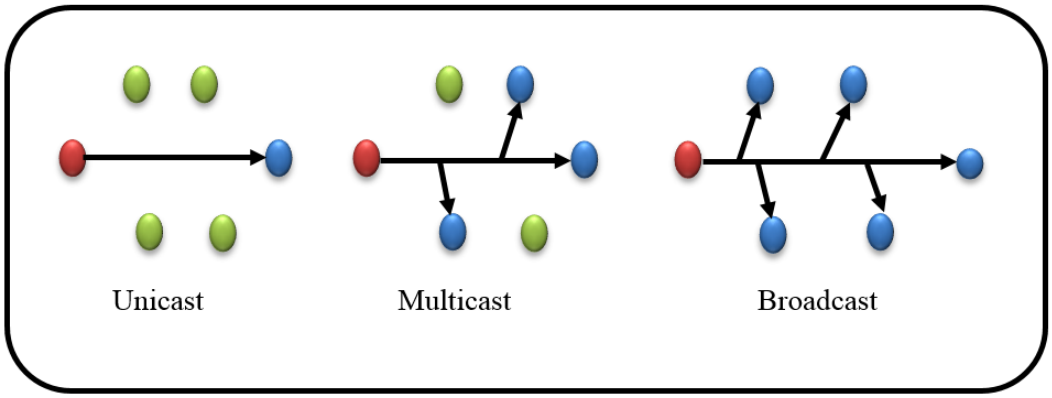

FIGURE 3.1 – Modes de communication

Classification selon l'envergure

L'envergure est le périmètre géographique couvert par le réseau. Il existe plusieurs types illustrés dans le tableau 3.3.

Type de réseau	Envergure
PAN (Personal Area Network)	La portée d'une personne
LAN (Local Area Network)	La portée d'une maison, un bâtiment, une institution
MAN (Metropolitan Area Network)	La portée d'une ville
WAN (Wide Area Network)	La portée d'un pays ou d'un continent

TABLE 3.3 – Classes des réseaux selon l'envergure

Classification selon la topologie

La topologie d'un réseau représente le mode de câblage (arrangement physique) de ses différents périphériques. Il existe généralement 6 topologies : bus, anneau, étoile, étoile étendue, arbre et la topologie maillée. Ses différentes topologies sont illustrées dans la figure 3.2.

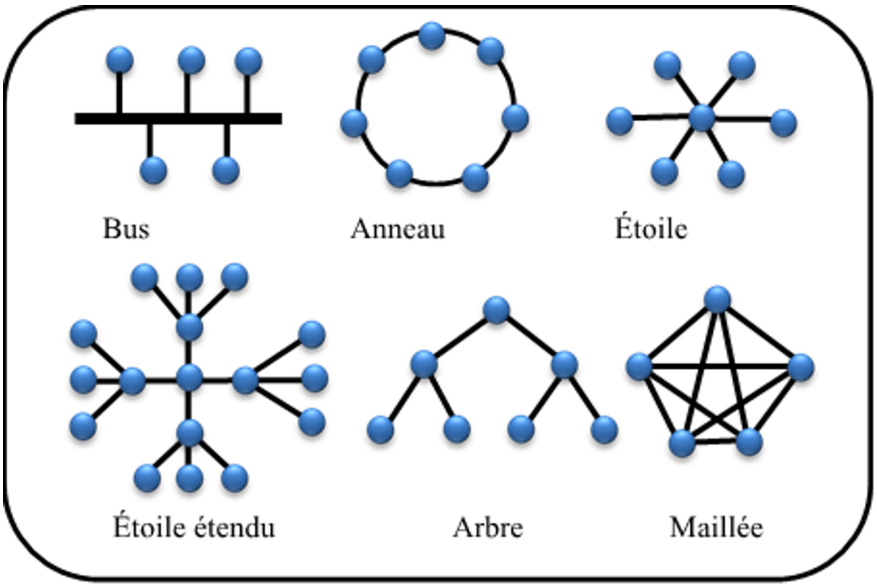

FIGURE 3.2 – Topologies des réseaux

CHAPITRE 4

PROBLÈMES ÉTUDIÉS ET TRAVAUX LIÉS

voici l'ordre des titre après le chapitre :

4.1 sdfsdfsfsdfsdf

4.1.1 qsdfsdsddddddd

ddddddddddd

dddddfffff

sssssssssssddddddd

CHAPITRE 5

ÉTUDE DE LA SOLUTION PROPOSÉE

exemple d'équation dans un texte $a = \frac{b}{c}$.
exemple d'equation dans un environnement equation :

$$C(T(s, M)) = \sum_{e \in T(s,M)} C(e) \tag{5.1}$$

pour conférencier cette equation on utilise : l'équation numéro : 5.1

pour ecrire un algorithme : L'algorithme migration est adapté et défini comme suit :

Algorithm 1 Migration adaptée

```
1: Begin
2: for i = 1 to n do
3:     calculer μ_i
4:     if (rand() ∈ [0,1] < μ_i) then
5:         for j = 1 to n do
6:             calculer λ_j
7:             if rand() ∈ [0,1] < λ_j then
8:                 Remplacement-chemin(solution i, j)
9:             end if
10:        end for
11:    end if
12: end for
13: End.
```

CONCLUSION

Nous avons proposé une nouvelle approche pour résoudre le problème bla
bla bla bla pour gerer les ressource bib il faut creer un fichier .bib
voir le dossier template, j'ai appelé ce fichier : mabiblio pour referencier une ressource : on ecris : [Araújo and Garrozi, 2010]
pour choisir un style de bib par exemple apalike
pour lancer la liste des ressource :
et n'oublier par de faire une compilation de type bibtex

BIBLIOGRAPHIE

[Araújo and Garrozi, 2010] Araújo, A. F. R. and Garrozi, C. (2010). Mulroga : a multicast routing genetic algorithm approach considering multiple objectives. *Applied Intelligence*, 32(3) :330–345.