Major Project
VII sem - IS7C04

Title :

Online System For
On Demand Household Services.

By -

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CONTENTS

INTRODUCTION →

This full stack web application will serve as a bridge, connecting skilled service professionals and customers, making it easy for users to discover and connect with skilled workers such as **electricians, plumbers, computer repair technicians, painters, carpenters, cleaners, and more**.

INTRODUCTION →

Type of Project : Application type.

Broad Area:

- Full stack development
- Blockchain
- Machine Learning

OBJECTIVES

1. To develop a platform that connects skilled workers with customers, offering a straightforward registration process, efficient appointment booking and scheduling process.

2. To create an integrated location-based system that enables customers and service professionals to locate each other and access maps and directions for service appointments.

OBJECTIVES

3. Implement **blockchain** to securely store work records, reviews, ratings and other sensitive information, enhancing trust and transparency of the platform.

4. Utilize **machine learning** to develop intelligent **chatbots** equipped with natural language processing which improves user interactions.

EXISTING SYSTEM →

- Lack of a centralized platform for service providers and customers.
- Absense of location-based services.
- Lack of Standardization.
- Absense of work management tools for service professionals.
- Limited user engagement.

Limitations:

- Time consuming
- Inefficiencies in Appointment Scheduling & Tracking
- Lack of Transparency

PROPOSED SYSTEM →

- Centralized platform
- Integration of location-based services for efficient appointment tracking.
- Providing work management tools for service professionals.
- Better quality of service through user’s reviews and ratings.
- Securing the work records , user’s ratings & reviews in blockchain.
- Improved user engagement through chatbots.

Advantages:

- Not time consuming
- Efficienct appointment tracking
- Standardized pricing and services.
- Enhanced trust and transparency.

WHAT PROBLEMS ARE WE SOLVING ?

Customer’s perspective =

- Service Discovery
- Service appointments / Bookings
- Geographical Inefficiencies
- Standard pricing
- Quality of service
- Genuinity of service ratings
- User engagement

Worker’s perspective =

- Increased opportunities for work
- Manage appointments
- Track earnings

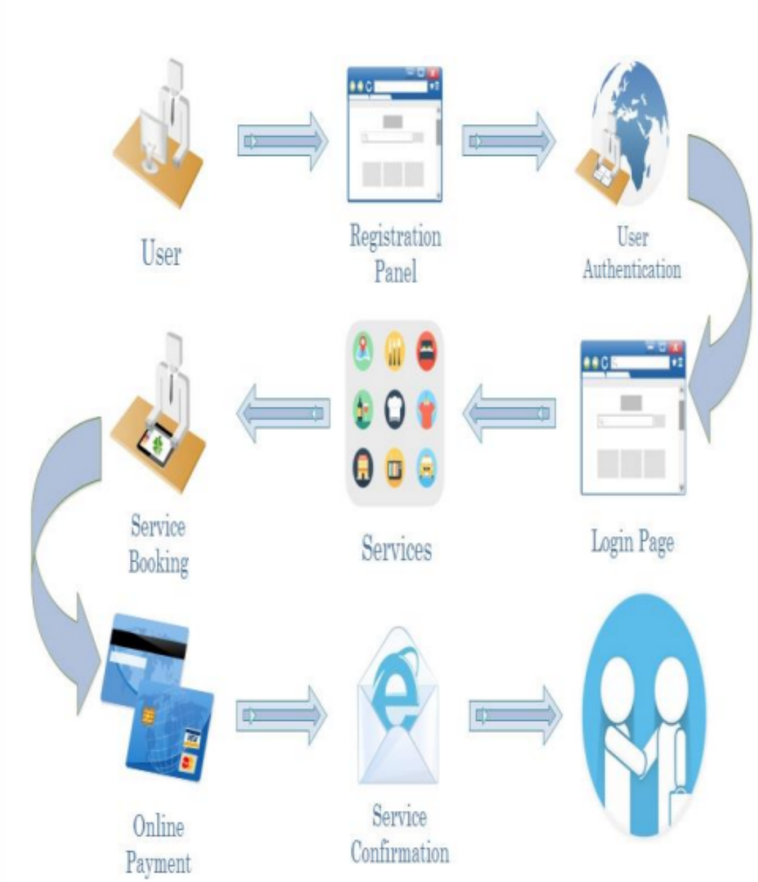
LITERATURE SURVEY →

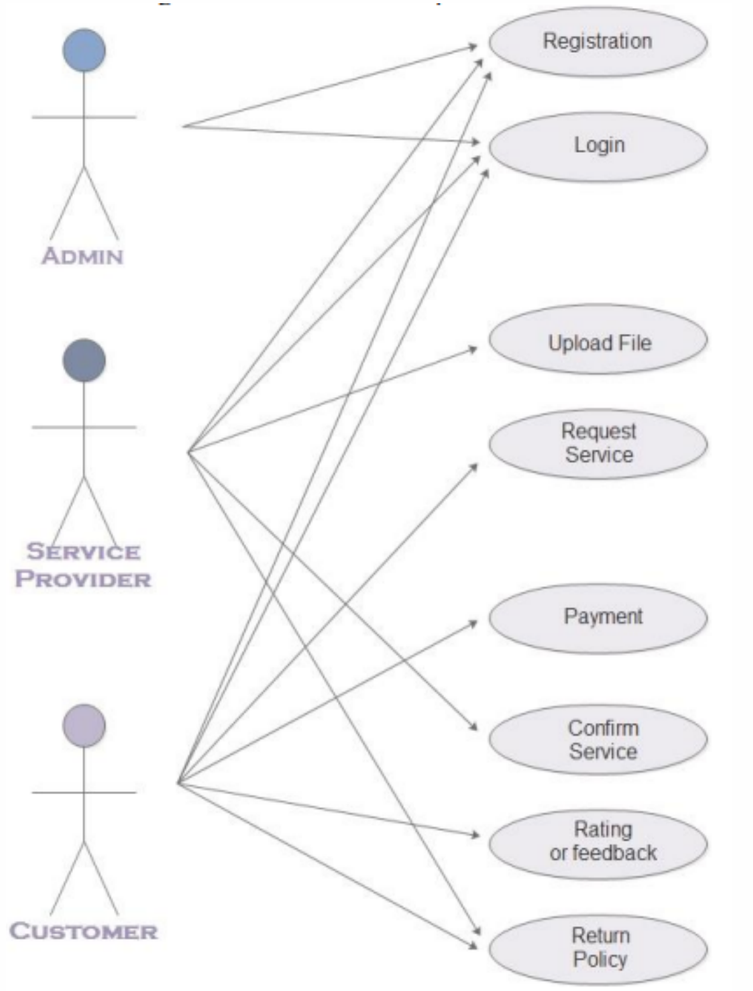
1 . An Online System for Household Services : [Link]

A research paper published by N. M. Indravasan, Adarsh,Shruthi C, Shanthi K , Dadapeer in International Journal of Engineering Research & Technology (IJERT), 2018.

- A web-based and mobile application that provides various home services at the doorstep.
- The system uses WordPress, PHP, MySQL, and a payment gateway to implement the registration, service, payment, and feedback modules for users and service providers.
- The system reduces the hassle of finding and bargaining with skilled professionals, offers a secure and convenient payment method.
- The system can be extended by adding more features such as location tracking, work management tools, chatbot based user interaction, and tamper proof reviews and ratings.

LITERATURE SURVEY→





High level design and the use case diagram as explained in the paper

LITERATURE SURVEY →

2 . The Internet Computer for Geeks : [Link]
A whitepaper published by “The DFINITY Team” in 2022

- The Internet Computer Protocol (ICP) blockchain is a decentralized network of computers that can host websites, dapps, and other online services.
- Allows http requests.
- Interaction without tokens.
- Infinite scaling
- 0 nodes in cloud
- Cost of 1 gb = $5 in ICP whereas $ 3.5M in etherium
- Creation of node = 2 secs in icp vs 5 mins in etherium

LITERATURE SURVEY→

3 . JustDial : [Link]

JustDial is a popular online local search service in India, providing a directory of businesses and services.

- Traditional local search and directory service
- Just few details about the business and contact info of the service professional is given.
- User Reviews and Ratings
- Few other features like Geolocation Tracking, Work Management Tools, Interactive User Experience, Tamper-Proof Reviews and Ratings are not there in JustDial which makes our project unique.

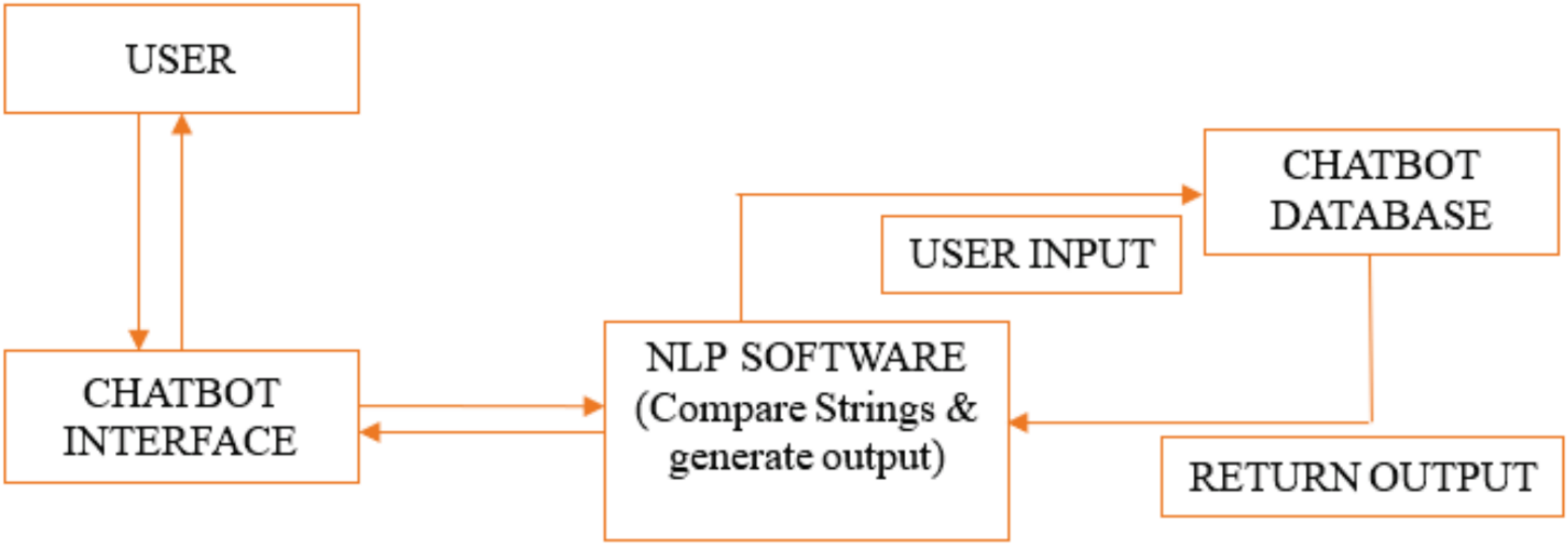
LITERATURE SURVEY →

4 . Conversational AI Chatbots : [Link]

A research paper published by a group of researchers in International Conference on Intelligent Technologies (CONIT) , 2021.

- The paper reviews various chatbot systems that are used in different domains such as education, healthcare, business, etc.
- The paper discusses the basic terminology, design, architecture, advantages and disadvantages of chatbots.
- The paper suggests that chatbots can be improved by adding emotion, multilingualism, and personalization features.
- The paper concludes that chatbots are a powerful tool that can facilitate communication, provide information, and automate tasks.

LITERATURE SURVEY→



Chatbot design as explained in the reseach paper =

HARDWARE REQUIREMENTS

- **Processor**:Quad-core processor or higher.
- **Memory** : At least 8 gb of RAM.
- **GPU** : A dedicated GPU with a minimum of 4 GB of VRAM.

SOFTWARE REQUIREMENTS

- Jupyter Notebook - For ML model
- VS Code - As a Code editor
- Python 3.10 - For ML model
- NumPy - For ML model
- Pandas - For ML model
- Node.js - For Backend development
- Express.js - For Backend development
- React.js - As a Frontend framework
- Bootstrap , CSS - For Frontend designs
- MongoDB - For Database operations
- Motoko - P.language for ICP blockchain
- DFINITY Canister - SDK for blockchain

Thank You