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Research Article



Digital Platforms for Local Service Provider–Client Matching a Review: As a Case Study the ZipZap Jobs

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Abstract | The increase in the adaptation in mobile technology transform the way, the people are searching for services, such as, service engagement, arranging employments and communication with the professionals. Despite having this type of progress, finding skilled workers and local service providers, which should be reliable, such as carpenter, plumber, electrician remained difficult when distribution of information is made across informal networks, advertisements and personal recommendations. The ZipZap Job app addressed this problem by giving a mobile based platform that is used to connect clients with local service providers by a centralize digital environment. This article is examining the testing approach, security considerations, technical architecture, functional characteristics, concept and future use of this app for the platforms which are based on supplied project documentation. A special attention is given to administrative management, notifications, ratings, booking, job applications, messaging, filtering, location-based research and user files. This review is also evaluating the limitations and strengths of the system, which is proposed including use of artificial intelligence for matching, offline payment models, internet connectivity dependence and its mobile based orientation. This project is also demonstrating how a simplified digital marketplace can be used to reduce friction in the local service discovery with the service providers having great visibility. Developments in future can strengthen the platforms through strong empirical evaluation by real users, improved filtering, appointment reminders, broader service categories, intelligence recommendation mechanism and advance verification system.

Key Words Intelligence, Digital, Client Matching, Traditional Approach, Directories

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INTRODUCTION

Now a days digital platforms are more popular to connect different individuals how want to deliver their services professionally. To find specific perfectional in a specific geographic area is a difficult task and difficult decision to hiring a client need to evaluate reliability, local services specially related to the technology supported at marketplace. Traditional methods require considerable time to find directories, informal communication networks, personal references and local rates and not always give enough information about services provider's skills, accessibility, status or experience. To solve all these problems The ZipZap app was introduced through which centralized mobile platform provided. According to this application the system connects local service providers with client seeking services like electricity related work,

plumbing, machine repairing related work or many other related activities. This application provides separate functionally for clients or services provider there for each group perform their role or work accurately. The ZipZap application not only provide online job advertising, but it provides localized digital marketplace in which user can create a profile and find the suitable or trustable service provider this app also provides the facility to give feedback or ratings from client this feature left the strong effect of provider profile and more client trust them and hire for their services. Further an important motivation for system digital transformation in gig economy [1].

Problem Context and Validation

In local market service one of the major problems is lack of an organized mechanism therefor it is difficult for clients

to find appropriate professionals. For a client to find difficult provider suitably qualified responsible and geographically accessible for the purpose of electrician, a plumber, carpenter or alike worker. Further on the other hand provider also struggle in existing personal network space to promote their services or skills.

Basically, the ZipZap job app find the two-sided problem. Firstly, the provider looks for better opportunities and market skills on the other hand the clients want to discover communicate or compare professional. This app provides a digital platform where client or provider are centralized on same place and try to find the exact matching [2].

This is an important platform for design perception, because the marketplace value depends upon dropping search costs for both client or provider side. According to benefit point of view provider finds the more potential clients through their profiles and clients find the professional on the platform in a limiting time. This app provide many features like profiles, filters, feedback strategies and communication tools.

Goals

- Authorizing local service providers,
- Improving client accessibility,
- Establishment of trust and
- Dependability,

These goals prove that the application is intended to report both technical and practical contests.

Functional Characteristics of the ZipZap Jobs Platform

User Profiles

The main task of this application is to manage profile. Service provider profile contains information related their skills, rates, the services which provider provide and experience in related field is manage. Client profile contains information about its requirements and location. Not only relay on contact number profiles is necessary for both provider or client after reading detail both communicate each other. Provider profile which contains information about its professional, skills, experience and rate increase the client visibility protentional.

Search and Filtering

Search is an important feature of this application. This app provides different filters like rating, location, charges and availability. Due to all these filters customer or client easily find the providers according to their needs. If we see according to usability point of view all the filters which are provided reduce the effort of finding suitable provider. For local services location-based filtering is very important because mostly services required professionals who can reach location physically easily.

Communication and Booking

This platform also provides the facility to communicate directly means customer or service provider directly communicate each other without involve external communication channels. Before finalizing provider user discuss all requirements in detail. Another feature of this app is notification also added to inform user about new updates.

The payment system between parties is physically deal instead of online payment. The booking system of this app is very simple where user easily finds provider according to their requirements. The main purpose of this application is to reduce complicity of payment and use the simple and easy method of payment between parties.

Ratings and Reviews

Trust is very important term in marketplace because customer not know about the professional of provider in detail this app uses the rating therefor customer see the profile and trust the provide. Users give feedback after the provider complete its task and service provider can rate users.

Due to two-way feedback process the main advantage of this application. Only feedback process service provider information used for future users. The simplicity, direct communication and physical payment system make this application more attractive.

Technical Architecture and Development Approach

This app is design for both Android and iOS mobile devices using React Native. Due to this it is easy to maintain and saves the time of development. Database which is used Firebase it's an important feature of this application. Firebase Cloud Messaging is used to sends notifications, the data store and update by firebase, Firebase authentication also manages user accounts.

Another important feature of this app uses map and location services which help users to find things based on their location. The facility of messaging and notification also allows user to communicate quickly. Scalability, easy maintenance and development are the main benefits of this technology. Traditional services mange by using Cloud services.

However, some problems like poor internet connect, APIs, Device compatibility and cloud services affect the performance and availability of this application. These are some limitations of this application. But this application is considered for security, Future growth and protocols.

Security, Privacy, and Trust

Security point of view is very important because in this application personal data or information, messaging and profiles is used both users and service provider.

- Encryption and HTTPS protocols are used to protect information which is ues or transfer
- Login account is used to protect from unauthorized users

- Role-based admission control is used to give different types of permission to their users, providers and admin
- User verification used in this application is guarantee service provider is an original person not fake
- To report if any unusual activity seen increase the security of this application
- Contact number in case of any emergency increase the security

In simple words we say that this application is secure in marketplace when we added professional certificates of provider, honest feedback or review, safe communication between client and provider proper monitor or handle complaint by administrator [3].

Analysis and Testing Perspective

Structured software development process is used in this application. According to this process following terms are include like firstly requirement analysis then design, implementation and finally testing of this application. The main entities are service providers, users and admin. They can perform different duties like login, profile management, messaging, provider hiring, review and system managing etc.

Different testing techniques are used in this application like black box, white box and graph testing. Different inputs and user action against test in black box testing, internal source code used in this application check by white box testing and mobile applications test by graph-based testing in which seen how user move between screen like from home screen to login, job listing and dashboard etc. Testing is very important feature of any application in which easily find different problems that may case problem from client site. Overall performance of application increases by using these testing methods. If we add real customer feedback and actual performance results this application would be stronger.

Strengths of the Proposed System

ZipZap Job platform has various strengths but discussing a practical problem by connecting local service providers and customers with the help of two-sided market place. It is integrating administrative support, ratings, bookings, notifications, messaging, filtering, search and profiles in the form of one platform. Its user focused and simple design is keeping the main purpose of connecting client and provider very clear. While its architecture is providing a foundation for future improvement like AI based recommendations and provider matching.

Limitations and Areas for Improvement

As many benefits of this application also some limitations as follows:

Limited Verification

To check service provider background, profession, certificate, real identity and qualification is very important. Reviews and rating build a trust.

Offline Payment Model

Using physical payment instead of online payment make the application less trust worthy. Because online payment system all record mange easily and receipt information is saved online. This is the limitation of this application.

Internet Dependency

Poor internet connection cause problem in Real-time applications like messaging, notifications, synchronization, and location services.

Limited-Service Categories

Start with common features easily to manage. But expanding in IT service and other specialized service increase the marketplace worth.

Need for Advanced Matching

Currently used filters are used to find provider easily but when we use Artificial intelligence-based filters are used improve the matching of this application.

Need for Real-World Evaluation

For theoretical research, the podium should be confirmed with real users and quantifiable results, comparison it with traditional means based on search time, hiring achievement, user approval, and conviction [4].

Future Research Directions

ZipZap Jobs app could be enhanced into intelligent based service marketplace with the help of AI-bases verified profiles, provider matching, location-based recommendations, and advance appointment management with the help of automated reminder. In future research further help to evaluate its economic and social impact, for example, further efficiency in local service market, more customers trust, reducing service search timing and improved job opportunities.

CONCLUSIONS

ZipZap jobs is designed as a mobile platform which is used to connect local provider with clients with the help of a centralized system, which is very easy to use. It is used to integrate administrative management, reviews, ratings, bookings, notifications, filtering messaging, and search profiles.

The Firebase and React Native are used to provide a practical based foundation for cloud storage, authentication, real-time updates, cross platform development and notifications. But the areas like secure payments, network dependency, data privacy, real-world usability tests and provider verification require more improvements.

However, ZipZap Jobs app is providing the efficiency of mobile technology in order to transform market of local services. Further future enhancements like secure transaction, appointment reminders, strong verification,

advance filtering and AI based matching could be helpful in order to develop it into a digital marketplace.

REFERENCES

- [1] Dey, Anind K. "Understanding and using context." *Personal and Ubiquitous Computing*, vol. 5, no. 1, 2001, pp. 4–7.
- [2] Phillips, Bill et al. *Android Programming: The Big Nerd Ranch Guide*. Big Nerd Ranch Guides, 2019.
- [3] Meier, Reto. *Professional Android Application Development*. Wiley Publishing, 2018.
- [4] Sommerville, Ian. *Software Engineering*. 10th ed., Pearson Education, 2016.