

# QUICK DEED

## A Platform to find Instant work.

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**Abstract**— Quick deed is an application that bridges employer and job seekers where employers are the origin of the resources, and the job seeker can find and apply for their pick out job. The quick deed provides an environment for users to provide and seek jobs, where one can find and filter the available work with their skill set. The consumers and service providers can both post their targeted requirements and seek out each other. The jobs may include short- or long-term services. Consumers can browse for services and send requests to the service providers then the service provider can accept the request of the consumer and both can communicate.

This will open a new window of opportunities for several people in situations where they cannot actively go out to seek jobs or cannot work consistently.

**Keywords**—Quick deed, Instant work, jobs.

## II. INTRODUCTION

Quick Deed is a platform where we focus on unorganized/unskilled sectors to acquire employment and opportunities in their local radius. Needy people, on the other hand, will get their chores done swiftly. In their spare time, an individual can undertake domestic chores or other essential jobs for the users on this application and earn money, or they can go shopping for the employer and get compensated. We also offer a unique face time idea through which users on this platform may engage with the other service providers of this platform and can obtain the finest advice on their specific subject. Also, we have a distinct section in which the workers can identify with different parts using filters, whether he/she belongs to which category or domain of work or wishes to work for.

The convergence of information and communication technologies has produced an environment in which we may acquire information and services online from anywhere, at any time. In a condition of movement, information and online access are examples of this. By the use of our fingertips, we may provide services. applications for mobile devices These smartphone apps are versatile. Personal, perishable, transaction-oriented, and location-based particular, business, and entertainment. "Quick Deed" is an application that is currently in development. This is a mobile application for Android users that caters to their needs. The needs of a client looking to supply domestic services by connecting consumers and home services together via the internet providers of services Users who have registered can make a service request. The user's location and the service's location are used to locate the provider for pinpointing one's exact location on the globe. The application's easy-to-use interface; the

application's immediate availability. It has a rating and feedback option, which makes it a useful service. For all users, it is quite beneficial and reasonably simple to use. A service can be requested by registered users depending on the customers' preferences and is accessible through the app. The closest service provider is assigned to cater to the needs of the locality. A user's service requests the user's location and the service's location is both important. The GPS is used to perform this. for pinpointing one's exact location on the globe and the application is an easy-to-use interface, the application is immediate availability. It has a rating and feedback option, which makes it a useful service. extremely practical and affordable.

## II . RELATED WORK

- [1] In the year 2020, Ms. Prachi S. Tambel, Nikam Poonam, Gunjal Trupti, Jadhav Priti, and Parakhe Sonali released a paper titled An Online System for Home Services in which they argued that the online platform benefits both customers and sellers by creating good communication. To design and construct a system that delivers a range of services at your doorsteps, such as plumbers, movers and packers, and repair people, in just one click. However, it has a disadvantage in that a user may either be a service provider or a service consumer, not both. And I'm unable to keep track of my job.
- [2] In the year 2018, N. M. Indravan, Adarsh G, Shruthi C, Shanthi K, and Dadapeer published a paper titled An Online System for Household Services in which they stated that "Any authorized user intending to seek household services through an ingenious web-based system can use the Online system for household services." However, the paper has a flaw in that it only accepts MasterCard for payment processing and does not offer a mobile app.
- [3] The proposed model is a mobile application for locating handyman services within a locality to help in streamlining this process and provide a structured approach for determining the location and quality of service to be provided by the handymen, according to Bernard Shibwabo Kasamani and Denis Gikundi, who published A Location-Based Service for Handyman Order Placement in the year 2017. However, the study has a flaw: this mobile application solely targets handyman services, which are mostly house repairs and upkeep.
- [4] In 2017, Keethana Kopuri, Gulam Mujtaba Hussain Aqueel, Azbar Sadiqa Jabeen, and Dr.T.K.Shaik Shavali released An Online Job Portal Management System, in which they mentioned that a job portal is a website dedicated to online information about recruiters and job searchers. An employment portal assists both job searchers and recruiters in

locating the best company for their workers. However, the study has a flaw in that it proposes the notion of only hiring people with specific qualities and selecting a limited number of candidates from a pool of applicants.

[5] How do Online Job Portals Affect Employment and Job Search? was published by Erin M. Kelley, Christopher Knoll, and Jeremy Magruder. The research employs a randomized control trial to investigate whether job portals increase employment outcomes among vocational training graduates in India, they asserted in the year 2020. However, it has a disadvantage in that this study report solely focuses on how internet job portals can improve employment, but no application was built to address the problem.

[6] Denis Gikundi is a character in the film Denis Gikundi In 2017, the Faculty of Information Technology (FIT) at Strathmore University published a paper titled A Mobile application for locating available handyman services within a locality, in which they stated that the online job community is active, and job seekers who want to work usually encounter it at least once. However, whether the community leads to employment is debatable. As a result, there is a need for a method via which the job community may assist with employment. However, there is a disadvantage: this study had administrative constraints and no live tracking. Services are confined to repairs and maintenance in the home.

[7] Ali Habib, Dr. Shivprasad Patil, Rajkumar V Patil the Google maps application programming interface (API) returns the response of a person's location in the form of coordinates, such as latitude and longitude, according to Shradha Shelke, Shweta Rajput, and Taha Habib, who published a paper titled An Online Portal for Home-Based Services in the year 2021. The user's and service provider's coordinates must be transformed so that the distance between each service provider's location and the user's location may be displayed in kilometers. The technique presented below calculates the distance between each service provider and the client. However, there is a disadvantage: this program only provides domestic house services where clients may be supplied.

[8] In the year 2021, Fr. C.R.I.T, Vashi, and Navi produced a paper titled Consumer-Service Provider Connect in which they said that the web application functions as a platform where consumers may request services that they want to be performed. Electricians, plumbers, instructors, and carpenters are among the service providers. In the application, there would be both long- and short-term services available. However, there is a disadvantage: this online application lacks maps for real-time tracking of service providers. Customers cannot pay for the services they have utilized since there is no payment gateway.

[9] In 2016, Sheetal Bandekar and Avril D'Silva released a paper titled Domestic Android Application for Home Services, in which they said that the users' position is retrieved via GPS (Global Positioning System), which retrieves the latitude and longitude. The program will try to discover the nearest service provider based on his present position by retrieving the service provider's latitude and longitude, and then the requested user will be assigned to the nearest service provider by sending an SMS (Short Message Service) to fulfill his request. However, it has a disadvantage in that the user may only log in as a service provider or a

service consumer, and it automatically assigns the user to the nearest worker because the provider cannot pick the worker.

### III . PROPOSED MODEL

There are many different portals and applications that directly or indirectly support finding a job, but there are no applications to find work that doesn't have an educational background. People with different skills can find work on this application in which one needs to post their skills and experiences based on their skills, work posts are availed to them. By introducing GPS(Global positioning system) service and a Live streaming system, the flaws in the related systems were eliminated. The authentication module is integrated into the application, as it allows the users to register using their mobile number and sends an OTP to validate and verify the user, after authentication, the user can perform actions like Registration, Login, and Signout facilities. The quick deed is an application that bridges employer and job seekers where employers are the origin of the resources, and the job seeker can find and apply for their pick out the job, This application requires both users and service providers to register in order to proceed further with the application. The position of the user is obtained using GPS and a live streaming system, where this facility gets the latitude and longitude once the user makes his request for the service from the application during the user's registration The quick deed provides an environment for users to provide and seek jobs, where one can find and filter the available work with their skill set, this filter feature allows to create, retrieve, delete and update the works, as users of this application platform use this service to create a work, search for work and to filter the works based on the location, rating, type of work, amount for the work, etc. so based on the current position of the user, the program will attempt to locate the nearest service provider by retrieving the service provider's location through the GPS(Global positioning system), and then the list of user's will be assigned to the nearest service provider where the user can be able to choose the desired service provider to request them to work, whereas the service provider can also send a request to any other user on this application to get connected with the users and to do further. The worker and the service providers can both post their targeted requirements ad seek out each other. The jobs may include short or long-term services. workers can browse for services and send requests to the service providers, then the service providers can accept the request of the worker such that they both can communicate through another feature where the users can also stream to check whether the work is being done by the person who received the work through the features provided in the application like text, voice, and video call services.

As shown in fig. (1) The proposed system provides users authentication service which allows a user to create a single account using their credentials, this feature can be helpful such that they can search and post works on this application. This system is designed using the microservice architecture so that everyone's service on this application is independent and is so scalable to use.

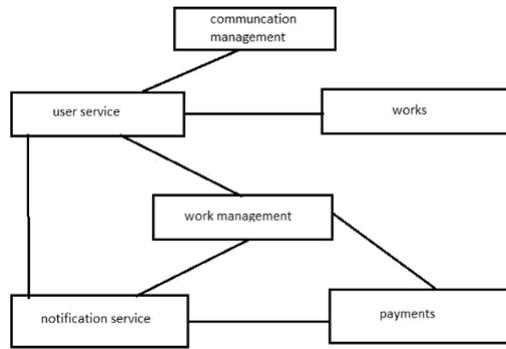


fig.(1).System Components

In order to manage the work easily, a filter feature is used which is based on parameters like location, rating, amount, and work type. Works microservice is developed through which all the works can be managed more efficiently by indexing works for better searching and filtering.

Quick deed uses a payment gateway to make payments after the work is being done using the app itself. in order to enable the payment option, Razorpay payment gateway is used and it is integrated into the application, the chat and video system are developed in the proposed system using socket.io and webRTC, and real-time app notifications are integrated into the proposed system so that a user quickly gets notified and be in sync with the app content and with other users and the proposed system allows users to track their work status using video or audio call feature. This will open a new window of opportunities for several people in situations where they cannot actively go out to seek jobs or cannot work consistently.

Our application does user authentication and Authorization using users' phone numbers and OTP. User authentication is done in order to keep away unauthorized users from accessing sensitive information and Authorization is done to give the right user permission to access the right resource.

Hence, This is an application that helps you discover things quickly, easily, and with a gentle touch. A single-click method explains the process of reserving competent and necessary working experts and ensures that the employer service is completed on time.

Another good upgrade is to provide the user's with more kinds of services that are going to help users on this application platform. Finally, while this program was created specifically for Android users, it would be designed so that it can also be used on other platforms such as iOS and Windows so that people who use these different kinds of platforms can be able to use this application interface.

#### IV. SYSTEM DESIGN AND ARCHITECTURE

Any user of the application can create an account on the QuickDeed platform, following where the users can create their profile or remove their account. The user of the Quick deed application might also begin applying for work openings that have been posted in the Application and can also post work to hire the workers.

**Functional Requirements:** The Quickdeed Application Platform is intended to be a one-stop for recruiters looking for talents for their work to be done, as well as workers to

simply find work and be paid through the Quickdeed Android Application Platform. The Quickdeed Application platform must be capable of carrying out the following tasks/features:

**Authentication Module:** The Authentication Module of the Quickdeed application is built so that users can sign up for the first the user registration on the application platform or users can sign in if a user is already registered on the platform according to the previous registrations, a unique id is assigned to the user after the user's registration on the platform. The assigning of a unique id to the user has proceeded during the registration process when OTP is sent to the mentioned credentials such as the mobile number to verify the user's identity and to assign the unique id to the user with valid credentials and on the successful registration during the registration for the first time on the platform. This module focuses on authentication and authorization, where the objective in this application-focused and used firebase technology in accomplishing the authentication of new or existing users on this application platform.

**Works Module:** The module that is used to get the work/service post from the user and store it in the database. It is also responsible for showing relevant work posts to specific users upon applying filters. The major responsibility of this module is to provide a feature where the users can post the user-defined work, update, retrieve and delete, whereas the job seekers can view and filter the works based on the location, rating, and payment options.

**Work Management:** The Work Module in the Quickdeed application platform refers to the Connections between the users where in order to make these connections one user have to request the other user on this platform, and the respective users have to accept the requests in order to make a connection between the two specific user profiles which it includes the sending of requests from one user to the other user on this application platform and one has to accept the invitations which are sent by the other users of the platform and received from other users in order to complete a connection. Through this, a user can connect with a specific user of an interesting work/service domain of the application platform. Also, another specific feature where the tracking the progress of work that can be done by the user of the platform which is assigned by the other user who can be called an employer is also shown in the application.

**Payment Module:** When a user(service provider) gets done with their work which is assigned by the employer, the very next step to be done would be the payment section, where the user called as a service provider would get paid for the work they have done from the assigned user. As the payment module has this feature included where one user gets paid by the other user, here actually the user can be able to make the payment transactions only after their completion of work. The payment module of the Quick deed application is trying to allow all payment transaction methods like UPI and other card transactions.

**Live Streaming Module:** The Live Tracking or Streaming module is to technically track the work which is being done by the service provider by the user who assigned the work to

the service provider. While tracking the progress of the work which is being assigned to the service provider if the user who assigns the work to the service provider would like to view the progress of the work or if he wishes to track the work, how it is done then the users can connect on live video and can interact with each other to share the work progress. This feature mainly helps to succeed in providing live streaming between the users who got connected on this application platform. This module doesn't only feature live stream, it has also got other features like chat, audio, and video calling functionalities.

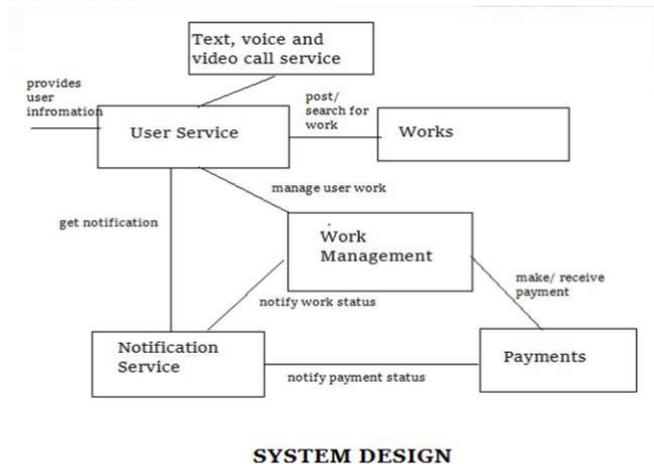


fig.(2).System Design

**Non-Functional Requirements:** The aspects that aren't directly connected to the program's unique functional needs are highlighted. The graphical user interface is an important factor to consider; it should be user-friendly and simple to use, with a focus on the functions that the interface must have. Furthermore, the reports in this application must provide enough columns and information for the user to compile statistics on asset status, among other things.

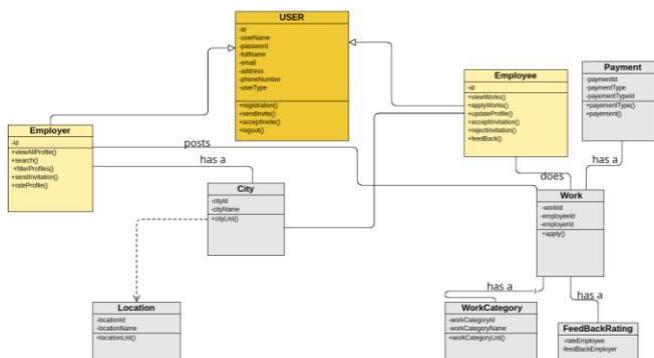


fig.(3). Class Design

The fig.(3) shows that it's the class diagram. It represents the static view of an application. The class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application. The diagram describes the attributes and operations of a class and also the constraints imposed on the system and shows a collection of classes, interfaces, associations, collaborations, and constraints.

**Use Case:** The below Use-case diagrams show the high-level functionality and breadth of a system. In figure. (4) The use case diagram depicts the functionality of the

employee, the employee is the one who works when work is assigned technically called the service provider. The functionalities of the employee are mentioned as registration, logging in, searching for the work, viewing the works, applying for the work, viewing replies from the employer, accepting the invitations which are received from the employer, rejecting the invitations received from the employer, and giving feedback.

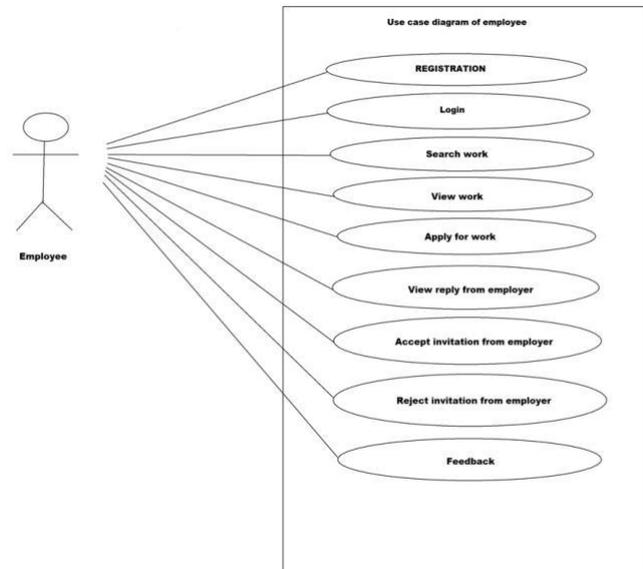


fig.(4). Use Case Diagram for employee

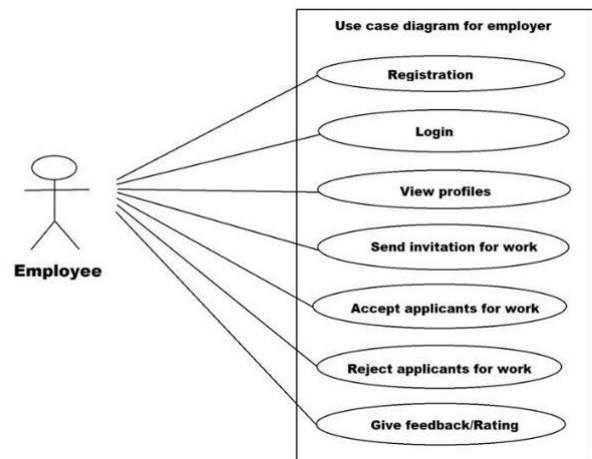


fig.(5). Use Case Diagram for the employer

The use case diagram in the fig.(4) depicts the functionality of the employer, the employer is the one who assigns the work to the service provider. The functionalities of the employer are mentioned as registering, logging in, viewing the profiles of the service providers, sending invitations to the service providers(employee), accepting the applications received from the employee, rejecting the applications received from the employee, and rating the profiles of the employee based on their respective performances.

**V . IMPLEMENTATION AND TESTING**

System Development and Implementation entails converting an intended information system's basic concept and specified goals into a working solution that meets the demands. The process of implementation is putting the system in place,

allowing users to interact with it, and ensuring that users are familiar with and understand how the system works.

**System Development and Tools used:**

(i) Front end: To assist organize and designing the user interface that would interact with system users, the android application was created using Flutter.

(ii) Back end: The back end structure was built using Node js, Express js, Firebase admin SDK, MongoDB, and socket io to construct system functionality modules.

(iii) Tools used for other functionalities: in order to provide a communication medium between the user, socket io client was used to implement the chat functionality, and Agora web RTC was used for video calling. Firebases services for JWT(JSON web tokens) management to authorize the rest APIs. Firebase cloud messaging was used for real-time notifications and for payments Razorpay flutter SDK was used.

**System Implementation:**

Considering the minimum requirements of the system, The Android Application which is implemented doesn't require any further complicated system requirements in order to access The Quickdeed platform. The Quickdeed application is made available in an apk format which can be installed and used without any complications.

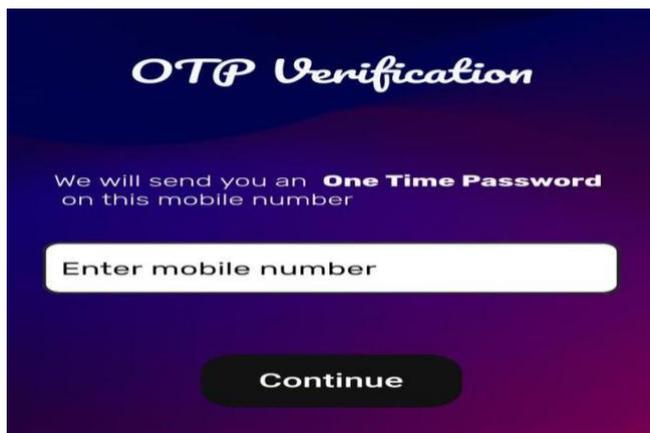


fig.(6).OTP Verification

Through OTP Verification, we can also check whether the given phone number is valid or not. If the user is not existing, then it will lead the user to create a user page where the user adds their profile details and their picture. If the user is already existing, then it will redirect the user to their account.

The Home Page has a toggle button that enables the user to toggle between the works page and the user's page to view each page. The user's page enables the user to view all the other user's profiles by clicking on a particular user. All the other users are displayed according to their respective distances from the user in ascending order. Each user profile consists of their rating and their list of skills which helps the user to connect with others by clicking on the Invite user button.

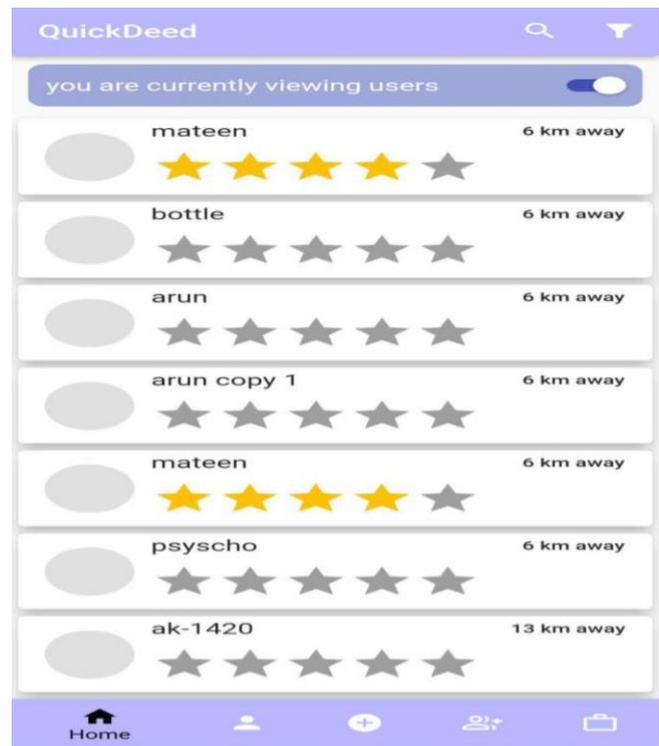


fig.(7).Users page



fig.(11).Works page

The works page enables the users to view all the works which are posted in our app. The users can sort all the available works by applying filters such as distance, type of work, posted by, and amount. A user who wants to apply for a particular job can send a request to the user who has posted that particular job by clicking on that particular job and then by clicking on send a request.

The Connect page contains connections, invitations, and request tabs. The invitations tab enables you to view all the invitations sent by the user to other users. If the invitation sent by you to another user is not accepted then you will not be able to connect to that particular user.

If the invitation sent by you to another user is accepted, then you will be able to connect to that particular user.



fig.(9)User Invitations

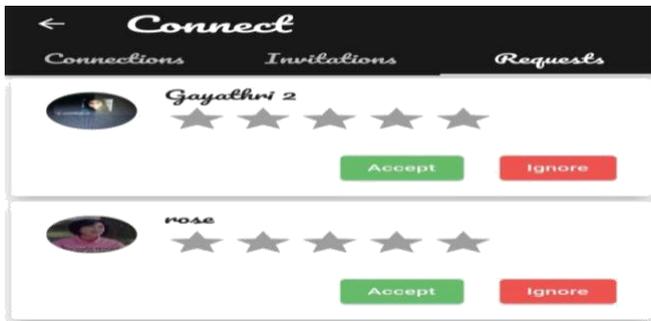


fig.(10)User Requests

The requests tab enables you to view all the connect requests sent by other users to you. If you do not accept then you will not be able to connect to that particular user. If you accept, then you will be able to connect to that particular user. As soon as you accept the connect request, a notification will be sent to the user who has sent you the connect request.

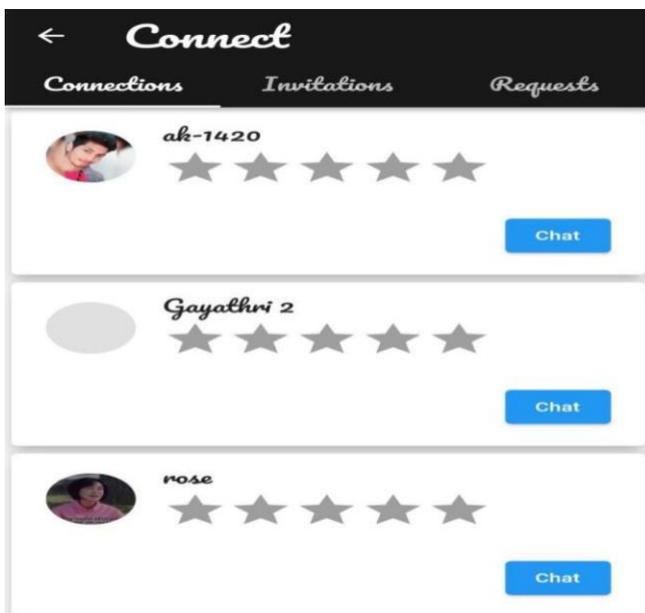


fig.(11).Connection page

The connections tab enables the users to connect with other users and to view all those users to whom they are connected and also enables them to chat with other users.

Works page will enable the users to view the work status and enable you to keep track of all the works by clicking on the serviced tab. A work can have the following status-completed, In progress, Not started and other details related to work. It enables you to check whether your work progress is up to mark or not.



fig.(12).Serviced Works

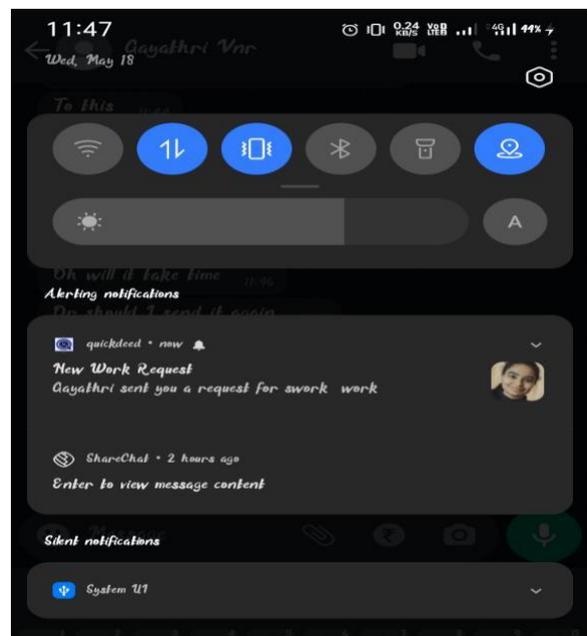


fig.(13).Work Request Notification

The employee can send a work request to the employer(the user who posted the work). Then the employer will receive a notification from the employee if the employer is satisfied with the employee's skills and rating then the employer will accept the request.

Soon After the employer will accept the employee's request a notification will be sent to the employee. Then there will be a connection established between the employee and the employer. Which enables the interaction between the employee and the employer through message and file sharing.

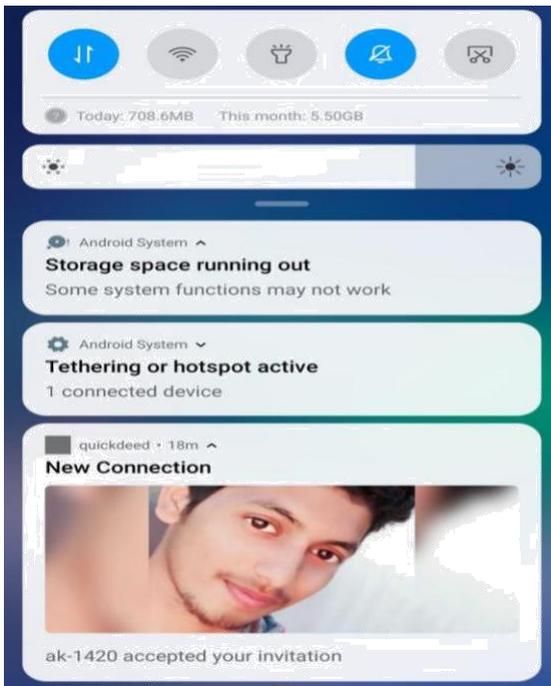


fig.(14).Notification on user request acceptance

## VII . FUTURE ENHANCEMENT

This program might be improved even further by allowing users to drag and drop to another area on the maps. If the user wants the service request to be completed somewhere other than his current location, he or she can utilize this facility. This necessitates the integration of maps into the program. Another good upgrade is to provide the user with more service kinds. Finally, while this program was created specifically for Android users, it may also be used on other platforms such as iOS and Windows.

## VIII . CONCLUSION

Users use Quick Deed to find the service providers and workers in the service domain, such as plumbers, photographers, gardeners, electricians, caretakers, and babysitters. To put it another way, it links internet users with other users connected to this application. Our goal is to structure the largely unorganized/unskilled services using technology and smart procedures. The only method to discover users under different domains such as gardeners, plumbers, teachers, electricians, photographers, singers, and dancers was only through word of mouth. There is no assurance of quality, and there is little openness. The Quick Deed platform has the potential to alter how users on this platform perceive services. Finally, we want to state that our project (Quick Deed) has the potential to make a significant difference in many people's lives while also assisting people in achieving a swift shift in unskilled/unorganized servicing.

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