

On-Demand Service

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Abstract- The On-Demand Website is providing a simple and efficient platform to performed simple tasks/work of people surrounding your area and make some money daily.

There are many people are try to find part-time jobs but they couldn't afford for some reasons like it take too much time, couldn't attend daily. So such people can earn some money by doing small tasks in their free time.

Also there are so many people have some tasks to perform but because of some reasons like doesn't have enough time, lack of manpower, lack of knowledge they are not able to do work efficiently, so for overcoming these problems they can hire a person which have good knowledge, enthusiastic about his/her talent can do work for us and also we pay for them for their service.

I. INTRODUCTION

On-Demand-Service is a website to give a platform to people who are in need of some quick cash and willing to do small works. It finds small work in your area. Job/Tasks are simple like Babysitting, mowing a lawn, Home Repairs, General Cleaning, Furniture Assembly, Moving, Heavy Lifting, Yard Work, etc. You can apply for a job on a daily basis. You can also register a task/job that you can able to pay some amount of money to other

There are many people need has some work to do but they couldn't because of some reasons like they don't have time for it, manpower for it. Such people register themselves to our website so their work is done by people who can able to accomplish it

A person who required to perform their task can register himself by filling details like name, address, phone number for validation.

Then give task/job description job duration and post the details. Same as this person who wants to do the tasks/job also needs to register himself. Then he can able to see all the posts in his nearby area. He or She can apply for that particular job.

There are different methods to finds jobs we need as per our concern which means he or she can search for a particular

job according to the city, duration of time, etc. Job provider and job seeker can interact with each other through messaging.

The job provider has all the information on job seeker in case of identification. After finishing the work job provider can give a review to job seeker which can be considered for its ranking if many job seeker applies for one job.

II. LITERATURE SURVEY

Prefer different web sites which provide services for getting jobs for full as well part-time like Task Rabbit, Urban Clap, etc. Most of these websites provided full or part-time job opportunities. Jobs like these required professional skills and technical knowledge and they are strictly bounded with their schedules which many people couldn't go for these jobs as they don't have enough time through their daily life. [14, 15]

Also, these platforms provide jobs that are salaried i.e. job seeker get paid on a monthly or weekly basis. So such kind of job is not suitable for people who want to earn some money by utilizing their free time throughout daily life. [14, 15]

We prefer different research papers related to web development and different technologies currently used for web development. We studied technologies like cloud computing is infrastructures that provide multiple benefits for on-demand high-performance computing, centralized data storage, and remote services access. As usual, Cloud users can access cloud services through Internet-based interfaces and Clouds offer the source provision "as a service". For example, the Google cloud platform, Amazon web services, etc. which provide different services like centralized data storage, functionalities to manage databases, shared virtual machines like rams, GPUs which increases performances of the system.[6,7]

We have gone through different research papers of System architectures and methods like Recommendation Systems, Classification Systems. There are numerous of recommendation systems and algorithms which are used by many web applications for recommendation purpose. These algorithms mostly classify and filter different items according to many aspects like behavior or on the basis of some mathematical model and provide the result to the user. [4, 5]

Many of these algorithms are machine learning algorithms so it does not require any human interference for e.g. commendation on algorithm likes content base filtering or item base filtering. Such an algorithm will be very helpful in our web-site to recommend different Job-Post or selecting the best Seeker for the job out of a bunch of seekers. [5]

Cloud platforms which we study also support these recommendation systems and provide many features to use in a very effective way. [5, 7]

III. CURRENT SYSTEM

Their many websites or mobile applications provide job opportunities for peoples. These jobs are mostly full or part-time jobs but all these jobs require professional skills.

Also such types of jobs bounded with strict schedules. And the payment is salaried i.e. on a monthly or weekly basis. Because of this such kind of job are not useful for those who want to gain some amount of money doing a small task.

Most of the websites provide jobs that required professional skills, and technical knowledge of a particular field so such jobs are restricted to only those people.

Such jobs are mostly not choices of people who need some quick cash and willing to do small works in their daily routine.

A. Limitations:-

- Such types of jobs required Professional skills and technical knowledge.
- Job timing is mostly fixed or strictly scheduled.
- For even part-time jobs Payment is done on a monthly or weekly basis.

IV. PROPOSED SYSTEM

We want to develop a website to give a platform to people who are mostly fixed some quick money and willing to do small works i. And also for some people who have to do some job/work but couldn't do because they don't have enough time for it or don't have the manpower to do the job.

So our website will help both who wants to get done their small task/work and who wants some money by doing a small task in their area.

Task/jobs which required are simple tasks which we perform in our daily life like Babysitting, mowing a lawn, Home Repairs, General Cleaning, Furniture Assembly, Moving, and Heavy Lifting, Painting, caring watering plants and Yard Work, etc. Most of these jobs do not require any high level of skills or any technical knowledge.

Our website mostly depends on three main aspects which are

A. Task Provider:-

A task provider is a person who wants to perform some task/work.

B. Task Seeker:-

A task seeker is a person who wants to perform some tasks and earn some quick money.

C. Task Post:-

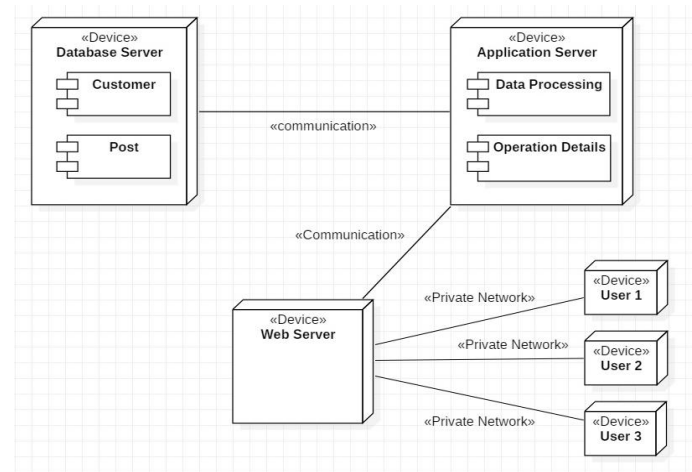
Task post is a field that contains all information of any particular task. Does it contain details of Task i.e. what type of task is? Details of task location, time, amount get paid, who created task? , who complete the task? etc.

Our system is based on these aspects A Task provider post their tasks post on the website task is most usual which can be performed by anyone within a particular time period.

These Tasks posts contain all the information on the task which needs to perform information like owner who created the post, Task seeker who accepted task post, Also where it should get done when it should get done, and how much amount would get paid.

Task seeker then accepts these task post if he/she can able to perform that task. After performing the accepted task; Task seeker gets paid the amount according to Task Post. After both Task providers and Task seeker can rate each other according to their behavior this very useful for recommendation purposed.

V. SYSTEM ARCHITECTURE



A. Registrations:

In the registration process, the user can register using email or phone number. User needs to provide essential information like name, date of birth, current address, etc.

B. Creating Post: (As Task Provider)

- Any user can create Task Post as per the work he/she wants to get done.
- Post required some details to field like work description, work location, date and time, amount get pay.
- Submit post.

C. Accepting Post: (As Task Seeker)

- Different Task Posts are available to the users according to their area/location from which users can accept any Task Post.
- After accepting task post user (Task Seeker) need to wait for approval or confirmation of Task Post from Task Provider.

D. Confirmation of Seeker:

- There are many users who applied/accepted the same post so now Task Provider can select any one seeker from list of the seeker who accepted Task Post.
- Task Providers can get help from user reviews and ratings for selection of best seekers.

E. Task Complication:

- According to the given information, Task Seeker can perform the given task and get paid amount specified in the Post.

F. Feedback:

- Both Task Provider and Task Seeker can review and rate each other on their behavior so it can be useful for recommendation purposed.

VI. MODELS

A. Calculating Nearest Location

1) Haversine Algorithm

It is used to obtain a distance between two different points. [3]

Algorithm can be defined

$$a = \sin^2\left(\frac{\Delta\phi}{2}\right) + \cos \phi_1 \cdot \cos \phi_2 \cdot \sin^2\left(\frac{\Delta\lambda}{2}\right)$$

$$c = 2 \cdot \operatorname{atan2}\left(\sqrt{a}, \sqrt{1-a}\right)$$

$$d = R \cdot c$$

B. Recommendation System

1) Content-Based System

- It calculates the similarity between different objects based on some attributes and finds out the similarity. [5]
- E.g. similarity between types on bases of tags.

2) Item Based System

The aim to provide a prediction of different items in which a user would be interested in based on their preferences. [2, 4]

a) Cosine Similarity Formula:

$$\text{similarity} = \cos(\theta) = \frac{A \cdot B}{\|A\| \|B\|} = \frac{\sum_{i=1}^n A_i \times B_i}{\sqrt{\sum_{i=1}^n (A_i)^2} \times \sqrt{\sum_{i=1}^n (B_i)^2}}$$

C. Cloud Platform:

Cloud computing is becoming a prevailing provision of computing infrastructures for the enterprise and academic institutes towards enjoying a multitude of benefits: on-demand high-performance computing capacity, location-independent data storage, and high-quality services access. As usual, Cloud users can access cloud services through Internet-based interfaces and Clouds offer the source provision "as a service". For example, Cloud providers offer Infrastructure as a Service (IaaS) that provides virtualized computing resources that can host the users' applications and handle the associated tasks. [7]

E.g. Google App Engine is one example of PaaS that is geared with a variety of tools such as Python, Java, and SQL. Other types of Cloud services include Software as a Service (SaaS) in which the software is licensed and hosted in Clouds; and Database as a Service (DBaaS) in which managed database services are hosted in Clouds. [7]

VII. CONCLUSION

When the development will complete and all the functionalities will prove to be working the study sought to seek if the set objectives would be achieved and to see how the developed website will superior against the current system, its advantages and benefits, and the improvement that it has brought that make it unique.

By using this website people can do small jobs/tasks in their local area and make some money.

People who have some work to do which can be also done by other people in a small payable amount.

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