Workforce Accumulation System

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Abstract: Workforce Accumulation System is the latest innovation to give people with the job they are looking for. It is designed to be a cost-effective and time-saving application for searching and acquiring workforce in the nearby area via the use of web application. This study is aimed at providing help to the people who are facing problems about finding the correct labour for the required job in the nearby area. This also aims at providing an easy way to get a job for the labour. The web application will give the complete detail about the job description of the labour and their availability in a particular area. The user can select the job which needs to be done and so the available labour will be displayed. User can now select and contact the labour for getting the job done. It will reduce the manpower required to search labour physically as all that can be done with the web portal.

Keywords— DotNet, MSSQL server, JavaScript

I. INTRODUCTION

Workforce Accumulation System is a web application for providing a range of access to the user in managing and accessing the requirement they face regarding labour acquirement.

This web application would help in saving time and energy of labour that is looking for jobs as a job will come to them automatically. The application would give complete details about the nature, type of labour required for a task. For example, if someone is building is house then he requires labour related to construction so he can select construction given under the 'category' dialogue box and the next step is to decide radius under which he/she wants the availability of labour. Now the search process starts which works according to the last active location of the labour. The list is generated showing the available labour and the user can select and contact the required one.

The need for the development of the web application is to help the user invest less time and provide timely help in the situations when one requires a workforce. There are also certain scenarios when is not able to find labour according to his requirement or there is a shortage of workforce so he can fulfil his workforce by the help of this web application. Suppose a road is to be constructed by a dealer and he requires 20 people to complete the job. Although the currently available workforce is 10 so he can switch to this web application to fulfil his requirements of 20 people.

Web application for this is an effective way through which users can access the system. Nowadays internet is available everywhere and everyone uses it. So this application will ensure that people can use the internet for finding work and acquiring work for their needs. Unlike traditional applications, web applications are accessible any time, anywhere and via any PC with an Internet connection. This puts the user firmly in charge of where and when they access the application. Through this application, user can look for the workforce any time, anywhere.

Traditionally, there are certain areas where a gathering of the workforce takes place. They invest their time and money to travel to that area and lots of time is just wasted to find a job. This application tends to provide more and more job opportunities for the labour class of our country as he/she is appointed for a job according to his/her skills just by sitting at home.

The aim of this application is to provide the user with the desired choice of labour for a particular task within a specified area. This application is a solution we found to help people who require workforce whenever there is a scarcity of one. This application tends to provide more and more job opportunities for the labour class of our country as he/she is appointed for a job according to his/her skills just by sitting at

home. This would help in saving time and energy of labour that is looking for jobs as a job will come to them automatically.
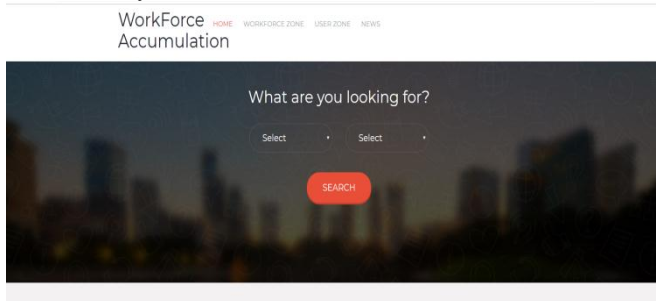

Figure 1: Home page of Web Application

It works around the problem that people face in finding the right kind of labour for the job. There are certain emergency situations where the workforce is not available in the nearby area so by using this application that need can be fulfilled. The need for the development of the web application is to help the user invest less time and provide timely help in the situations when one requires a workforce. There are also certain scenarios when is not able to find labour according to his requirement or there is a shortage of workforce so he can fulfil his workforce by the help of this web application.

This web application will provide a platform for the workforce to find more jobs and this will make their task simple by just using the internet and look for it. Thus, providing employment opportunities for all and increasing the economy of our country.

The rest of the paper is organized as follows, Section I contains the introduction about the study and what is the aim behind it , Section II contains the related work of workforce accumulation system and any brief study about it, Section III contains the system architecture, Section IV contains the workforce accumulation system design and how it is developed., section V explains the system implementation and the philosophy behind this, Section VI describes results about the developed application and Section VII contains the conclusion and future work that can be done on this study.

II. RELATED WORK

Web applications have become a part of the modern world. Many services are available on the internet that helps people to live their lives with ease and comfort. Due to the growing world of web and internet, everything is available on the internet. Many companies are now working towards providing their consumers what they need at their homes only. One such company Urban Clap provides services to its consumers. Urban Clap started as a startup and currently is the fastest growing startup in India.

They provide services at home to the customers by hiring trusted professionals for all the services that the customers needs. The user can hire plumber, carpenter, electrician, carpenters, cleaners. They also provide personal services like beauty, spa, mobile repairs and many more.

Other companies are also growing which provide different services to the customers at home. Their main aim is to make sure that the customer can avail all the necessary services and need not go out for the same. By just sitting at home and using the web application you can avail all the day to day services.

With the growing competition in the market, new services are being added. Earlier only carpenters and electricians were available for the services. But now personal care is also provided like beauty, spa, yoga and fitness instructor and also mobile and computer repairing is available. This is making the life of the customer easy and also provides employment opportunities for the youth of the country.

With the growing demand for such services the employment opportunities are growing and thus the need of many more applications is also growing to provide such platform for the youth to avail a job and for the customer to avail benefit from it.

III. SYSTEM ARCHITECTURE

JavaScript, HTML and dot net programming tools were used. It is used to make interactive web pages and is an important part of web applications. HTML is a mark-up language which is used to write the code for a web page. With the use of HTML, a web page can be designed and it can be stylized by using CSS(Cascading Style Sheet). JavaScript code is written with HTML and the browser processes these codes and provide the interactive web page.

With the use of JavaScript, the entire page need not be reloaded if only a certain section of the page needs to be viewed or loaded (done with the help of Ajax).

HTML provides the basic structure for a website and it can be enhanced or stylized by the use of CSS. HTML makes use of tags to identify different types of content and the purposes they each serve to the web page. With the use of HTML, you can add a heading, make lists, create links and insert images in the web page. .Net is a framework which is widely used to develop applications and it can work with several programming languages like C#, VB.NET and C++. In our application, we have used C# which is an object-oriented programming language that makes the development of application easy and increases the productivity of applications.

.Net supports many pre-defined libraries that has supported many data structures which makes it easy to write code and develop the application.

ASP.NET is used in .NET framework to make web pages. It makes use of HTML, CSS and JavaScript to create a web page. The web pages made with ASP.NET are faster as compared to others as the applications are compiled, which means that the code is translated into object code and then it is executed. The compilation process only happens once and then it can be run again and again by the .NET platform.

The database supported with .NET is Transact-SQL and makes use of MSSQL server.

IV. WORKFORCE ACCUMULATION SYSTEM DESIGN

In this study, the web application is developed using .NET, HTML and JavaScript over the Visual Studio IDE. The database used is SQL and the connection between the website and the database is made using the MSSQL server.

The web applications consist of web pages for users and the workforce accessible through the home page. The user can register themselves and search for the required workforce. The workforce can register their details so that the user can track them and look for them.

The application uses Google API through which location can be viewed and a map can be plotted. This API is provided by Google itself to developers. The website made using JavaScript is interactive and user-friendly. The user and the workforce can access this web application using a browser and then can switch to their sections and provide necessary details for availing any service.

The user needs to log in and provides information regarding the type of workforce it is looking for and the location in which it is currently in. The location allows the locating of the workforce to be city specific. By registering themselves their details can be saved in the database and they do not need to register themselves again. They only need to log in with their user id and password and look for the services that they need.

On the other hand, the workforce needs to register themselves and get the job of their type easily. For those who are illiterate, they just need to upload a document having all their details and just click submit button. Their details will be saved in the database. Now, whenever the user needs to avail any service they can log in and search for the kind of service they are looking for through the use of our web application.

Workforce accumulation system will consist of a web portal in which the following tasks will be performed:-
1. There will be two options available at the login page. First will be for the sign up for the user and other for the workforce who wants to register themselves.
2. Sign-up for users will be done on a regular bases i.e. Login ID and Password.
3. Sign-up for the workforce can be done by providing details and those who are illiterate can choose a file and just submit their details.

For user Interface:-
➢ After the user has logged in, he/she has to select the type/category of the workforce.
➢ Next step is to determine the area under which the user wants the availability of the workforce.
➢ Now regular search will be performed over that area which would be on the bases of active location or last active location.
➢ Then the list of the available workforce will be generated and the user can then select accordingly.

For workforce/labour:-
➢ The desired person has to just open the link.
➢ Register themselves
➢ Then the project team will contact him/her.
➢ The details will be entered in the database and the labour will be registered.

V. SYSTEM IMPLEMENTATION

This part clarifies the philosophy chose in finishing this undertaking. A technique in this setting implies to the part of advanced work containing exercises with the objective of superior work. The methodology used in this study is known as the Evolutionary Prototyping model. This Prototyping technique enables to do development with the best-known requirement. It is an incremental approach through which development can be done in stages and inspection can be done at each stage.

The workforce accumulation system demonstrates that application can be developed in stages with the goal that it may be altered whenever there is any input from the client. As the prototype evolves over each sprint, the requirements are defined through prototype review meetings until enough work has been completed and the product owner has agreed to release the product. The procedure ensured agreement to building quality programming by methods for the continuous explanation of existing necessities and the revelation of beforehand absent or unavailable prerequisites .

VI. RESULT

The result for this application shows user can easily select the workforce by choosing location and type as seen in the

below figures. The location can be any city in India like Delhi, Mumbai, Chennai or Bangalore.

After selecting the location the user can select the type of labour he/she wants like Electrician, Plumber, Carpenter etc. After selecting this the map will be displayed showing the location and details of the workforce. The user can now select the workforce for the same. Figure 2 and 3 shows the type of the workforce and the location on the map respectively.
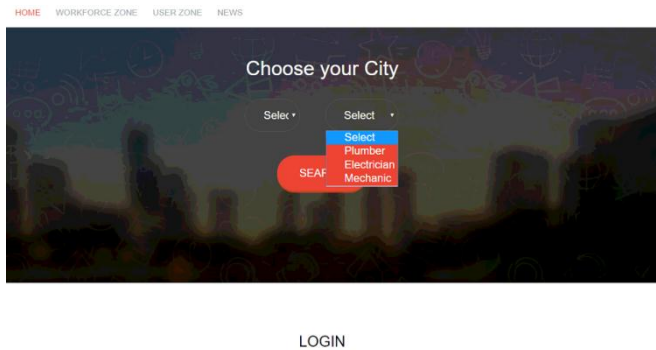

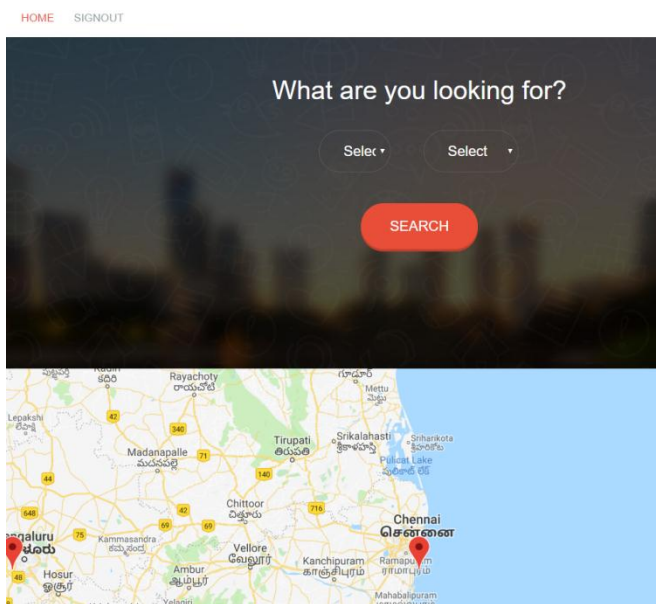Figure 2 : Choose the type of workforce and location

Figure 3 : Location of workforce on the map

VII.   CONCLUSION

The principal objective of this undertaking is to build a system to provide services to the user and employment opportunities to the labour. It can be concluded that a reliable, efficient, safe and fast workforce accumulation system has been developed which replaces the need for labour class to look for job manually which can now be done using this web application. This system saves time and energy of both the user and the labour.

No special hardware or software is required to access this web application. A person only needs a computer or a mobile and internet access on it. This can be accessed from anywhere as long as a person is connected to the internet.

Future work can be done in the system for illiterate people. Aadhar card scanner system can be implemented in this for those who cannot read or write. They only need to scan their Aadhar cards and their information will get automatically saved in the database.

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