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E-citizens: A web application for senior citizens

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ABSTRACT

The project titled “Web Application for senior citizens” is a web application which is created using PHP language, html, CSS and web frames. This web application is based on the senior citizens who usually live alone due to nuclear families and face day to day problems like getting medicines, needing drivers for going to places etc. This application actually helps the senior citizens by providing the details of the nearest facilities available. It stores the information of the people like contact numbers, name, fees and their work details as database. The database is created with the help of MySQL. This application will also contain the details of the online pharmacies, vegetable sellers, grocers, and restaurant’s details to help them get delivered things to their doorsteps. This application will be interactive, dynamic, and capable of fulfilling the needs of the senior citizens. Basically, it will be very user friendly. It will be developed using the three tier system of the PHP that is the client which will be the browser and the server will act as the second tier whereas the third tier will be the database for the users.

Keywords: Web Application, PHP language, MySQL.

1. INTRODUCTION

With the improvement of living standards and healthcare quality standards, the world has witnessed a steadily rising life expectancy. The global potential support ratio (the number of people age 15-64 per one older person aged 65 or older) has decreased from 12 in 1950, to 9 for today and is estimated to become 4 in 2050. The number of persons aged 80 or older is 1.6% of the population worldwide for today and is estimated to be 4.4% in 2050. In addition, one may expect to see substantial increase in demand for social care over the next 10-20 years, as the population grows older.

We can also expect to see substantial increases in demand for health care to older people. To this extent, one can expect a strong demand for Assistive Living Technologies - both to lower the unit costs of home care and to ease the tasks of informal carers, and sometimes to replace the latter with ICT artefacts and e-homecare.

Population ageing consists an unprecedented challenge for human societies, which may be moderated by recent advances in information and communication technology (ICT), aim at assisting the independent living of aged people, while keeping up quality of their life and their self-confidence. Examples of such ICT systems and/or services include those supporting the training of either mind (mental/cognitive), or body (physical), or other activities and/or raising certain alerts. However, recent research evaluating cognitively stimulating lifestyles and the effects on cognitive function in older adults of interventions targeting cognitive training, physical activity, social engagement, and nutrition supports overall positive effects of cognitive and physical activity, social engagement, and therapeutic nutrition in optimizing cognitive aging.

In the context of the, “E-Citizens:Web Application for Senior Citizens” the approach is to help the senior citizens by providing the details of the nearest facilities available. The emphasis of this piece of work is to fulfill the day to day requirements of the senior citizens. A web services-based platform for senior citizens is for the senior citizens who usually live alone due to nuclear families and face day to day problems like getting medicines, needing drivers for going to places etc. this application will provide them the details of the online pharmacies, vegetable sellers, grocers, and restaurant’s details to help them get delivered things to their doorsteps.

2. LITERATURE SURVEY

It also becomes very expensive to use. Thus this issue is resolved with a web application which is easily used and is quite effective and efficient and versatile for usage. It needn't require skills to operate and is affordable. The author in the SSN has described the issues in the life of the elderly people and have tried to develop the social network for the elderly people but they are not able to cater the needs of their day to day life and health [1]. Health care systems and resources are under the pressure of high quality services associated with the fast growing age or the fast aging population. [2] the idea by Andre Rodrigues describes the embedded system which helps with the mobility of the elderly people but it uses a lot of expensive equipment and that too with high level of technologies which makes it very difficult for the elderly or the senior citizen people to operate and make use of it.

The structure of societies is transforming due to unprecedented demographic changes [3]. One of the challenges faced in line with this is the changing interaction of older persons with information and communication technologies (ICT) and their attitude towards learning. Seniors (in most studies referred to as "50 years and older") show less participation both in ICT related activities and in training and learning activities compared with their younger peers. However, authors such as Iller [4] refer to upcoming new generations of older persons that have grown up in an environment characterized by continuous learning (mostly in informal settings). She prognoses a change in the proportion of older persons participating in learning activities in the near future, making it necessary for training providers to adapt to the changing groups of customers and their needs and habits.

In parallel all these groups are acquainted with ICT-based learning (both formal and informal learning settings) and increasingly articulate their interests in using new technologies for learning purposes. 8% of persons over 60 already learn by using electronic media [5]. Iller states that introductory courses on using the internet are often fully booked and there are waiting lists and the number of internet users over 60 is rapidly. Additionally, an emerging communication culture among seniors has been identified that aims at overcoming and compensating restrictions in mobility with the help of electronic media. It helps them keep in contact with friends, retrieve news, organise mail and legal papers, or do the shopping without leaving the house – all via the Internet [6].

The growing of developing more suitable learning settings for older persons is even more pressing considering the continuously rising number of persons participating in e-learning activities and the change of learning settings at workplaces. [7] There is a constant pressure in most business sectors to keep the know-how up-to-date in order to compete on the labour market. Most trainings for these learners (employees) are therefore focused on work-related issues.[8] Enterprises are most often creating their own learning cultures, training plans and offer active support from different sources (e.g. HR department) for further qualifications. Once they retire, a natural shift in interest as well as in purpose of learning is observable: personal interests, self-fulfilment and most importantly, social activities gain importance. On the other hand, the daily routine of "going to work" is interrupted and ties to that community tend to weaken. In such situations, learning is often used as a "tool" in order to maintain social contacts and the actual reason behind retired people enlisting to various courses.[9] Bluntly put, the actual courses can serve as pretext for bonding. Clearly, different approaches are needed for these learners.

The extent to which ICT is used by older adults is strongly influenced by the willingness of the target group to acquire the necessary competences. This willingness on the other hand is positively enhanced, if the system meets the requirements of the elderly [10].

Existing System

The web application for senior citizens are many but has only focused on the medical aspect of their life and those existing web applications have been on the medical measures which helps them in judging the medicines that has to be taken. It also has applications based on monitoring their blood glucose levels or exercise check or the body cholesterol check. But there is no existing system for the mobility check of the senior citizens and also for their day to day needs seeing the rise in the needs of the elderly people who are staying away from their children or who are living alone and who find it difficult to go from one place to another and thus they are in need of a support system.

Proposed System

In the e-citizens web application helps in ways to the senior elderly people as it helps them to find a driver wherever they want to travel or maybe getting vegetables and all the stuffs. After a certain age they are prohibited from driving and thus this application will be of a great help for them in carrying out their day to day activities. Thus, this project will also aim at the versatility of the application and will ensure that all the needs are catered and fulfilled for the elderly people in a very Effective and efficient way that too in a very affordable and cheap price.

3. SYSTEM ARCHITECTURE

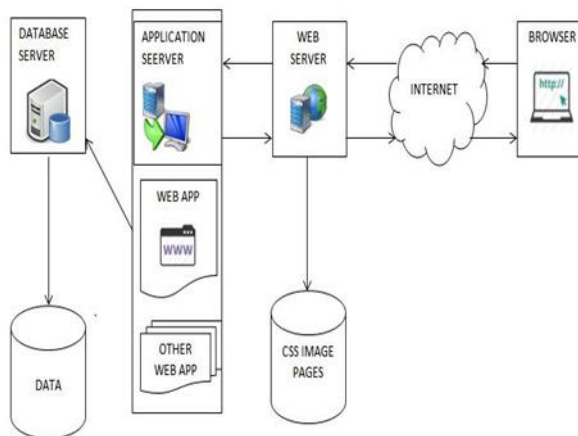


Fig 1: System Architecture

In the figure 1, the system architecture describes the modules and the flow of control of the whole system. Once the user login or registers to the application, it will basically access the internet from the browser for carrying out the task.

After the internet is accessed by the user, the control goes to the web server where the web server coordinates with the application server which consists the web applications data. The web applications then shifts the control to the database server to access the data which the user has asked for. The data is taken and then through the application server it is given to the web server and then the data and the details are displayed through internet to the user which is asked for.

Also, the web server access the css image pages to show the images and contents to the user on the browser.

4. MODULES

The modules of the web application consists of modules which represents its whole implementation structure. The modules consists of several modules like Login module, request acceptance module, database module which stores all the data and the broadcasting module which broadcasts all the details to the user who is accessing the application. It basically contains the login module which helps the user to register and give the information about themselves and register and if already registered they need to login with the username and the password. Thus these modules will play an important role in assembling all the major elements required in making a web application with such features and also the future enhancement and research will be done to make it more ease free to the users and also efficient and versatile.

A. LOGIN MODULE

The login module will contain the login page of the application which will help user to login to the application. It will ask for the username and the password. This is the login module. If there is a new user then the user has to register himself by filling in the details required.

B. REQUEST ACCEPTANCE

In this request acceptance module, the requests sent by the user of the application for the needs will be processed and the requests will be processed further with their choice of the drivers and thus they will able to travel to places without any hassle.

C. DATABASE MODULE

The database module will contain all the necessary data used for the application. In this database module, it will contain all the details about the drivers, the time of availability. It will also include their personal details like, their names, contact numbers and their fee structure. Thus whenever a request is received the control would be to the database where all the information is stored and the further process would be carried out.

D. BROADCASTING MODULE

This module is basically responsible for broadcasting the data stored in the backend and hence is an important module for the display of the data.

5. DATAFLOW DIAGRAM

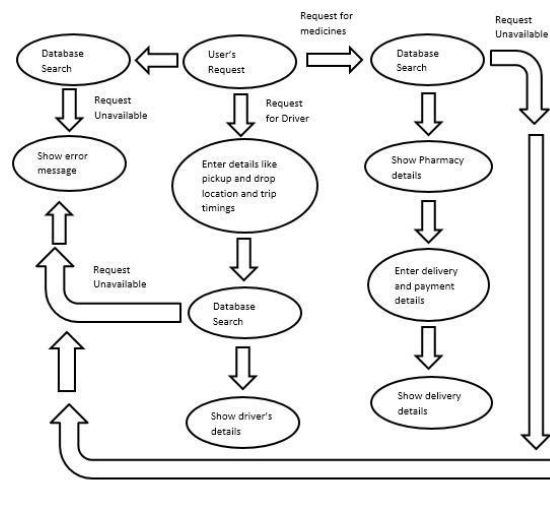


Fig 2: Flow Diagram

In the figure, the dataflow diagram is described and it gives a detailed explanation regarding the access of the database when the user gives a request in the application and its display to the user from the server. This helps us to understand the system much more better.

6. RESULT

Finally, the proposed model is implemented successfully. This paper elaborates and discusses the design of the system and the construction of the database and the application for the elderly people or the senior citizens. It provides an effective, user friendly and affordable way for helping the senior citizens. This system is very versatile, extendable and adjustable to the need of the users.

7. CONCLUSION

Thus, this web application will be of a great help for the senior citizens and will make their life easier. The web application will also make unemployed people engaged who can help the senior citizens and make money out of it. By the use of this web application all the requirements will be just one touch away for the elderly people. Thus, this application will help people in many ways and make the life of the people easier.

Future scope or enhancement of this project, e-CITIZENS: A web application for senior citizen focuses on the needs of the elderly people and thus this web application will be open to all the flexibilities. The application will see more features in security purposes and chat with the drivers in the application itself, if the driver call isn't reachable or some issue arises in the network. Thus in the seer future, these updates and enhancements are scheduled for this innovative project.

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