ONLINE VOTING SYSTEM

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Abstract— *Online voting system is a software or application developed using web technologies i.e., PHP and MySQL. This software or application can be used for conducting election process within various fields. With the help of this software, voters can vote to their respective candidate or party from the comfort of their home, just like it is done in traditional way, but here everything is online. Voters are required to register on online voting system in order to take part in online election process. Once the voter is successfully registered on online voting system, he or she can vote to particular candidate or party by just signing in. And the candidates or parties can monitor their voting status by signing in. So, in this way the online voting system works.*

Introduction

First, let's talk about existing voting system. In traditional voting system, voting booths are arranged in different places so that voters can come and vote. Now here a large space is required to setup voting booths and counters. Secondly, voters need to visit the place where voting booth is arranged. Sometimes, voters have to stand in a long queue until they reach their turn. Once the voting is done, election committee has to count all the votes by the manual process. So, this is a long and

lengthy process for both voters and election committee who is responsible for conducting elections.

Now let's talk about online voting system. As we discussed traditional voting system before, it is a time consuming, afford making, and lengthy process. Now we all know that with the help of internet, everything can be done online. For example: Money transfer, shopping, booking, teaching, data sharing, admissions, job search, etc. So, by taking the advantage of this opportunity, we are going to take this traditional voting system on an advance level. We are going to develop an online voting system where voting process can be done with the help of internet. Here voters can vote from the comfort of their home and candidates or parties can monitor their status from the comfort of their home. Voters are required to register on online voting system. Once they are successfully registered, they can sign in and vote for their respective candidate or party. In a same way candidate can sign in and monitor their status. This system will save a lot of time and energy.

Experimental setup

This application, online voting system, is based on two technologies which are available in software called XAMPP. It is an open-source free software developed by Apache friends. XAMPP software package contains Apache distributions for Apache server, MariaDB, PHP, and Perl. And it can be local host or server. It works on desktop or laptop. This software can be installed on your laptop or PC and test the clients or your website before uploading on the remote web server or computer. The full form of XAMPP is (X) stands for Cross-platform, (A) Apache server, (M) MariaDB, (P) PHP and (P)Perl. The Cross-platform usually means that it can run on any computer with any operating system.

So those two technologies are Apache Server and MySQL database. Apache server is an open-source free software and now it is maintained by Apache software foundation. Apache HTTP is a remote server(computer) if someone request files, images or documents using their browser they will serve those files to clients using HTTP servers. Mainly hosting companies use this application to create a VPS server and shared hosting for their clients.

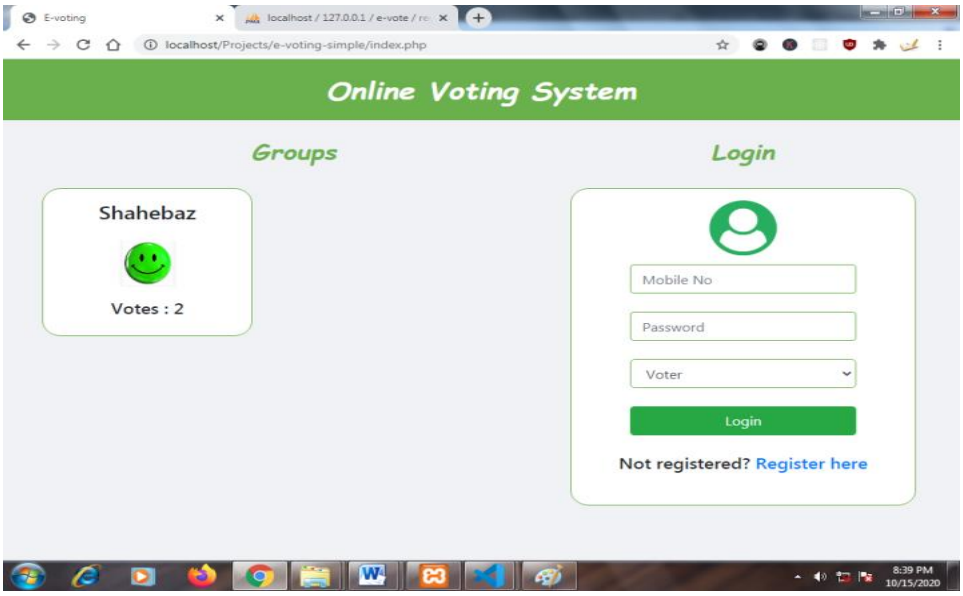
SQL(structured query language) this language is used to interact with relational database. And SQL, query is how to access the data. Using an SQL query, you can create and delete, or modify tables, as well as select, insert and delete data from existing tables. A software system which is used to maintain relational databases management system (RDBMS). Some of the examples of RDBMS are (SQ Lite, My SQL ,Oracle, DB).

Now let's talk about programming technologies or languages which are used in development this application. So, first of all, HTML (Hypertext Markup Language) is the basic language which is required to create any web application. Then CSS (Cascading Stylesheet) is a styling method used to style HTML elements like coloring, font, margin, etc. Third one is JavaScript. JavaScript is the language of browser. It is used perform activities that will be managed on browser, like animation, timer, alerts, etc.

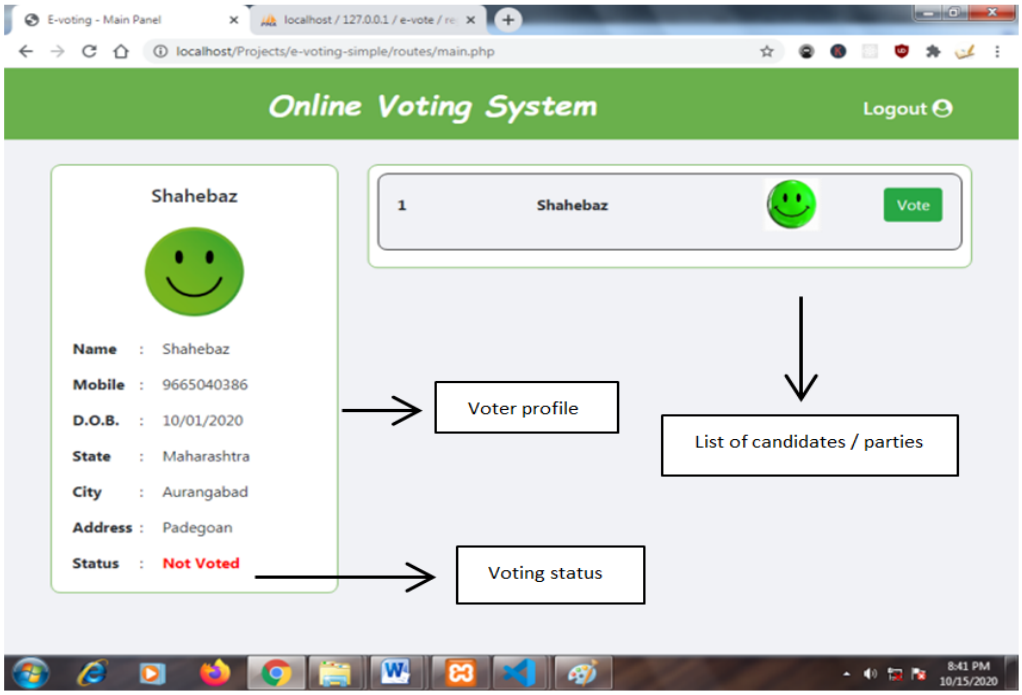
So, these are just front-end technologies, means they will help to render our application in browser. Now let's talk about backend technologies. There are two backend technologies used in online voting system.

PHP and MySQL database. PHP (Hypertext Preprocessor) is general purpose programming language that is mostly used to write backend codes. For example: Inserting data into database, fetching data, updating, deleting, login and registration functionality, etc. MySQL is a database that we discussed earlier. Below table shows software and hardware specifications.

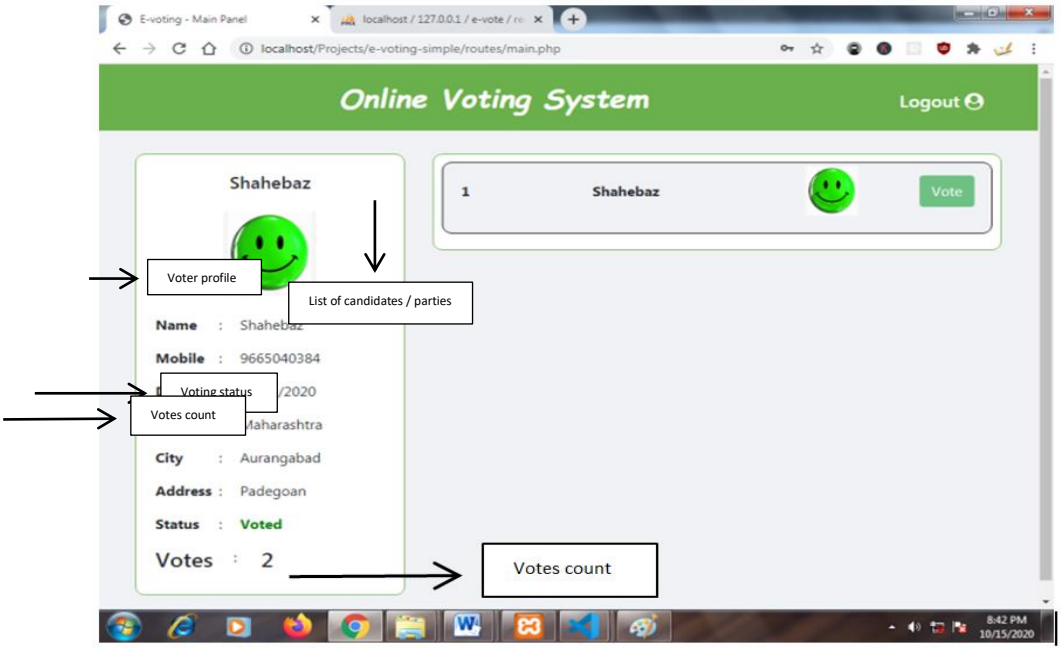
Operating System	Windows Vista or later, Window 7, 8, 10, MacOS
Processor	Dual core or later
Software required	XAMPP
Software size	156 MB for Windows, 150 MB for Mac



Homepage & login



Voter dashboard



GROUP/PARTY DASHBOARD

ADVANTAGES

Time saving. Time is the most important factor in any system. With the help of this online voting system, lot of time will be saved because election committee is not required to manage huge space and voting booths in different places. This system will work online and everyone can access it from the comfort of home.

Cost saving. A lot of cost is required to setup up machinery of voting booths. When there is no machinery, no equipment, no physical interference, then there will be no cost at all. So, this system will save a lot of cost.

Energy saving. From setting up election campaign to votes counting, tremendous amount of man power is required. But here there is no physical interference. All you have to do is using internet from the comfort of home.

CONCLUSION

So firstly, we talked about traditional voting system. Then we discussed about proposed system that is online voting system. So we come to know that online voting system is going to be far better if we compare it with the traditional voting system. So, this proposed system has far better.

REFERENCES

[1]. Das, A. (2015). Usability of the electronic voting system in India and innovatory approach, International Journal of Applied Science and Engineering Research, 2015, 4(5), 633-642.

[2]. Thakur, S., Olugbara, O., Millham, R.,Wesso, H. & Sharif, M. (2014). Transforming voting paradigm the shift from offline through online to mobile voting, In 2014 IEEE 6th International Conference on Adaptive Science & Technology (ICAST), 2014, (pp. 1-7). IEEE

[3] S.M, Jambhulkar, Prof. Jagdish B. Chakole, Prof. Praful. R. Pardhi "A Secured Approach for Web Based Internet Voting System using Multiple Encryption", 2014 International Conferenee on Electronic Systems, Signal Processing, and Computing Technologies, 2014

[4] S. sridaran,Implementation of authenticated and secured online voting system: International conference on computing, communications and network technologies(ICCCNT),PP-1-7,2013[1]

[5] Mr.M Sanjai, Dr. R Umamaseshwars, " An effective and securable online voting system"Vol 5, April 2018[2].

[6] Ashwini Walake, Prof. Ms, Pallavi Chavan, "Efficient Voting system with (2,2) Secret Sharing Based Authentieation", (IJCSlT) International Journal of Computer Science and Information Technologies, Vol. 6 (1), 2015, 410