A

MAIN PROJECT REPORT

On

**DYNAMIC RESOURCE ALLOCATION USING VIRTUAL MACHINES FOR CLOUD COMPUTING ENVIRONMENT**

*Submitted in the partial fulfillment of the requirements*

*for the award of the degree in*

**BACHELOR OF TECHNOLOGY**

In

INFORMATION TECHNOLOGY

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**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled **" Online Voting System "** being submitted by **Vishal maan , Gedela Bangaru Naidu , N.Sunil Roll-no’s – 12H51A05H8 , 12H51A05D9 , 13H55A0519** in partial fulfillment for the award of **Bachelor of Technology in Computer Science and Engineering** is a record of bonafide work carried out under my guidance and supervision.

The results embodies in this project report have not been submitted to any other University or Institute for the award of any Degree.

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**ABSTRACT**

This project deals with voting for your party from touch of your mobile .

This project aims for the betterment of public service and manages India’s

most complicates system of voting . The project is time efficient and allows

People of India to vote from their home . Basic idea of online voting is

Reducing the rush on voting days , reducing wastage of time . This project is new phase of controlling votes . Present system is slow and in order to make it fast and reliable this application will allow users to save a lots of time and is reliable .

**CHAPTER-1**

**INTRODUCTION**

**CHAPTER-1**

**INTRODUCTION**

* 1. **Purpose**

In “Online voting system “ a user whoever wants to vote for a party will can vote to it using an android application . No voter will have to stand in line for their turn to vote .A voter can easily vote from this app and his information will be stored in the database . An android app connected to the server will allow the user to directly vote for the interested party . Main purpose of this project is to reduce the wastage of time and money spent on elections . No more worry about standing in queues . Voters can vote to any party which they like without any external pressure of parties . This way votes will not be partial and reduces lot of resources used during elections .

* 1. **Scope**

The scope of the project is that hosted on the server. There is a DATABASE which is maintained in which all the names of voter with party selected and party list is stored

* 1. **Technologies to be used**
* The project will be a android application based on php and mysql.
* Front end – Android
* Back end – php
* Data base – MySql

**1.4 Overview**

* Project is related to Online Voting System.
* The project maintains database of parties list and users
* Main facilities available in this project are:-
  + - Maintaining voter’s Identification.
    - Providing online voting management.
    - Providing Updation of voter’s information.
  + Voter can give his\her vote from any part of India.

**CHAPTER-2**

**BACKGROUND**

**CHAPTER - 2**

**BACKGROUND**

**2.1 Background**

PRESENT VOTING SYSTEM is a voting system by which any Voter can use his\her at specified voting centers only.IT contains-:

* Voter’s information in boxes of voting pages .
* Voter’s Names with ID.
* Calculation of total number of votes is done by machines and humans.
* Use Electronic Voting Machine

**About Android :-**

**Android** is a mobile operating system (OS) currently developed by Google, based on the Linux kernel and designed primarily for touchscreen mobile devices such as smartphones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touchscreen devices, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on notebooks, game consoles, digital cameras, and other electronics.

As of 2015, Android has the largest installed base of all operating systems (including most popular in Europe by a large margin since 2013). For tablets only, iOS is most popular, while Android is even to it on the Asian and South Americancontinents and is dominant on the African continent.

Initially developed by Android, Inc., which Google bought in 2005,Android was unveiled in 2007, along with the founding of the Open Handset Alliance – a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices.As of July 2013, the Google Play store has had over one million Android applications ("apps") published, and over 50 billion applications downloaded.An April–May 2013 survey of mobile application developers found that 71% of developers create applications for Android, and a 2015 survey found that 40% of full-time professional developers see Android as their priority target platform, which is comparable to Apple's iOS on 37% with both platforms far above others. At Google I/O 2014, the company revealed that there were over one billion active monthly Android users, up from 538 million in June 2013.

Android's source code is released by Google under open source licenses, although most Android devices ultimately ship with a combination of open source and proprietary software, including proprietary software required for accessing Google services.  Android is popular with technology companies that require a ready-made, low-cost and customizable operating system for high-tech devices. Its open nature has encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects, which add new features for advanced users or bring Android to devices originally shipped with other operating systems. At the same time, as Android has no centralised update system most Android devices fail to receive security updates: research in 2015 concluded that almost 90% of Android phones in use had known but unpatched security vulnerabilities due to lack of updates and support. The success of Android has made it a target for patent litigation as part of the so-called "smartphone wars" between technology companies.

**2.2 Drawbacks**

PRESENT VOTING SYSTEM in Inida is not efficient , because of following reasons

* Use of electronic machines , which contains list of parties is not reliable .
* It takes long amount of time to vote for a use .
* Very slow , because there is a particular voting center defined in the place , and everyone will have to go their to vote .
* Direct or indirect Impact on city traffic and schools and colleges .
* Requires a lot of man power to handle all the process .

**CHAPTER-3**

**BACKGROUND WORK**

**CHAPTER-3**

**BACKGROUND WORK**

**3.1 Goals of proposed system**

1. **Planned approach towards working: -** The working in the organization will be well planned and organized. The data will be stored properly in data stores, which will help in retrieval of information as well as its storage.

2. **Accuracy: -** The level of accuracy in the proposed system will be higher. All operation would be done correctly and it ensures that whatever information is coming from the user is accurate.

3. **Reliability:** - The reliability of the proposed system will be high due to the above stated reasons. The reason for the increased reliability of the system is that now there would be proper storage of information.

4. **No Redundancy: -** In the proposed system utmost care would be that no information is repeated anywhere, in storage or otherwise. This would assure economic use of storage space and consistency in the data stored.

5. **Immediate retrieval of information: -** The main objective of proposed system is to provide for a quick and efficient retrieval of information.

6. **Immediate storage of information: -** In manual system there are many problems to store the largest amount of information.

7. **Easy to Operate: -** The system should be easy to operate and should be such that it can be developed within a short period of time and fit in the limited budget of the user.

And can be accessed by anyone with a android mobile .

**3.2 Background**

ONLINE VOTING SYSTEM is a voting system by which any Voter can use his\her voting rights from any where in India. ONLINE VOTING SYSTEM contains-:

* Voter’s information in database.
* Voter’s Names with ID.
* Voter’s vote in a database.
* Calculation of total number of votes.

Various operational works that are done in the system are:-

* Recording information of the Voter in Voter database.
* Checking of information filled by voter.
* Discard the false information.

**3.3 Project Requirements**

**Hardware Requirements**

**(Android Mobile *)-*** Min Android version – 4.0 “Ice Cream Sandwich”

**Software Requirements**

**(E-Voting Application –On Android *)***

**(Windows with Wamp Server*)***

**3.4 User Characteristics**

Every user should be:

* Comfortable with Internet Browser.
* He must have brief knowledge of voting system.
* He must also have basic knowledge of English too.

**3.5 Constraints**

* GUI is only in English.
* Login and password is used for identification of Voter.

**3.6 Definitions of problems**

**• *Not User Friendly*: The existing system is not user friendly because the retrieval of data is very slow and data is not maintained efficiently.**

**• *Difficulty in report generating*: We require more calculations to generate the final result so it is generated at the end of the session. And the voter not get a single chance to change his\her vote.**

**• *Time consuming*: Every work is done manually so we cannot generate report in the middle of the session or as per the requirement because it is very time consuming.**

**CHAPTER-4**

**DESIGNING**

**CHAPTER-4**

**DESIGNING**

**4.1 Software Requirement Specification**

***4.1.1 Objective:***

The main objectives of system for ***Online voting system*** are:

* The objective of **Online voting system** is to help the organization in automating the whole manual processing of the existing system.
* The main objective to develop the system is to make the accurate & efficient decisions in different tasks at different time at different situations. The existing system is manual so members of the unit generally face a lot of embarrassing situations many times. Now they need to automate the whole process so as to make it more easy and accurate.
* System should support multi-user environment.
* System should be fully automated.
* System should provide concrete security features like creating users and assigning privileges to users .
* System should be capable to keep track of all the detailed descriptions of the client and the whole details of services offered by the client organization.
* Various outputs (reports) should be available online any time.
* System should be able to handle extremely large volumes of data (i.e. Large database support)

***4.1.2 Scope:-***

1. **Advanced technology**- It is an advanced technology used now a days. It increases the E knowledge of the users which is very necessary for current generation.
2. **Internet:** It is an online facility and hence very useful for the users.

Voters can vote from any where at any time in India.

1. **Authentication:** Using php at server we can send the error report to a particular user if he\she entered false information.

***4.1.3 Advantages:***

* Fast and easy service.
* The online voting system provides a less time consuming .
* It reduces the paper work and makes the work less tedious for Voting System
* It is a better way for voting.
* By this voting percentage will increase drastically.
* Voter has no need to go to any polling booth ,so it is easy to use
* Voting will become unbiased

.

***4.1.4 Technologies to be used:-***

This project will be a Android application to be developed in Android Studio having

* Database Design (My SQL)
* Frontend Design (Android)
* Coding (PHP)
* Testing (WAMP SERVER)

***4.1.5 Overview:-***

***1. Requirements:***

***FUNCTIONAL REQUIREMENTS:***

* Registration of the voter is done by Database Running on Wamp Server.
* Administrator can change the information any time if required.
* Registration of the Voter depends upon the information filled by the user.
* Voter is given a unique session for voting
* In the DATABASE information of every voter is stored.
* Database shows the information of every user.

**• NON-FUNCTIONAL REQUIREMENTS:**

1. Secure access of confidential data .
2. 24 X 7 availability.
3. Better component design to get better performance at peak time.
4. Flexible service based architecture will be highly desirable for future extension

***2. Project Requirements***

**Hardware Requirements**

**(Android Mobile – min v 4.0 (Ice Cream Sandwich*)***

**Software Requirements**

**(E-voting android application – Android Phone*)***

**(Wamp Server Running on your server – System *)***

***3. Software interface:***

• Client on Internet: Android App, Operating System (Android)

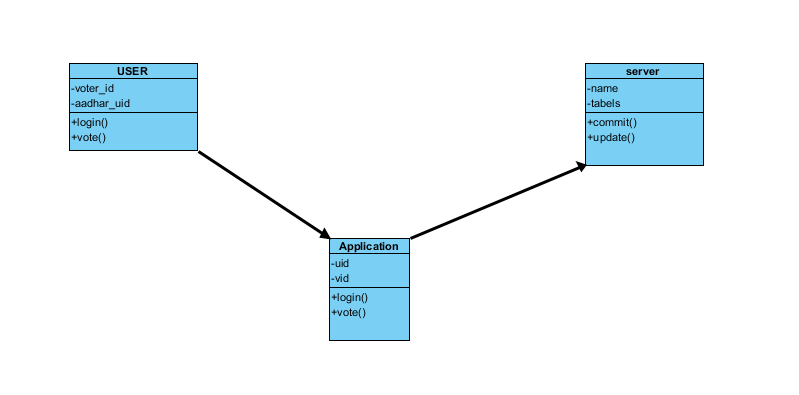
• Client on interaction: php , Operating System (Windows).

• Web Server: WAMP Server, Operating System (Windows)

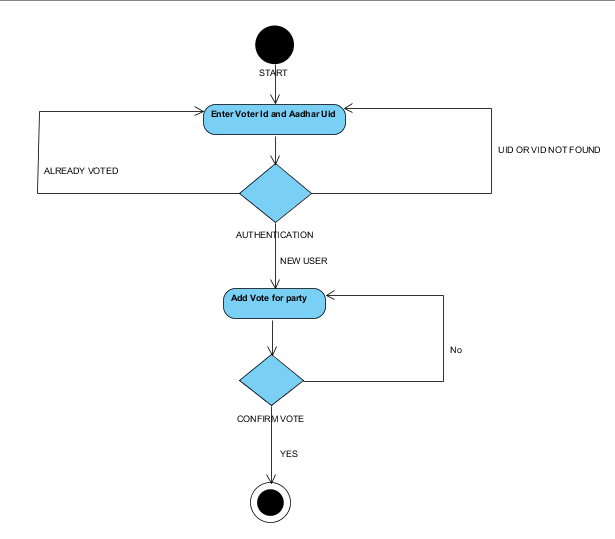
• Data Base server: MYSQL, Operating System (Windows).

**DIAGRAMS**

1. ***Class Diagaram:***

******

1. ***Activity Diagram:***

******

1. ***Data Flow Diagram***

Administrator

Voter

Final

Result

Voting process

Voter Registration

Information checking

administrators

Login Process

Login

voter data stored data voting data final result

SERVER

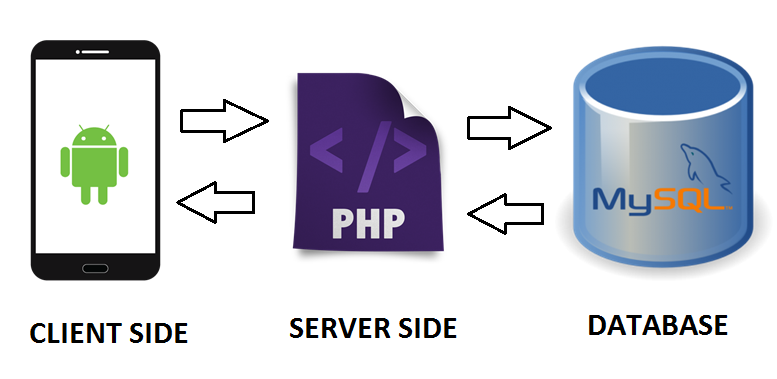
**CHAPTER-5**

**COMMUNICATION**

**CHAPTER-5**

**COMMUNICATION**

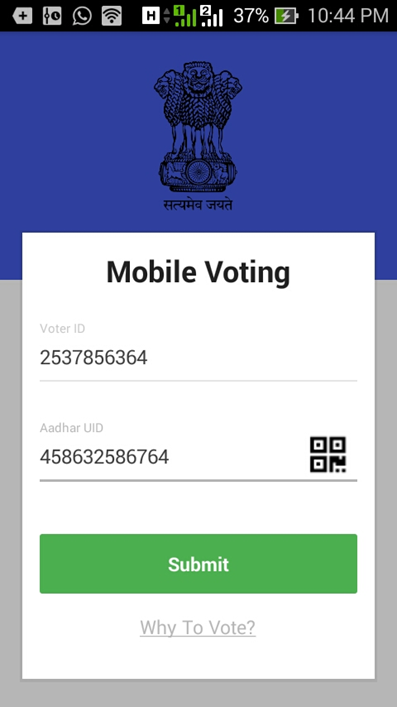
1. ***CONNECTION BETWEEN APP AND DATABSE :***



The above diagram shows how the actual connection is taking place between your android mobile and database . The mobile will allow to send data to the server using php script , which is server side scripting language . Now again after fetching the request from database , php will allow the user to receive and send data from or to the server .

This is how connection takes place . And data is transferred between user and server .

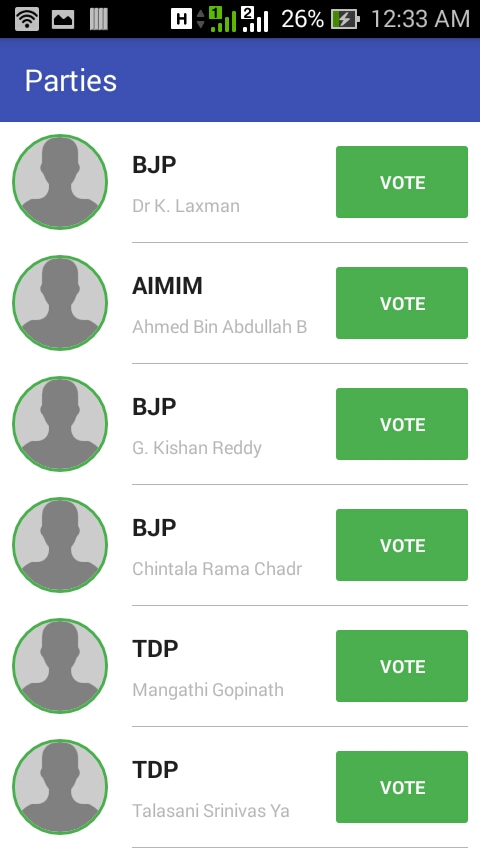
1. ***FRONTEND :***



This is how our app looks . This is the front end part from where user will interact and data will be transferred according to the use selection .

This contains 2 Fields to be filled , which are Voterid and Aadhar uid . User will enter these details and then he will proceed to submit button .

We have a php running at the server side , which will take care of all the authentications and will provide a user with next page . This is how this 1st page of app works , by allowing or discarding the permissions to the users and taking care of authentication .



If a user is authenticated and allowed by the php script checking for no duplication and security of app , then the user will land on this activity screen . It is list of the parties , provided to a user to vote , whenever a user pushes that vote button , user will get a confirmation of whether you want to vote or not for the party . As soon as you click to vote for a party , It will automatically take you out to the 1st signing page . To maintain the consistency and accuracy to maintain the security .

***FRONTEND [CODE (Android) ] :***

* Party List







1. ***BACKTEND :***

We use php as our server side script .

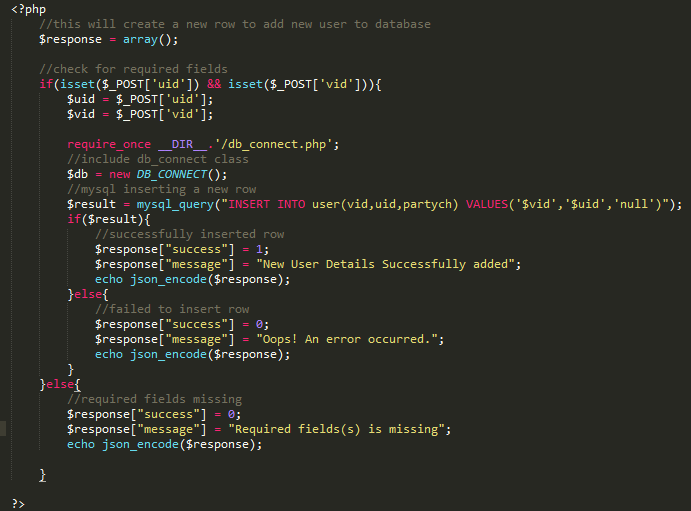
We have following tables for interaction

• auth\_user (For authenticating user )

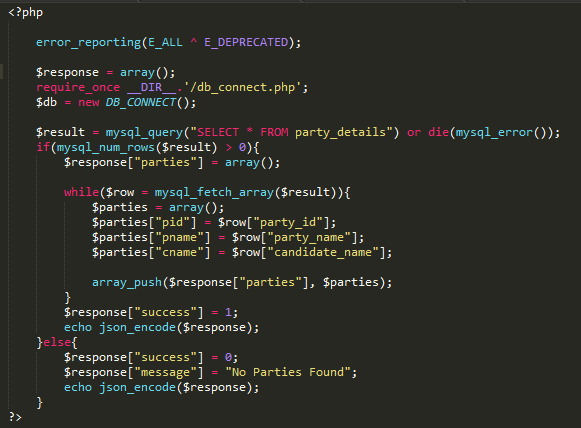
• get\_all\_parties (to get all the parties for voting )

• add\_vote (For adding vote to a particular party )

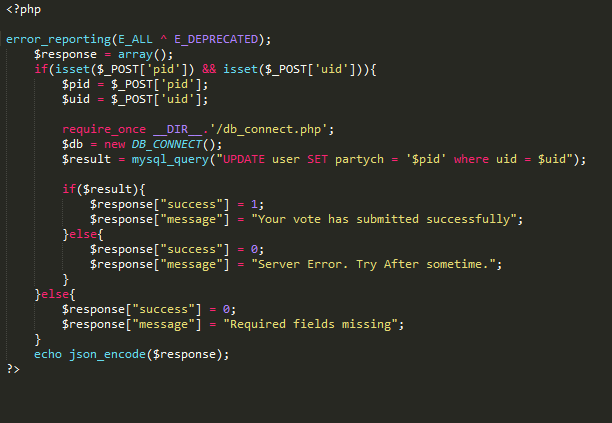
* Auuth\_user



* get\_all\_parties



* add\_vote



1. ***BACKEND***

In backend part , we are using mysql for managing databse . We are using wamp server for providing storing for database values and retrieving values when needed . We user mysql for storing data into tables , and for query purpose .

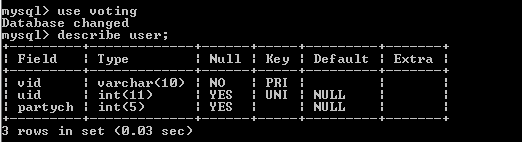
Wamp server can be accessed from web browser by typing localhost . In that if we go to phpmyadmin we can see the whole structure of database .

We have two tables stored at our database named “voting”

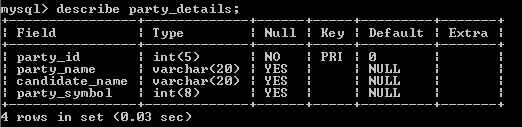
• user

• party\_details

* User Table



* Party Details Table



**CHAPTER-6**

**DISCUSSION**

**CHAPTER-6**

**DISCUSSION**

Depending on the results of the initial investigation the survey is now expanded to a more detailed feasibility study. Feasibility is a test of system proposal according to its workability, impact of the organization, ability to meet needs and effective use of the resources. It focuses on these major questions:

1. What are the user’s demonstrable needs and how does a candidate system meet them?

2. What resources are available for given candidate system?

3. What are the likely impacts of the candidate system on the organization?

4. Whether it is worth to solve the problem?

During feasibility analysis for this project, following primary areas of interest are to be considered. Investigation and generating ideas about a new system does this.

Steps in feasibility analysis

Eight steps involved in the feasibility analysis are:

* Form a project team and appoint a project leader.
* Prepare system flowcharts.
* Enumerate potential proposed system.
* Define and identify characteristics of proposed system.
* Determine and evaluate performance and cost effective of each proposed system.
* Weight system performance and cost data.
* Select the best-proposed system.
* Prepare and report final project directive to management.
  1. ***Technical feasibility***

A study of resource availability that may affect the ability to achieve an acceptable system. This evaluation determines whether the technology needed for the proposed system is available or not.

* Can the work for the project be done with current equipment existing software technology & available personal?
* Can the system be upgraded if developed?
* If new technology is needed then what can be developed?
* This is concerned with specifying equipment and software that will successfully satisfy the user requirement. The technical needs of the system may include:

**Front-end and back-end selection**

An important issue for the development of a project is the selection of suitable front-end and back-end. When we decided to develop the project we went through an extensive study to determine the most suitable platform that suits the needs of the organization as well as helps in development of the project.

The aspects of our study included the following factors.

**Front-end selection:**

1. It must have a GUI that assists employees that are not from IT background.

2. Scalability and extensibility.

3. Flexibility.

4. Robustness.

5. According to the organization requirement and the culture.

6. Must provide excellent reporting features with good printing support.

7. Platform independent.

8. Easy to debug and maintain.

9. Event driven programming facility.

10. Front end must support some popular back end .

According to the above stated features we selected ANDROID as the front-end for

developing our project.

**Back-end Selection:**

1. Multiple user support.

2. Efficient data handling.

3. Provide inherent features for security.

4. Efficient data retrieval and maintenance.

5. Stored procedures.

6. Popularity.

7. Operating System compatible.

8. Easy to install.

9. Various drivers must be available.

10. Easy to implant with the Front-end.

According to above stated features we selected MY SQL as the backend.

The technical feasibility is frequently the most difficult area encountered at this stage. It is essential that the process of analysis and definition be conducted in parallel with an assessment to technical feasibility. It centers on the existing computer system and to what extent it can support the proposed system.

***6.2 Economical feasibility***

Economic justification is generally the “Bottom Line” consideration for most systems. Economic justification includes a broad range of concerns that includes cost benefit analysis. In this we weight the cost and the benefits associated with the candidate system and if it suits the basic purpose of the organization i.e. profit making, the project is making to the analysis and design phase.

The financial and the economic questions during the preliminary investigation are

verified to estimate the following:

* The cost to conduct a full system investigation.
* The cost of hardware and software for the class of application being considered.

. The benefits in the form of reduced cost.

* The proposed system will give the minute information, as a result the

performance is improved

* This feasibility checks whether the system can be developed with the available funds. The **Online voting system** does not require enormous amount of money to be developed. This can be done economically if planned judicially, so it is economically feasible. The cost of project depends upon the number of man-hours required.

***6.3 Operational Feasibility***

It is mainly related to human organizations and political aspects. The points to be

considered are:

* What changes will be brought with the system?
* What organization structures are disturbed?
* What new skills will be required? Do the existing staff members have these

skills? If not, can they be trained in due course of time?

The system is operationally feasible as it very easy for the End users to operate it. It only needs basic information about Android Mobile platform.

***6.4 Schedule feasibility***

Time evaluation is the most important consideration in the development of project. The time schedule required for the developed of this project is very important since more development time effect machine time, cost and cause delay in the development of other systems.

A reliable **Online voting system** can be developed in the considerable amount of time

**CHAPTER-7**

**CONCLUSION**

**CONCLUSION**

This Online Voting system will manage the Voter’s information by which voter can login and use his voting rights. The system will incorporate all features of Voting system. Its provide the tools for maintaining voter’s vote to every party and it count total no. of votes of every party. There is a DATABASE which is maintained in which all the names of voter with complete information is stored.

In this user who is stored in database and when he/she want to vote he/she has to login by his Voter id and AAdhar uid and can vote to any party only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is increases. It decreases the cost and time of voting process. It is very easy to use and It is vary less time consuming. It is very easy to debug.

**CHAPTER-8**

**BIBLIOGRAPHY**

**CHAPTER-8**

**BIBLIOGRAPHY**

[1] I have studied about Android , PHP , MySQL these were the main source in working of Application .I have also used Apache Server and MySQL to store the data in database.

In the making of report i got a lot of help from websites

The sources are:-

* [*www.php.net*](http://www.php.net)
* [*www.w3schools.com*](http://www.w3schools.com)
* [*www.google.com*](http://www.google.com)
* [*www.developer.android.com*](http://www.developer.android.com)

[2] I have also used some software:-

* WAMP Server
* Android Studio

***APPENDIX – A***

***USER MANUAL***

* ***Requirement of Tools:***

This application is mounted on the Localhost, to user has to make sure that the Mobile, which he is using the application , is connected to Server through hotspot Wi-Fi .

* ***How to use the application*:**

To use the application the user has open the Android app in android mobile . Then, user gets the Login Page of the Application . And after entering correct details user will be forwarded to party list to vote for .