



**Daffodil**  
*International*  
**University**

**Final Project Documentation**

**On**

**Digital Election Campaign**

**Course Code: SWE-332**

**Course Name: Software Engineering Project- II**

Submitted to:

Name: Faysal Mazed

Lecturer, Daffodil International University

Department: Software Engineering

Mirpur Road, Dhaka 1207, Bangladesh

Submitted by:

Majharul Islam Towsif ID: 171-35-1846

Maharshi Biswas ID: 171-35-1959

Section: E

Mirpur Road, Dhaka 1207, Bangladesh

Submitted Date: 12.04.2020

## Approval

## Acknowledgement

At first, we are blessed as successfully moved towards the 10<sup>th</sup> semester. We are pleased to our almighty. First of beginning of university life, we have learned a lot about software engineering as well as computer science related knowledge from my university knowledgeable teachers and helpful big brothers. Teachers teach us ethics, morality and politeness as well as software knowledge and related knowledge. We must be thankful to our parents and our family for give us the opportunity and always be to our self. Our family always support us. Our family prioritize our inspired and opinion as well.

We are grateful to our teacher **Mr. Faysal Mazed** for allowing us for doing development the project. Sir supports to make these project Blood bank & Donor Management System.

## Contents

<b>Chapter-1 .....</b>	<b>Error! Bookmark not defined.</b>
<b>Introduction .....</b>	<b>Error! Bookmark not defined.</b>
1. Project Overview .....	<b>Error! Bookmark not defined.</b>
1.1 Project purpose .....	<b>Error! Bookmark not defined.</b> 1
1.1.1 Background .....	<b>Error! Bookmark not defined.</b> 2
1.1.2 Benefits & Beneficiaries.....	2
1.1.3. Goals.....	3
1.2 Proposed System.....	4
 <b>Chapter-2.....</b>	<b>95.</b>
2.1 Scenario.....	6
2.1 Feasibility Study .....	7 <b>Error! Bookmark not defined.</b>
2.2 Economic Feasibility .....	12
2.3 Technically Feasibility.....	13
2.4 Schedule Feasibility.....	13
2.5 Time Estimation .....	<b>Error! Bookmark not defined.</b>
2.6 Budget Estimation .....	<b>Error! Bookmark not defined.</b>
<b>Chapter-3 .....</b>	<b>Error! Bookmark not defined.</b>
3.1 Software Requirement Specification .....	<b>Error! Bookmark not defined.</b>
3.1.1 Functional Requirements.....	<b>Error! Bookmark not defined.</b>
3.2 Data Requirements.....	<b>Error! Bookmark not defined.</b>

3.3.1 Performance.....	19
3.3.2 Reliability & Availability Requirements.....	20
3.3.3 Access Requirements .....	<b>Error! Bookmark not defined.</b>
3.3.4 Privacy Requirement.....	<b>Error! Bookmark not defined.</b>
3.3.5 Capacity requirements.....	17
3.4 Main ability & Supportability.....	21
3.4.1 Maintenance Requirements .....	22
3.4.2 Supportability Requirements.....	<b>Error! Bookmark not defined.</b>
3.4.3 Adaptability requirements.....	23
3.5 Security requirements.....	24
<b>Chapter 4 .....</b>	<b>25</b>
4.1 Introduction.....	26
4.2 Purpose.....	26
4.3 System Overflow.....	26
4.4 High Level Design.....	26
4.4.1 Design Map.....	27
4.4.2 Use case Diagram.....	28-30
4.4.2.1 Use Case Description.....	34-37
4.4.2.2 System Activity Diagram.....	38-44
4.4.2.3 Sequence Diagram.....	45-47
4.4.2.4 Class Diagram.....	48
4.4.2.5 ER Diagram.....	49
4.4.2.6 DFD Diagram.....	50-51

## Chapter 5

User Interface.....	52-57
---------------------	-------

## Chapter-1

### INTRODUCTION

#### 1. Project Overview

The digital realm is one of the most important political battlegrounds for winning votes on a massive scale. In a time where political campaigns are increasingly contentious and expensive, candidates focused on reaching the right voters at the right time, campaign teams are relying heavily on digital advertising, and more specifically social media. Political campaigns are about strategy and reaching the right voter with the right message. With any form of advertising, targeting is consistently part of strategy creation. But in today's digital world, politicians and their campaigns can obtain and analyze engagement data to ensure the right campaign message is being tailored and delivered to the right demographic. This can also be done at relatively little to no cost to the campaign. Also, politicians are able to see and hear voters' reactions and opinions about policy ideas and visions. This is extremely useful to improve positioning messages.

#### 1.1. Project purpose

In modern representative democracy, election is considered as the most significant way of the producing and promoting democracy. To successfully accomplish the electoral process, manifold group, such as political parties, and citizen participate in political activities. However, this practice is evolving over times, and in modern world, digital media has emerged in electoral participation. Bangladesh with a skyrocketing Number of cyber dwellers is not logging in the race. In the last decades, an apparent paradigm shift has taken place, and prior public sphere has become digitalized. We will use the "Digital Election Campaign" software to solve this problem electoral process and reach lot of voters within a second.

### 1.1.1 Background

The internet has given people unprecedented access to information about elections and enabled them to express their opinions, interact with candidates and get actively involved in electoral campaigns. The internet is also a useful platform for political parties to present their agenda to the electorate and to mobilized a larger support base for their causes. The cost of communicating with voters can be substantially lower via this medium than via broadcast media, given the availability of free blog and video sharing platforms and social media. Small political parties with limited resources and independent candidates in particular can benefit from this type of communication. However, the changes in the production and consumption of election-related content also raise a number of concerns. In recent years, a growing number of researchers have raised questions about the potential impact of the internet, especially social media, on electoral choices. In the abovementioned poll social media platforms have been found, especially among the young population, to have a considerable impact.

### 1.1.2 Benefits & Beneficiaries

Our system would be beneficiaries and also benefits for some of point. We are mentioning those below:

- Fair: to prevent improper influence (and ensure the independence of parties) on political decisions through financial donations.
- Clean: to ensure all political parties have an opportunity to compete in line with the principle of equal opportunity, and
- Clear: To provide for transparency in expenditure of political parties.
- Spending limits & campaign finance controls.
- Subsidies for campaigning communications
- Rules on political advertising including impartiality, subsidies and free air time
- Admin can be monitoring the electoral candidates
- Admin can upload their information about details information.
- The voters can see and visit the election candidates profile.

### 1.1.3 Goals

The overarching objective of campaign regulation is to protect the integrity of elections, ensure they are free and fair, and not captured by a narrow range of interests. Rules seek to do this in two ways: on one hand they attempt to facilitate the opinion formation process in society by helping ensure that each citizen has access to a balanced range of views and opinions. On the other hand, they limit the role of money in the electoral process, through for example limits on political advertising and campaign spending. Campaign finance is considered a form of beneficial speech but can be problematic particularly if parties and campaigns depend on a small number of large donations. These policy objectives are achieved through a combination of media law, election law and international human rights standard.

There are 3 types of stakeholders in our “Digital Election campaign” system. Such as:

- Admin
- Election candidates
- Voters

Write a brief description about stakeholders:

**Admin:**

- The Admin can see all of candidates who created.
- The Admin can see candidates’ information including name, plan, area and budget for voters.
- The Admin can see how much candidates created profile.
- The Admin can remove any candidates profile
- The Admin can post news and code of conduct laws that is important for voters.



**Candidates:**

- The candidates reach lot of people within a second.
- The candidates can spread their information and plan for area.
- The candidates' voters review.

**Voters:**

- The voters can see each and every candidates profile ad their plan for them
- The votes can that who obey the electoral law.
- The voters can choice their suitable candidates.

## 1.2 Proposed System

Despite advances in technology, today's Political advertising controls have formed an important part of the regime that seeks to guard democracy against capture by money. However, this must be balanced with rights to freedom of expression. Broadcasting in contrast to press and online media has been subject to detailed regulation of political campaigns. Firstly, license requirements require impartiality in political matters, for many television and radio channels specific codes are applied and these pay particular attention to election and referendum periods. Secondly broadcasters are required to exercise restraint in publication of opinion poll findings and also enforce quiet periods prior to election day. We want to made this Digital Election Campaign systems web based application using HTML, CSS, JavaScript, Python with Django framework. With two type of features Code of Conduct and Emergency call section. Where voter's penetration and observe who actually maintain the electoral laws. Another crucial features that if happened any political conflict anywhere then voters or candidates can call any law enforcing agency and take help, this project aims to determine how to campaign through online large voters.

## Chapter-2

### 2.1 Scenario

Scenario is a process used during requirement analysis to describe the use of system.

Scenario is a story about System scenario explains an early stage of system.

The scenario of this system is given below:

The system provides Digital election campaign documentation. There are three types of users. First, Admin; Second, Election candidates and Voters;

The following table shows the brief description about different users with their level.

Users	Type	Description
Admin	(Admin-Level1)	<p>Admin totally control whole system. Such as</p> <ul style="list-style-type: none"> <li>a) Add, update, delete and view customer information.</li> <li>b) Add, update, delete and view employee information.</li> <li>c) Admin performs and</li> </ul>

		<p>monitoring all election related operation</p> <p>d) Admin will get notification when any candidates create profile in this site</p>
Election candidates	(Candiddates-Level2)	<p>Election candidates can add their information including election campaign like constituency plan for people.</p>
Voters	(User-level3)	<p>Voters can view the all election candidates and visit their campaign.</p>

1. Pre-analysis
  - a. Scenario
  - b. Requirement Collection
2. Analysis
  - a. Voters Requirement Specifications (VRS)
  - b. Software Requirement Specifications (SRS)
3. Design
  - a. High Level Design (HLD)
  - b. Detail Level Design (Detail Level Design)
4. Implementation
  1. Code.
  2. Logical Design
  3. Physical design
6. System Test
  - a. System Test Report (STR)
  - b. Software Development Completion Report (SDC)

## 2.2 Feasibility Study

In this document of Digital Election Campaign, we are also conduct some feasibility study to determine the viability of this idea such as ensuring whether the project is legally and technically feasible as well as economically feasible.

## 2.3 Economic Feasibility

Economic feasibility is analysis of a project's cost or revenue to determine whether it is logical and possible to complete.

No training cost needed for using this system because we will try to make this system user friendly. As this system is being developed with respect candidates and voter's t so we may get some fund from any organization for publish the system entirely. Therefore, the project is economically feasible. We also prepare a budget estimation chart for evaluating the proposed system.

## **2.4 Technically Feasibility**

Technical feasibility analysis considers the technical requirements of the proposed system such as software, facilities, procedure. HTML, CSS, Python and Django framework can be used to develop the project. We can also apply some procedure or framework for developing the project such as Django framework. We use the agile prototype to complete this project.

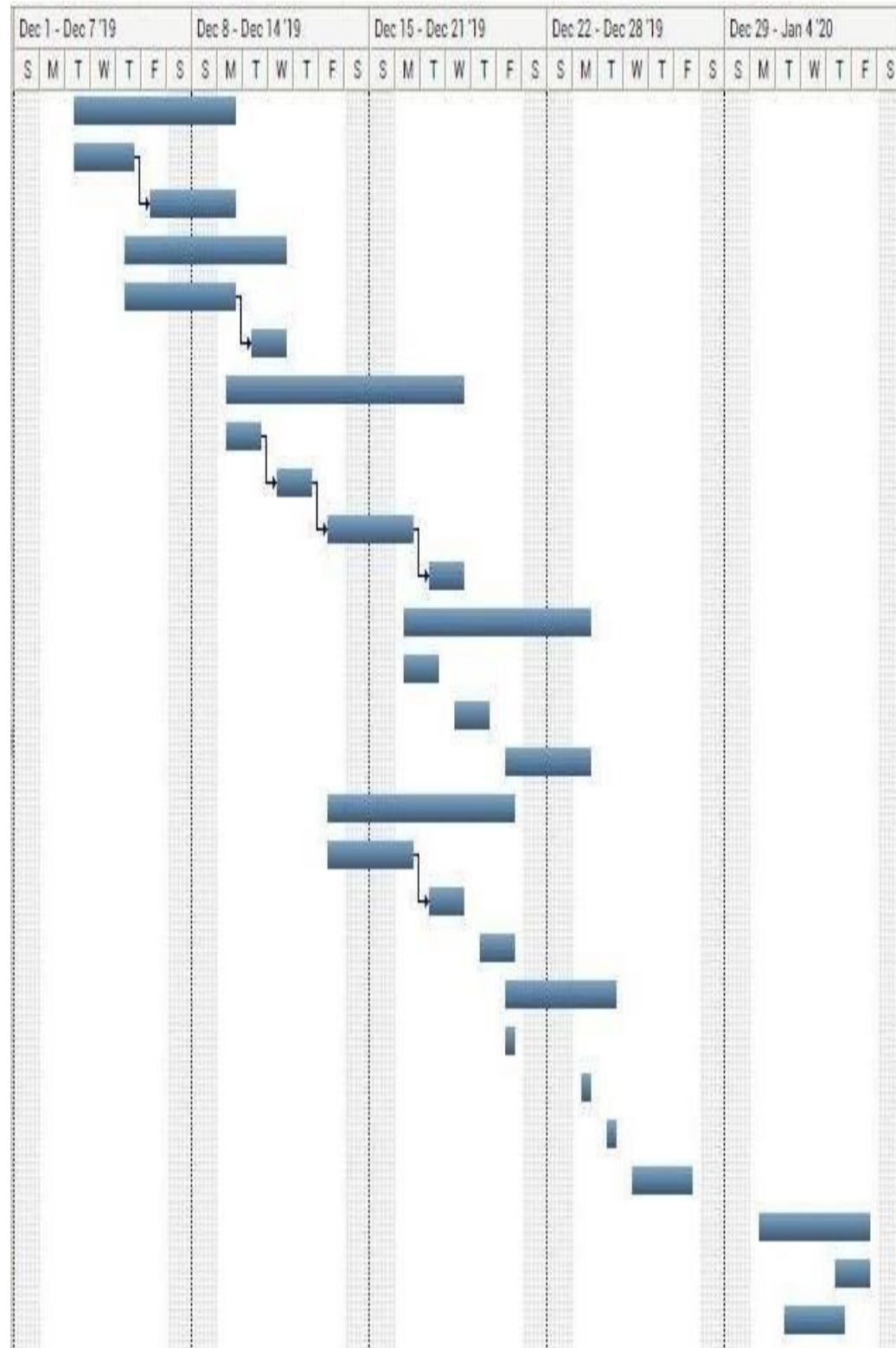
Therefore, this system is technically feasible because it's internal technical capability sufficient for the current technical resources.

## **2.5 Schedule Feasibility**

Schedule feasibility is analysis the estimated time required for the whole project. We also prepared time estimation chart, which ensure that the project can be complete before the project become obsolete or unnecessary.

## 2.6 Time Estimation

	Name
1.	Registration
2.	Email Verification
3.	Check password strength
4.	Login
5.	Username & password
6.	Session & cookies
7.	Admin
8.	Order message
9.	See donor activities
10.	See people ranking
11.	See problems
12.	Voters
13.	Get order message
14.	See problems
15.	Other activity
16.	General people
17.	Problems
18.	Feedback
19.	See candidates profile
20.	Feasibility study
21.	Economic
22.	Technical
23.	Schedule
24.	Database design
25.	Testing
26.	Release
27.	Maintenance



## 2.7 Budget Estimation:

WBS items	Units/ hours	Cost/ unit/ hours	Sub totals	WBS level 4 of totals	% of total
1.Project Management					
1.1 Project Manager	400	\$100		\$20000	25.6%
1.2 Developer					
1.2.1 Registration				\$5500	4.9%
1.2.1.1 Email Verification	50	\$110	\$2800		
1.2.1.2 Check Password Strength	40	\$90	\$1800		
1.2.2 Log in				\$4500	3.9%
1.2.2.1 User name & Password	50	\$90	\$2700		
1.2.2.2 Session & Cookies	30	\$90	\$1800		
1.2.3 Admin				\$12900	11.3%
1.2.3.1 Order/Message	80	\$45	\$3350		
1.2.3.2 See Donor Activity	70	\$50	\$3000		
1.2.3.3 See People Ranking	100	\$40	\$3200		
1.2.3.4 See Problems/Applications	80	\$45	\$3350		
1.2.4 Donor				\$9550	8.4%
1.2.4.1 Get Order/Message	110	\$40	\$3200		
1.2.4.2 See Problems/Applications	80	\$50	\$3000		
1.2.4.3 Other activities	90	\$45	\$3350		
1.2.5 General People				\$8850	7.7%
1.2.5.1 Problems/Applications	70	\$45	\$3350		
1.2.5.2 Feedback	50	\$55	\$2750		
1.2.5.3 See Donor Place	60	\$55	\$2750		
2.Hardware				\$4100	3.6%
2.1 Computer	110	\$20	\$2000		
2.2 Server	60	\$40	\$2000		

2.3 Printer	100	\$1	\$100		
3.Software				\$4575	3.9%
3.1 Windows	510	\$15	\$75		
3.2 Tools	160	\$30	\$4500		
4.Testing	600	\$30		\$15000	13%
5.Training & Support	1000	\$10		\$10000	8.7%
6.Reserver (30%)				\$22994	20%
<b>Total Project Cost Estimation</b>				<b>\$148989</b>	<b>100%</b>

## 2.8 Requirement Collection:

Requirements gathering are an essential part of any project and project management. Understanding fully what a project will deliver is critical to its success. This may sound like common sense, but surprisingly it's an area that is often given far too little attention.

Many projects start with the barest headline list of requirements, only to find later the customers' needs have not been properly understood.

One-way to avoid this problem is by producing a statement of requirements. This document is a guide to the main requirements of the project. It provides:

- A succinct requirement specification for management purposes.
- A statement of key objectives - a "cardinal points" specification.
- A description of the environment in which the system will work.
- Background information and references to other relevant material.
- Information on major design constraints.

Finally, ensure you have cross-referenced the requirements in the statement of requirements with those in the project definition report to ensure there is no mismatch.



The functional requirements describe the services provided by system in detail, the inputs and outputs, expectations and so on. The functional requirements define the facilities to be provided by the system.

The non-functional requirements are not directly concerned to the system. They may define constraints on the system and specify system performance, security, availability and emergent properties.

## **1. 2.9Associate Review**

Associate review process should be in place in any software development organization as a significant defect removal activity. Associate reviews are included in the Software Engineering Institute's Capability Maturity Model Integration (CMMI®) [3] as a required process for those organizations following the CMMI as a guide for process improvement. Associate reviews are especially valuable as a way to remove defects early in the development cycle and should be performed on all major software development work products including requirements, design, code, and test procedures. The software inspection method of performing associate reviews is generally considered the most effective method of performing associate reviews [2] and is an indisputable software engineering best practice. Other types of associate reviews that are practiced with varying degrees of formality are team reviews, walkthroughs, and pair programming. Once associate reviews are an established practice, the data from each associate review can be used for defect management. For this purpose, the following data from each associate review are recommended to be collected

In software development, associate review is a type of software review in which a work product is examined by its author, in order to evaluate its technical content and quality.

The purpose of associate review is to provide a disciplined engineering practice for detecting and correcting in software artifacts.

The tactics that are used to elicited requirements are as follows:

- Discuss with Candidates: Election candidates can campaign through this site. They can add their all of information considering election campaign.
- Observation: Some of requirements collected from our observation different type exiting system
- Brain Storming: Some of collected in our analysis of reading and self-study
- Supervisor feedback: Some requirements are selected by analysis requirements and weekly meeting with project supervisor MR. Faysal Mazed, Lecturer Department of Software Engineering. Then we discuss with company owner about those selected requirements.

## **2. Requirement analysis**

Requirements analysis, also called requirement engineering, is the process of determining user expectations for a new or modified product. These features, called requirements, must be quantifiable, relevant and detailed in software engineering, such requirements are often called functional specifications. Requirement analysis is an important aspect of project management. The requirement analysis is divided into three phases. The phases are given below:

### **Requirement Discovery**

Requirements discovery includes those techniques to be used by systems analysts to identify or extract system problems and solution requirements from the user community. Concerns are identified through discussion with the principal stakeholders. These are typically the client and the developer. The stakeholder principal concerns for the system. The requirements, elicited from the set of different viewpoints will be documented and analyzed in the next stage of the process. Requirement discovery is the process to gathering requirements about the proposed system. The source of the information is to learn related system, identifying the stakeholders and interviewing them. I have collected some requirements from some following.

**Requirement list:**

1. Login for all user. (firstly a admin was created by database administration)
2. Select MP election (Easy to upload details information of individual candidates and they can add their campaign related information)
3. Select City corporation election (Easy to upload details information of individual candidates)
4. Select Local Govt. election (On the other hand, it is easy to upload details information of individual candidates.)
5. Code of Conduct (Here, all of electoral are available for candidates and voters)
6. New (In this section, lection campaign relates news and magazines will be available)
7. Emergency Call (Here, all of emergency call information will be available.)

## Chapter-3

### 3.1 Software Requirement Specification

**3.1.1 Functional Requirement(FR):** The Functional Requirements Specification is designed to be read by a general audience. Readers should understand the system, but no particular technical knowledge should be required to understand the document.

<b>FR-01</b>	<b>Login</b>
<b>Description</b>	It is a necessary process for users. Without login or without authentication a user cannot use this application. So before access this application a user must need to login.
<b>Stakeholders</b>	Candidates, Voters, Admin

<b>FR -02</b>	<b>Select MP election</b>
<b>Description</b>	This module to helps Member of parliament election candidates to upload and their all of information including their personal information, constituency, ambition and future plan for people. Then voters can views their activity.
<b>Stakeholders</b>	Candidates, Voters, Admin

<b>FR -03</b>	<b>Select City Corporation election</b>
<b>Description</b>	Meaning of this part is, City corporation election candidates to upload and their all of information including their personal information, constituency, ambition and future plan for people. Then voters can views their activity.
<b>Stakeholders</b>	Candidates, Voters, Admin

<b>FR -04</b>	<b>Select Local Govt. election</b>
<b>Description</b>	This module to helps Local Govt. election candidates likes upozela chairmen, vice chairmen, mayor, commissioners, union council and members can to upload and their all of information including their personal information, constituency, ambition and future plan for people. Then voters can views their activity.
<b>Stakeholders</b>	Candidates, Voters, Admin

<b>FR -05</b>	<b>Code of Conduct</b>
<b>Description</b>	In this module, all election related law and regulation are mention so that any types of election candidates can read ad obey the law to campaign properly.
<b>Stakeholders</b>	<b>Candidates, Voters</b>

<b>FR -06</b>	<b>News</b>
<b>Description</b>	This section is for news and magazine. Both candidates and voters can read this section for increase their knowledge and take update.
<b>Stakeholders</b>	<b>Voter, Candidates</b>

<b>FR- 07</b>	<b>Emergency Call</b>
<b>Description</b>	This module helps to get information is for news emergency call. Both candidates and voters can read this section for increase their awareness and take helps if happen anything illegal and wrong.
<b>Stakeholders</b>	<b>Voter, Candidates</b>

### 3.2 Data Requirements

The first step in gathering system data is to determine what data is required for building the model. It is best to go from general to specific in gathering system data.

Defining data requirements for need to build a model. Our system maximum data would be loaded form internal user. For this because we need to focus some kind of major points. Such as:

- Types of entity of the system
- Route data locations
- Capacity and resources of the data requirements
- Data source sequence
- Data availability schedules
- Quantity of data

**3.3 Non Functional Requirement(NFR):** The flexibility of current frameworks encourages system architects to enable reconfiguration mechanism that refocus the available, safe resources to support the most critical services rather than over providing to build failure proof system.

#### **Reliability and Availability**

<b>NFR-01</b>	The System must be available 24x7
<b>Description</b>	<ul style="list-style-type: none"><li>• The system must be available 24 hours in a day.</li><li>• The system must be updated regularly.</li><li>• The system must be published notice.</li><li>• How well the application system consistently performs the specified functions without failure</li></ul>
<b>Stakeholders</b>	Admin, Candidates

#### **Maintenance Requirement**

<b>NFR-02</b>	The system helps to update any information in any time.
<b>Description</b>	The admin and Candidates can post any event and can enable to change or update any information in any time.
<b>Stakeholders</b>	Admin, candidates



### Access Requirements

<b>NFR -03</b>	The system provide security strategies
<b>Description</b>	The System is designed in way that allows all modules to access a mechanism that provides security services .
<b>Stakeholders</b>	Admin

### Usability

<b>NFR-04</b>	The system provide usability strategies
<b>Description</b>	how well the data are maintained by the application system in terms of accuracy, authenticity, and without corruption.
<b>Stakeholders</b>	Admin

### Privacy Requirements

<b>NFR-05</b>	All data will be protected.
<b>Description</b>	The main requirement in the context is the generation of Tourist data for analysis.
<b>Stakeholders</b>	Admin, Candidate, Voter

### Capacity Requirements

<b>NFR 7</b>	Initially the system will store 100000 candidates information
<b>Description</b>	The information of candidate, admin will be stored in database.
<b>Stakeholders</b>	Admin, candidate

### 3.4 Maintainability and Supportability

Supportability is the degree to which system design characteristics and planned logistics resources meet system requirements. Supportability is the capability of a total system design to support operations and readiness needs throughout the life-cycle of a system at an affordable cost.

#### 3.4.1 Maintenance Requirements

<b>MS-01</b>	The system helps to update any information in any time
<b>Description</b>	It is very important to update security system by sudden time period.
<b>Stakeholder</b>	All types of system user
<b>Priority</b>	High

#### 3.4.2 Supportability Requirements

Supportability requirements may have related to some extends. Like:

- Testability
- Extensibility
- Adaptability
- Maintainability
- Compatibility
- Configurability
- Serviceability
- Install ability

#### 3.4.3 Adaptability Requirements

There are no adaptability requirements in our system software.

### 3.5 Security Requirements

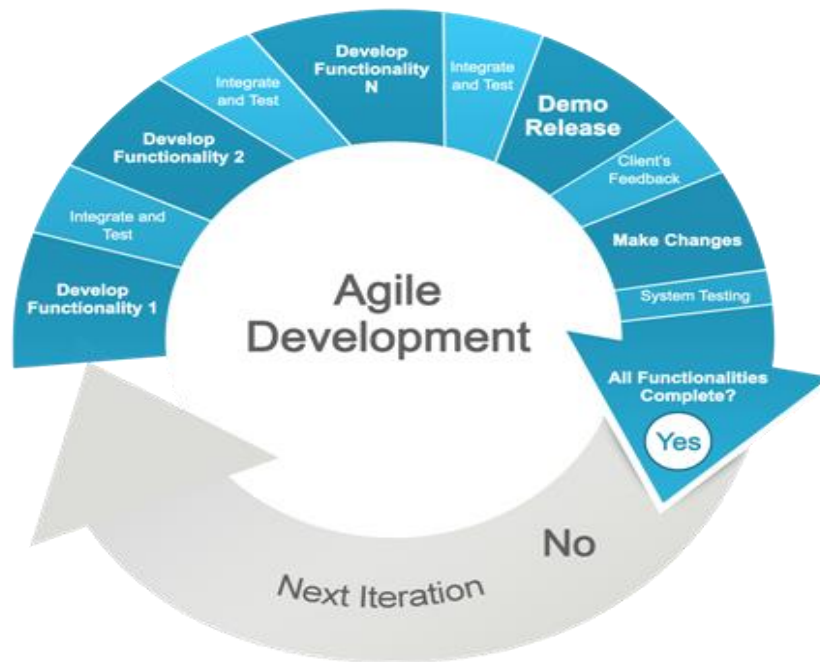
Software security is very much important for making software. Requirements of software security is very important. As all types of user's information maintenance system all kind of data is sensitive and authentic. Enforces of security of an application system of the software security. We write some security related requirements is given below:

- Signing multiple users in one platform
- Get accesses according to logged in user
- Set points to the drivers without having any issue.

### 3.3 Process Model

A process model is an abstract representation of a software process. Each process model represents a process from a particular perspective, and thus provides only partial information about that process. Some common process models are

- The waterfall model
- Evolutionary development
- Component-based software engineering
- Iterative development process
- Agile development methodology



**Figure 01: Agile model**

### **Agile Development:**

Agile methods grew out of the real life project experiences of leading software professional that had experienced the challenges and limitation of traditional waterfall development on project after project. Agile development, in its simplest form offers a lightweight framework for helping teams, given a constantly evolving functional and technical landscape, maintain a focus on the rapid delivery of business value .as a result of this focus and its associated benefits, organizations are capable of significantly reducing the overall risk associated with software development.

In particular, agile development accelerates the delivery of initial business value, and through a process of continuous planning and feedback, is able to ensure that **value** is continuing to be maximized throughout the development process. As a result of this iterative planning and feedback loop, teams are able to continuously align the delivered software with desired business needs, easily **adapting** to changing requirements throughout the process.

By measuring and evaluating status based on the undeniable truth of working, testing software, much more accurate **visibility** into the actual progress of projects is available. Finally, as a result of following an agile process, at the conclusion of a project is a software system that much better addresses the business and customer needs.

**Scheduling & Planning:** Software development plan with target time is given below:

Phase	Start Date	Planned Submission Date	Working Days
Project Plan	25 January, 2020	10 February, 2020	15
Project Idea Sharing	12 February, 2020	16 February, 2020	4
Requirements collection	18 February , 2020	24 February, 2020	6
Proposal	25 February, 2020	28 February, 2020	3
Requirements Analysis	02 March, 2020	10 March, 2020	8
Software Requirements Specification	12 March, 2020	18 march, 2020	6
Design	20 March, 2020	26 March, 2020	6
Develop and Prototype Implementation	27 March, 2020	10 April, 2020	12
Testing & Result	10 April, 2020	12 April, 2021	2
Total Working Days: 62 days			

**Table 04: Scheduling& Planning**

## **CHAPTER -4**

### **SYSTEM DESIGN**

#### **4.1 Introduction**

Software design is a process to transform user requirements into some suitable form, which helps the programmer in software coding and implementation.

For assessing user requirements, an SRS (Software Requirement Specification) document is created whereas for coding and implementation, there is a need of more specific and detailed requirements in software terms. The output of this process can directly be used into implementation in programming languages.

Software design is the first step in SDLC (Software Design Life Cycle), which moves the concentration from problem domain to solution domain. It tries to specify how to fulfill the requirements mentioned in SRS.

Software design is the process of implementing software solutions to one or more set of problems. The software design (SDS) document contains a statement of the design of inventory management system. The design contains an explanation of a way to carry out each of the product specification written in the Software Requirement Specification (SRS). The design will serve as a guide to the developer. The SDS also shows how the program is separated into modules, how the modules interact with each other, and how users see the program.

## 4.2: Purpose

This document is designed to be a reference for any person wishing to implement, or any persons interested in the design architecture of account management system. This document describes each application's architecture of design interface of logical interface and physical interface design. This design will detail the implementation of the requirements as defined in the automated bus ticket booking system specification design.

## 4.3 System Overflow

This document includes but is not limited to the following information for Blood bank & Donor management system; system overview, design consideration, architectural strategies, system architecture, high level design detailed level design .High level design context diagram and use case diagram and detailed level design consist of data flow diagram level 1 and Entity relationship diagram .

## 4.4 High level Design (HLD)

High Level Software Design is also called Software Architecture the first design step after analyzing all requirements for software. The goal is to define overall software structure which fulfills the requirements (mainly functional requirement) [6]. The diagrams that represent the high level design of system given bellow.

#### 4.4.1 Design Map:

The design map of our system and their user access level:

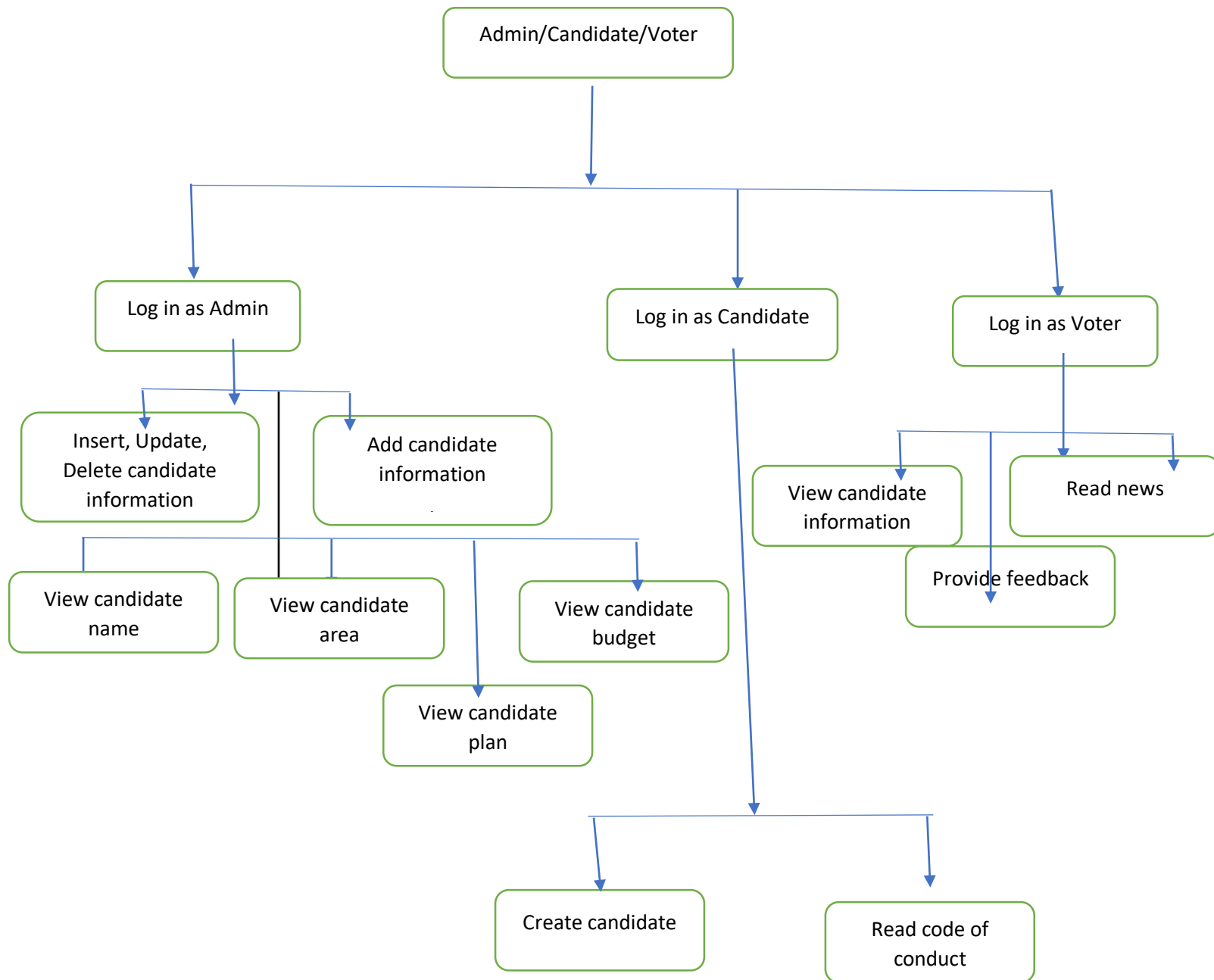
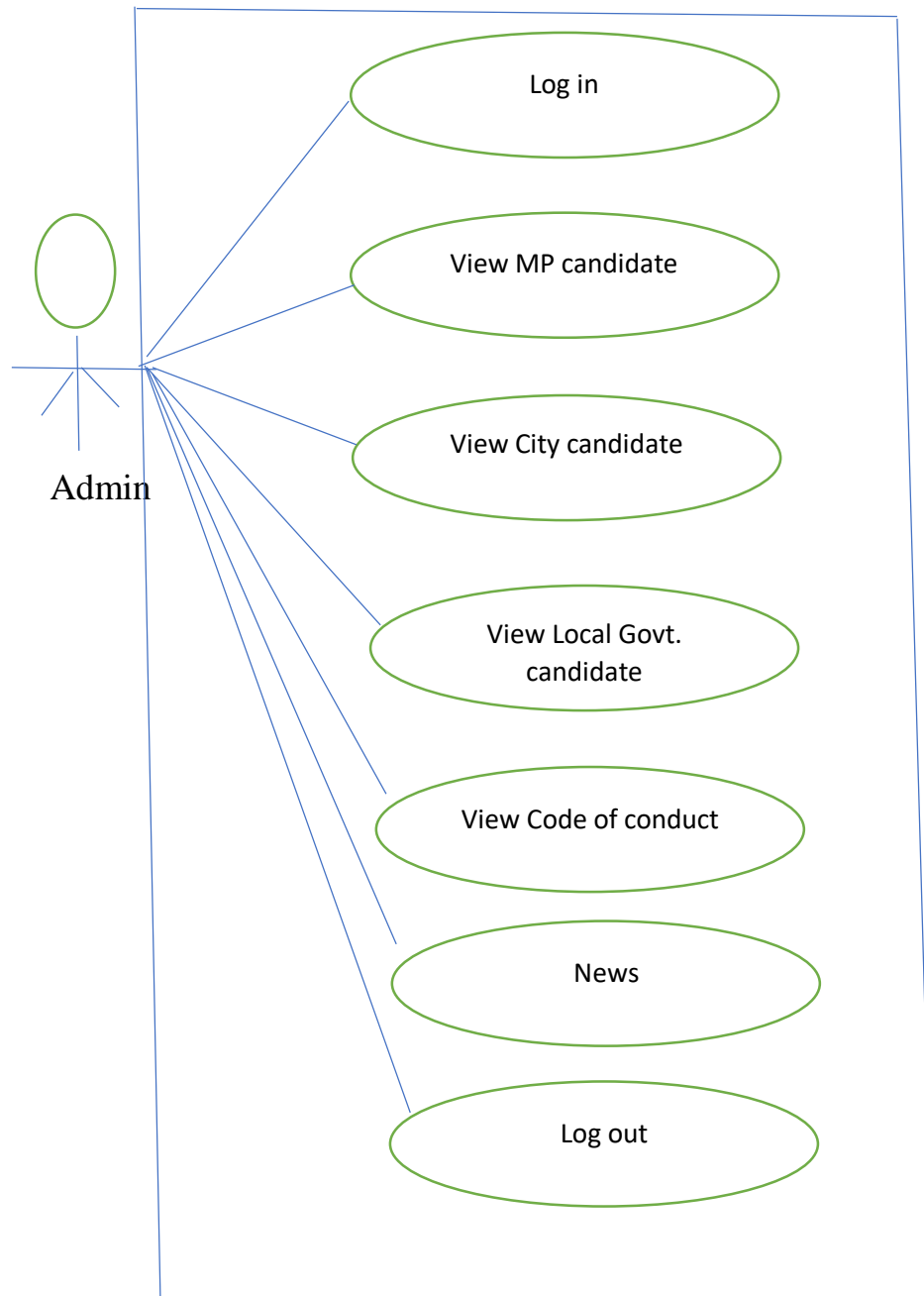


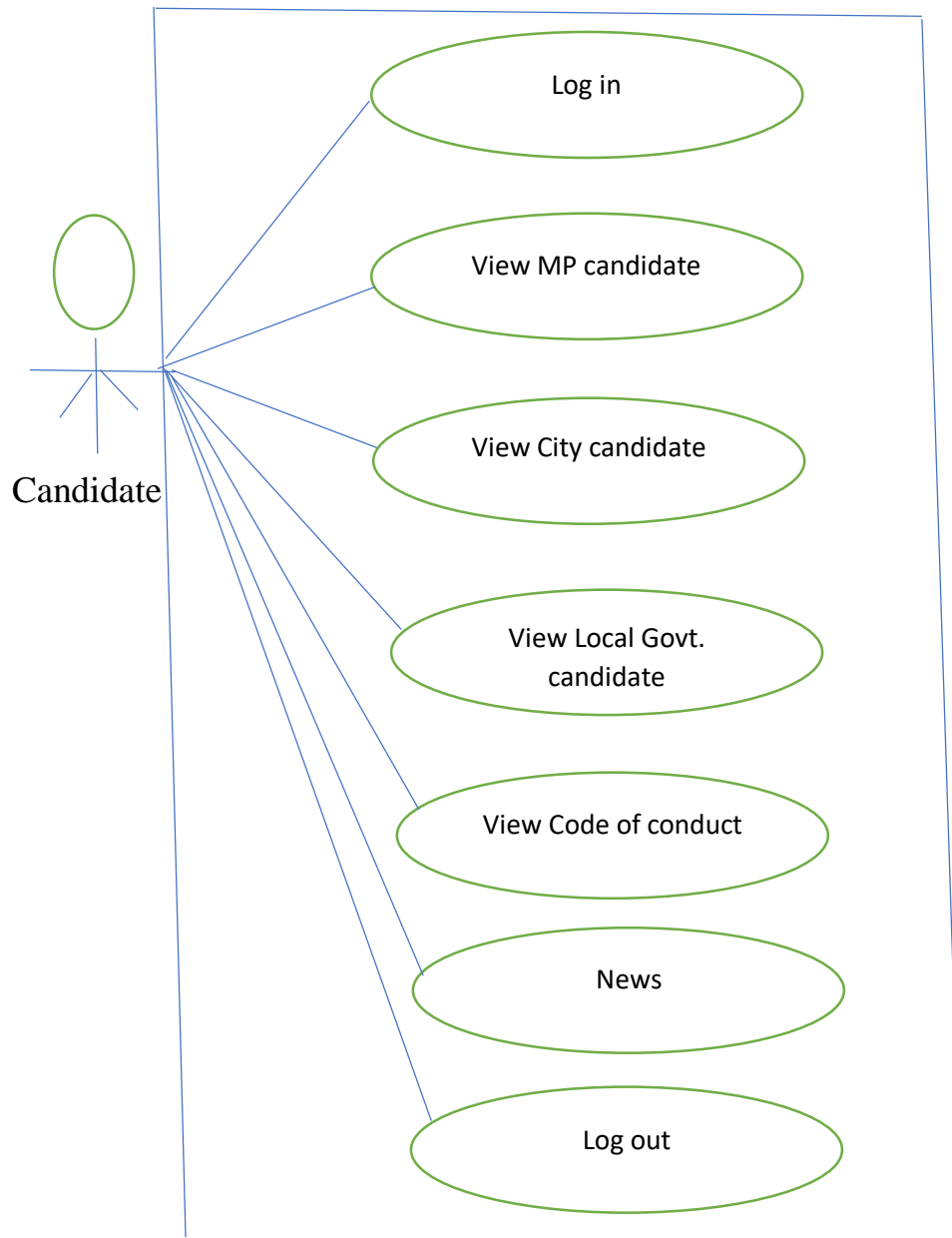
Figure 02: design map



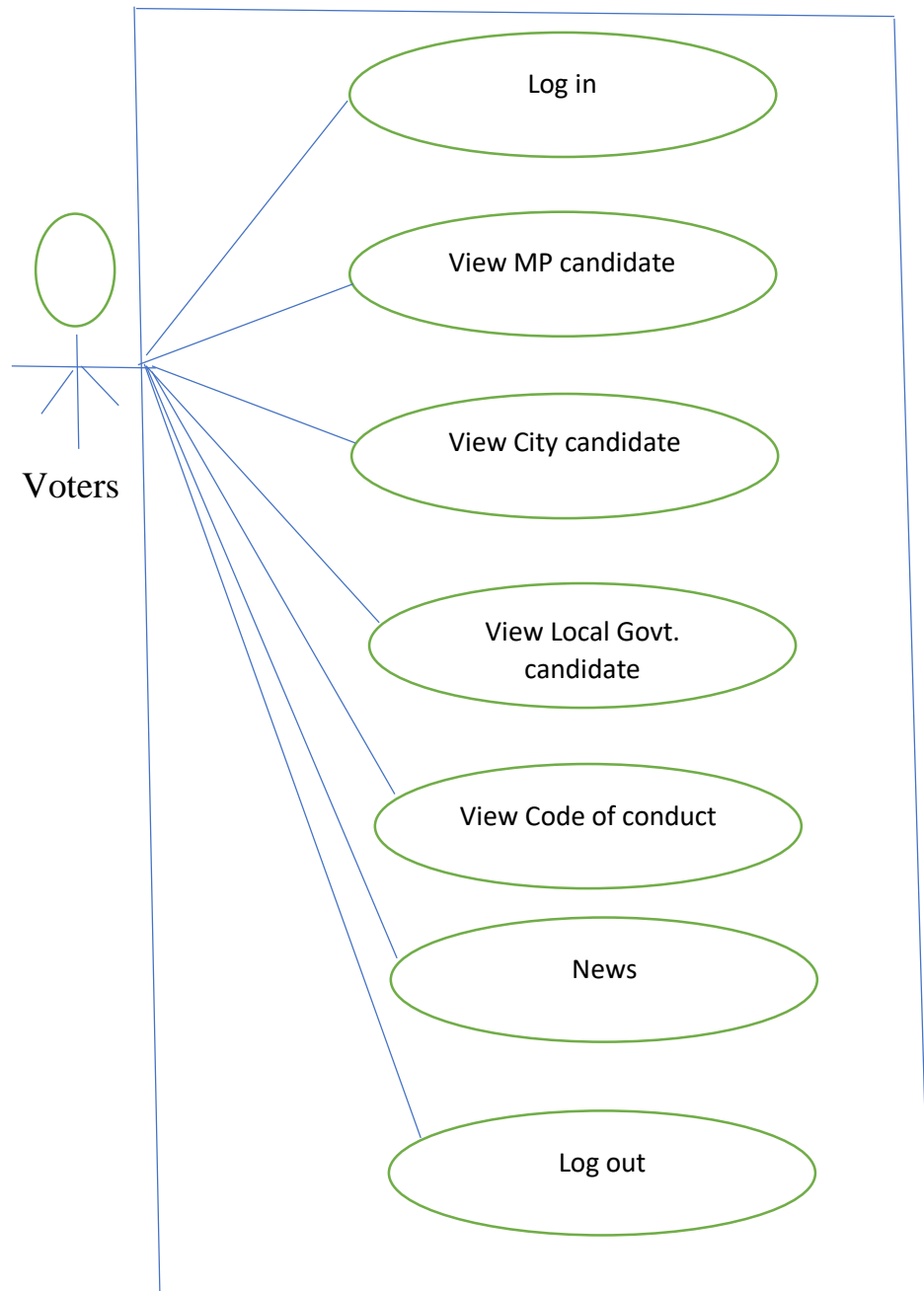
#### 4.4.2. Use case diagram for Admin:



#### 4.4.3. Use case diagram for Candidate:



#### 4.4.3. Use case diagram for Voters:



#### 4.4.3.1 Use case diagram description:

<b>Case No</b>	01	
<b>Use case</b>	Admin log in	
<b>Goal</b>	At first admin have to log in the system then does others functionality.	
<b>Success End Condition</b>	Admin has to give valid user name and password then to access in the system unconditionally. Then admin are successfully log in the system.	
<b>Failed End Condition</b>	Admin has not valid user name and password. System failure	
<b>Primary Actor:</b>	Admin	
<b>Secondary Actor:</b>	None	
<b>Trigger</b>	Admin request to log in to the system	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	1	The system is validates the admin that mean who is actually enters the system.
	1.1	Admin can type in a new name or password or choose to cancel the operation, at which point the use case ends
	1.2	After several attempt admin cannot log in to the system.
	1.3	If in the basic flow the system cannot find the name or the password is invalid, an error message is displayed.
<b>Alternative Flows</b>	<b>Step</b>	<b>Branching Action</b>
	1	N/A
<b>Quality Requirements</b>	<b>Step</b>	<b>Requirements</b>
	1	The system should ensure entrance within few second.
	1.1	The system will confirm wrong password and username within 5 second.

<b>Use Case-2 :</b>	<b>Select MP election</b>	
<b>Goal</b>	Here, any MP election candidates can create a profile including name, constituency, plan for people and budget for people within a second then voters can view their profile.	
<b>Preconditions</b>	MP candidates must be logged in	
<b>Success End Condition</b>	A search result will appear to candidates. Then they can make communication with them.	
<b>Failed End Condition</b>	If the given keyword will not match to with database stored information, then they will see a 'No result' message.	
<b>Primary Actors</b>	MP candidates	
<b>Secondary Actors</b>	Voters	
<b>Trigger</b>	The user clicks on the 'Find' button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	In this option user put their keyword in text box. Then click on find button. If given keywords is match with database then they can see search results.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	'No result' message will appear to users. Then they need to search again if they want.
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Search result must be show within few second.

<b>Use Case-3</b>	<b>Select City corporation election</b>	
<b>Goal</b>	This module for city corporation election candidates can create a profile including name, constituency, plan for people and budget for people within a second then voters can view their profile.	
<b>Preconditions</b>	<b>Select City corporation election</b> must be logged in	
<b>Success End Condition</b>	A search result will appear to candidates. Then they can make communication with them.	
<b>Failed End Condition</b>	If the given keyword will not match to with database stored information, then they will see a ‘No result’ message.	
<b>Primary Actors</b>	MP candidates	
<b>Secondary Actors</b>	Voters	
<b>Trigger</b>	The user clicks on the ‘Find’ button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	In this option user put their keyword in text box. Then click on find button. If given keywords is match with database then they can see search results.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	‘No result’ message will appear to users. Then they need to search again if they want.
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Search result must be show within nano second.

<b>Use Case-4</b>	<b>Select Local Govt. election</b>	
<b>Goal</b>	Here, any MP election candidates can create a profile including name, constituency, plan for people and budget for people within a second then voters can view their profile.	
<b>Preconditions</b>	Select Local govt. candidates must be logged in	
<b>Success End Condition</b>	A search result will appear to candidates. Then they can make communication with them.	
<b>Failed End Condition</b>	If the given keyword will not match to with database stored information, then they will see a 'No result' message.	
<b>Primary Actors</b>	MP candidates	
<b>Secondary Actors</b>	Voters	
<b>Trigger</b>	The user clicks on the 'Find' button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	In this option user put their keyword in text box. Then click on find button. If given keywords is match with database then they can see search results.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	'No result' message will appear to users. Then they need to search again if they want.
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Search result must be show within few second.

<b>Use Case-5</b>	<b>News</b>	
<b>Goal</b>	In this section admin can post far relevant news that is most essential for candidates and voters	
<b>Preconditions</b>	Candidates and voters must be logged in	
<b>Success End Condition</b>	A search result will appear to candidates. Then they can make communication with them.	
<b>Failed End Condition</b>	If the given keyword will not match to with database stored information, then they will see a 'No result' message.	
<b>Primary Actors</b>	Admin	
<b>Secondary Actors</b>	MP candidates , Voters	
<b>Trigger</b>	The user clicks on the 'Find' button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	In this option user put their keyword in text box. Then click on find button. If given keywords is match with database then they can see search results.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	'No result' message will appear to users. Then they need to search again if they want.
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Search result must be show within few second.

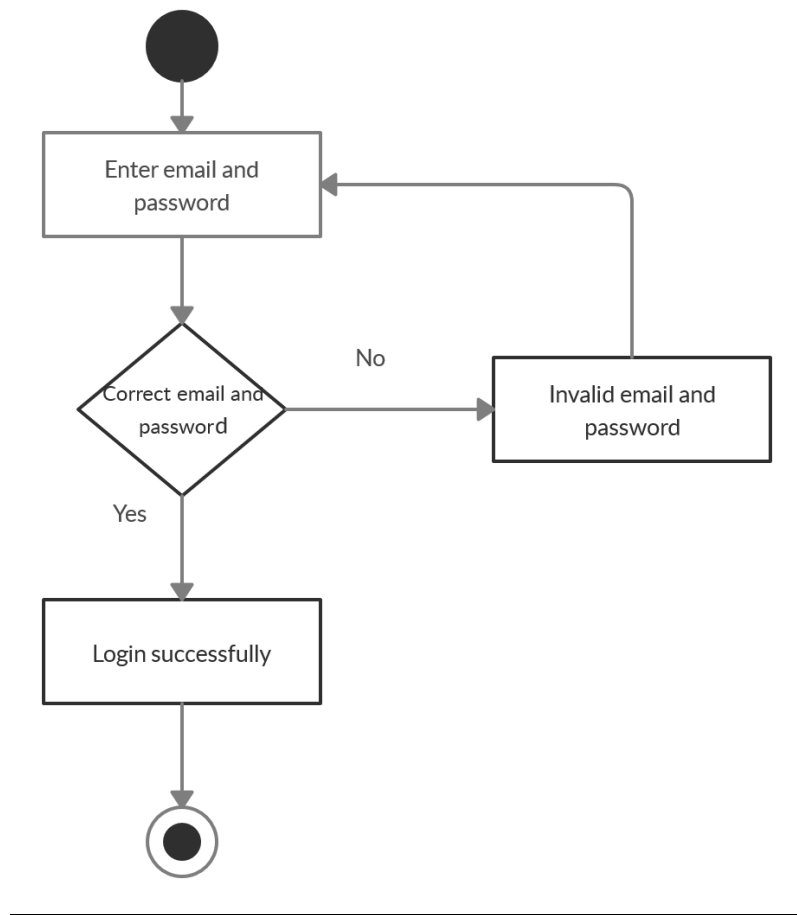


<b>Use Case-6</b>	<b>Emergency call</b>	
<b>Goal</b>	In this module most important and law enforcing agencies number will be available for all of us.	
<b>Preconditions</b>	Candidates and voters must be logged in	
<b>Success End Condition</b>	A search result will appear to candidates. Then they can make communication with them.	
<b>Failed End Condition</b>	If the given keyword will not match to with database stored information, then they will see a 'No result' message.	
<b>Primary Actors</b>	Admin	
<b>Secondary Actors</b>	MP candidates , Voters	
<b>Trigger</b>	The user clicks on the 'Find' button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	In this option user put their keyword in text box. Then click on find button. If given keywords is match with database then they can see search results.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	'No result' message will appear to users. Then they need to search again if they want.
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Search result must be show within nano second.

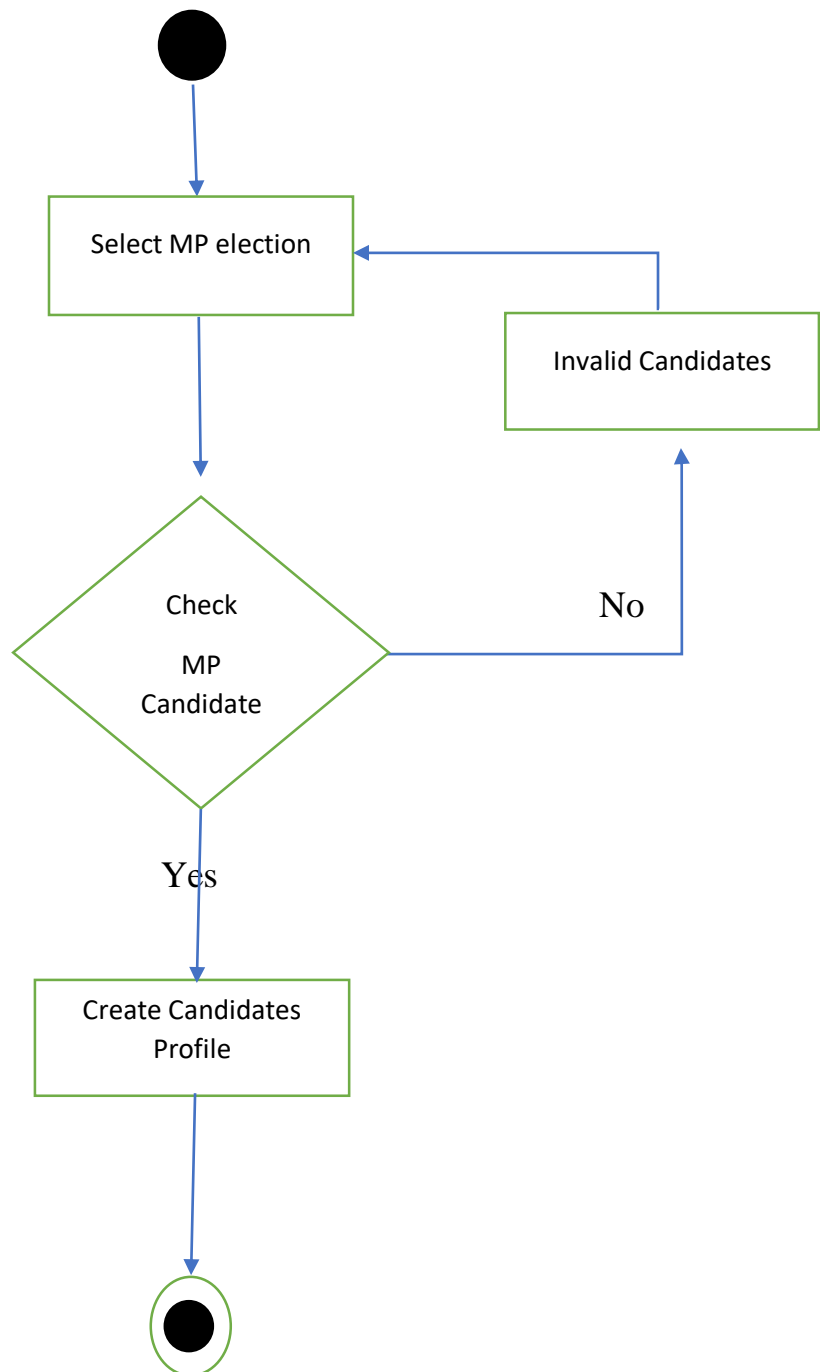
<b>Use Case-7:</b>	<b>Log out</b>	
<b>Goal</b>	Click on the logout button if the user wants to sign out from the application.	
<b>Preconditions</b>	Users must be logged in	
<b>Success End Condition</b>	A ‘Log out successfully’ message will appear to the user after click on the log out button.	
<b>Failed End Condition</b>	No.	
<b>Primary Actors</b>	Students, Tutors	
<b>Secondary Actors</b>	No	
<b>Trigger</b>	The user clicks on the ‘Log out’ button	
<b>Description</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	User use this button to end this session.
<b>Alternative Flows</b>	<b>Step</b>	<b>Action</b>
	<b>1</b>	No
<b>Quality Requirement</b>	<b>Requirement</b>	
	<b>1</b>	Must be log out in Nano seconds.

#### 4.4.3.2 System Activity Diagram

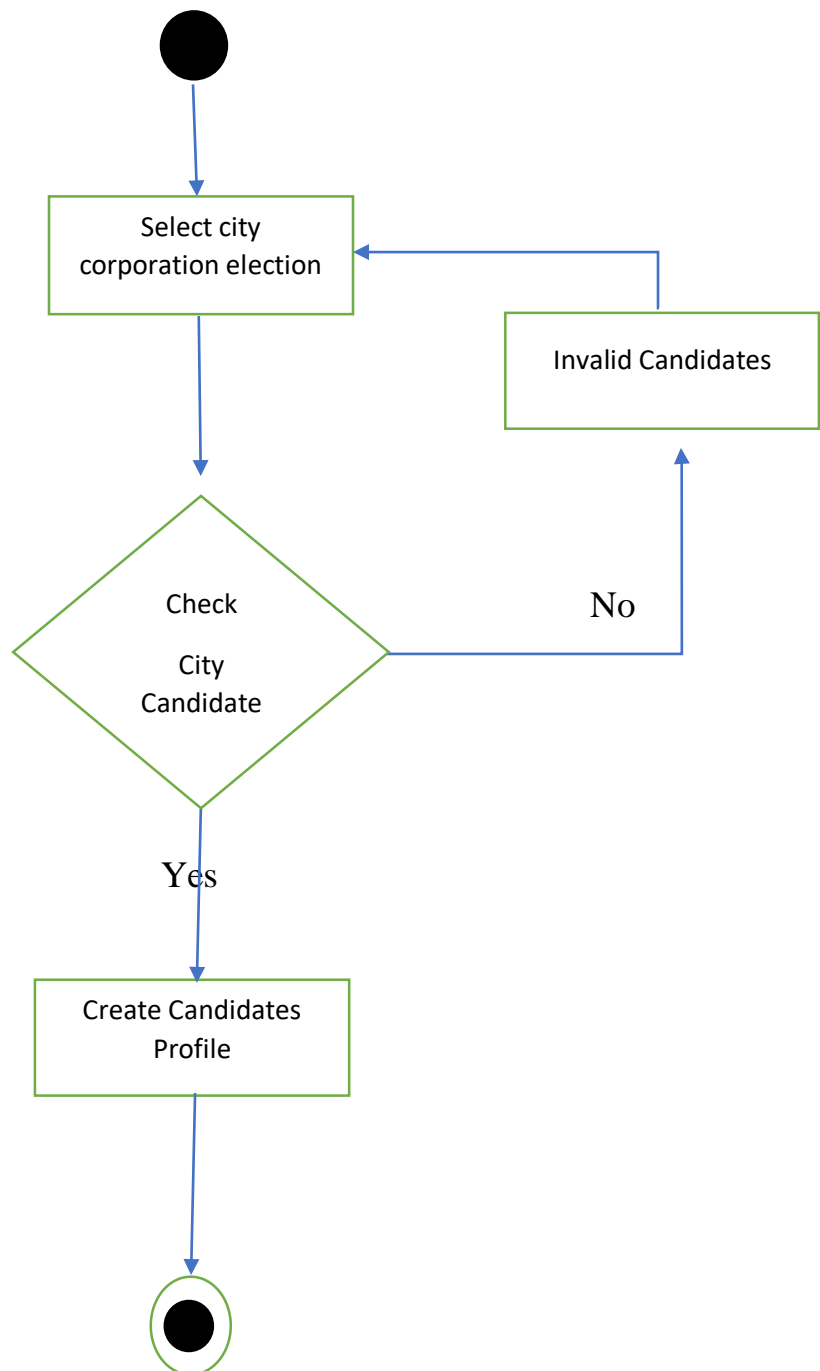
##### Login:



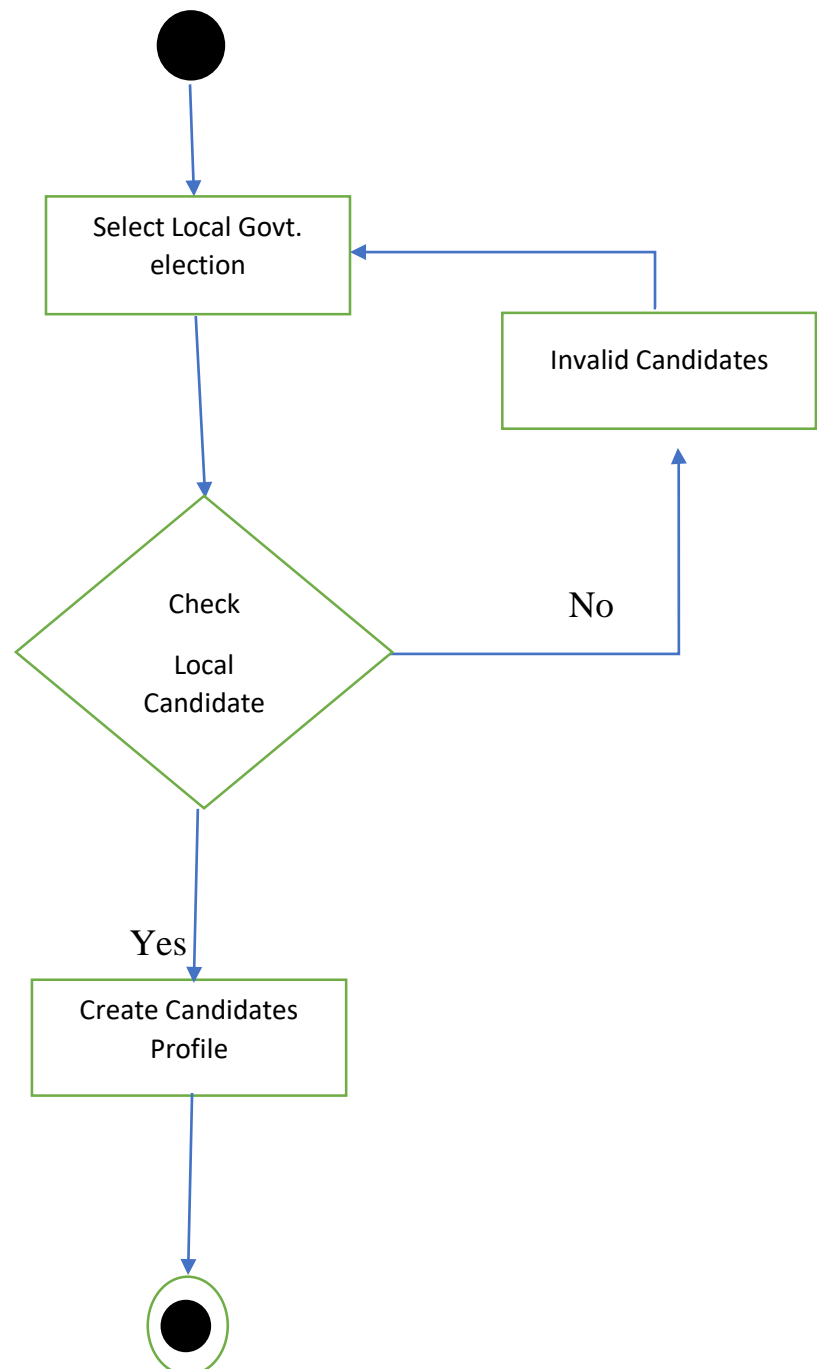
**Select MP election:**



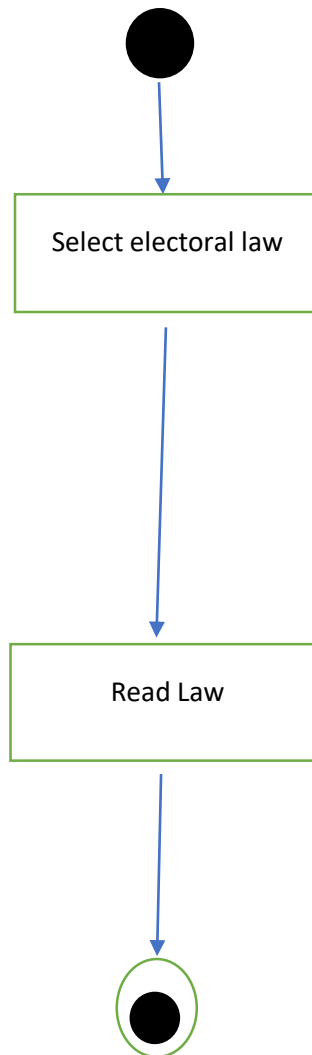
**Select City corporation election:**



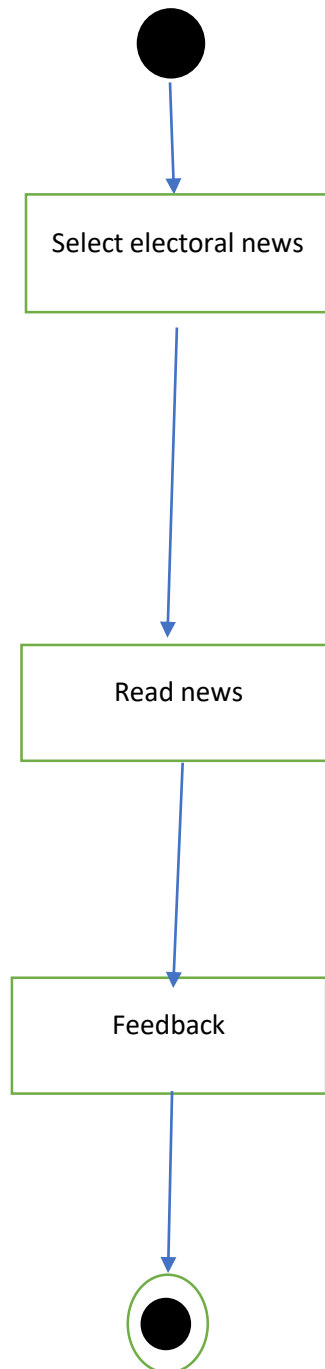
**Select Local Govt. election:**



**Code of Conduct:**

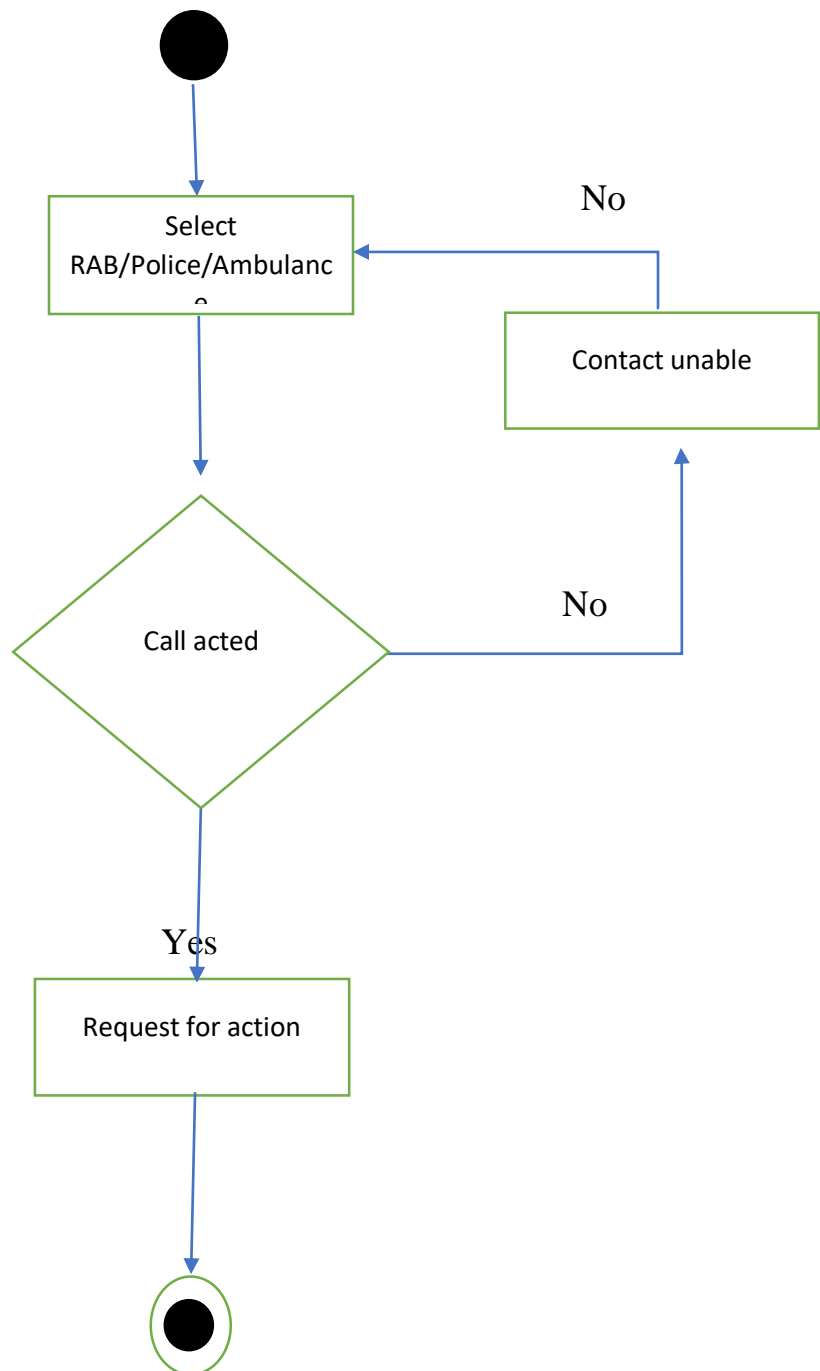


**News:**

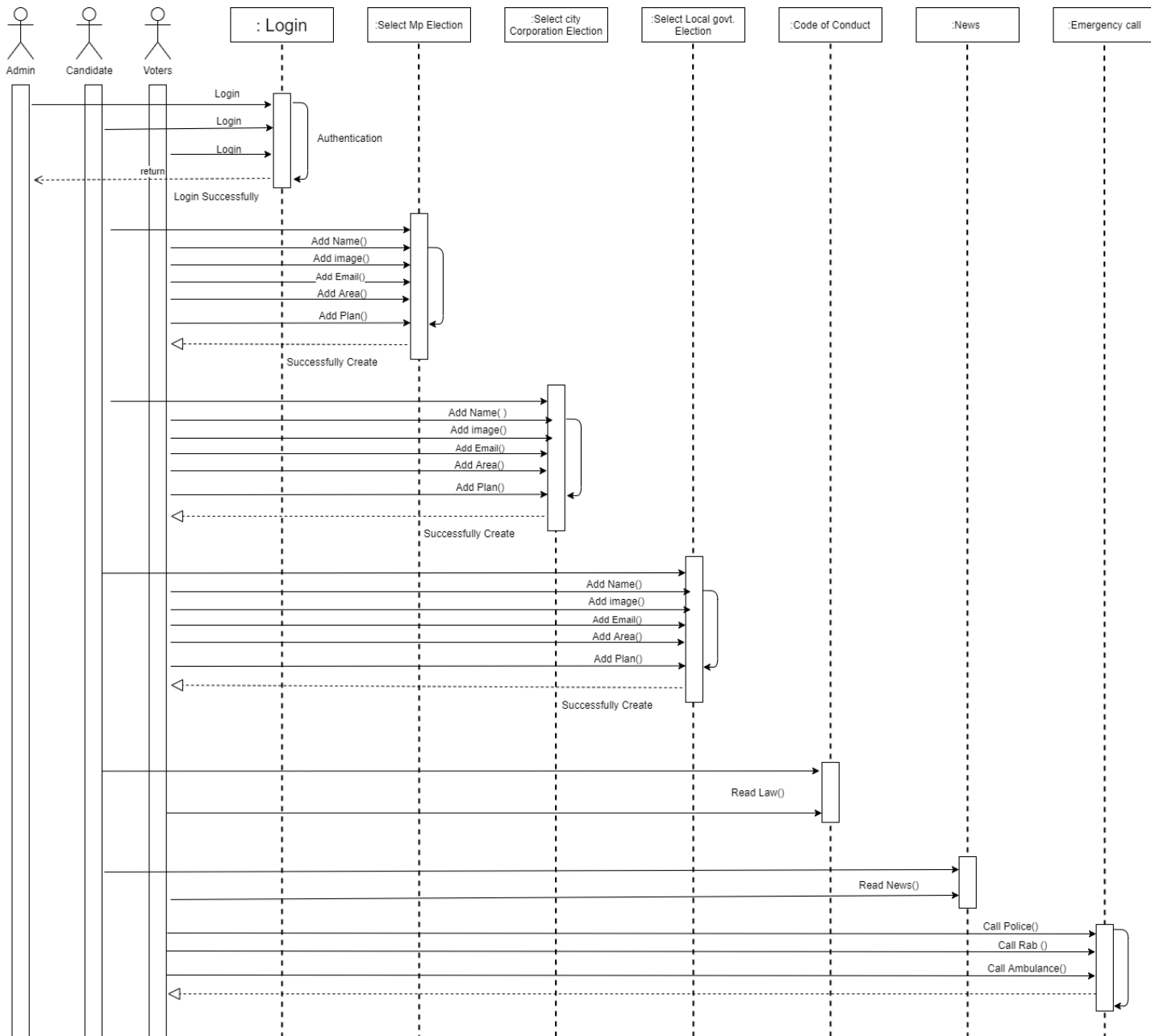




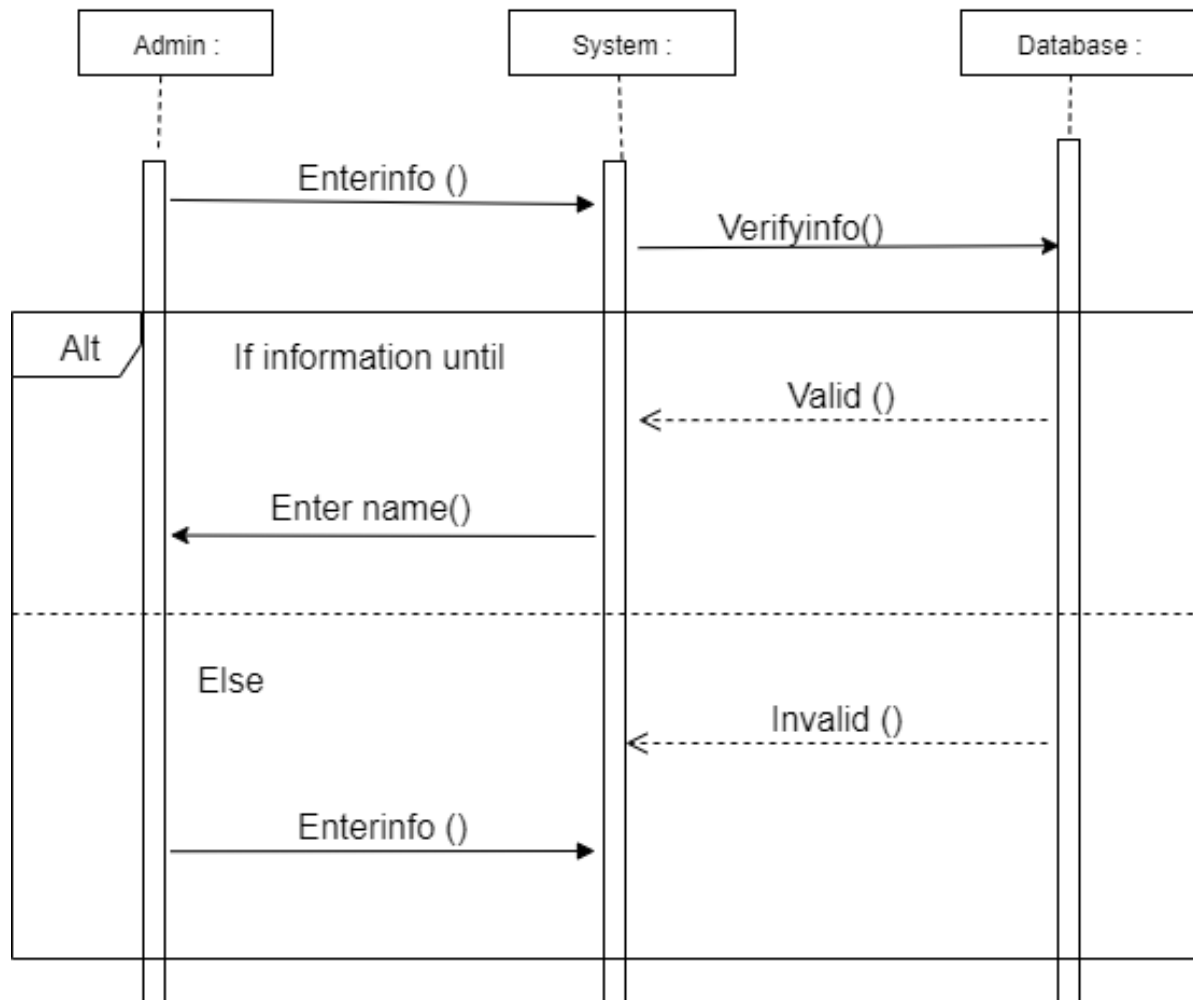
**Emergency call:**



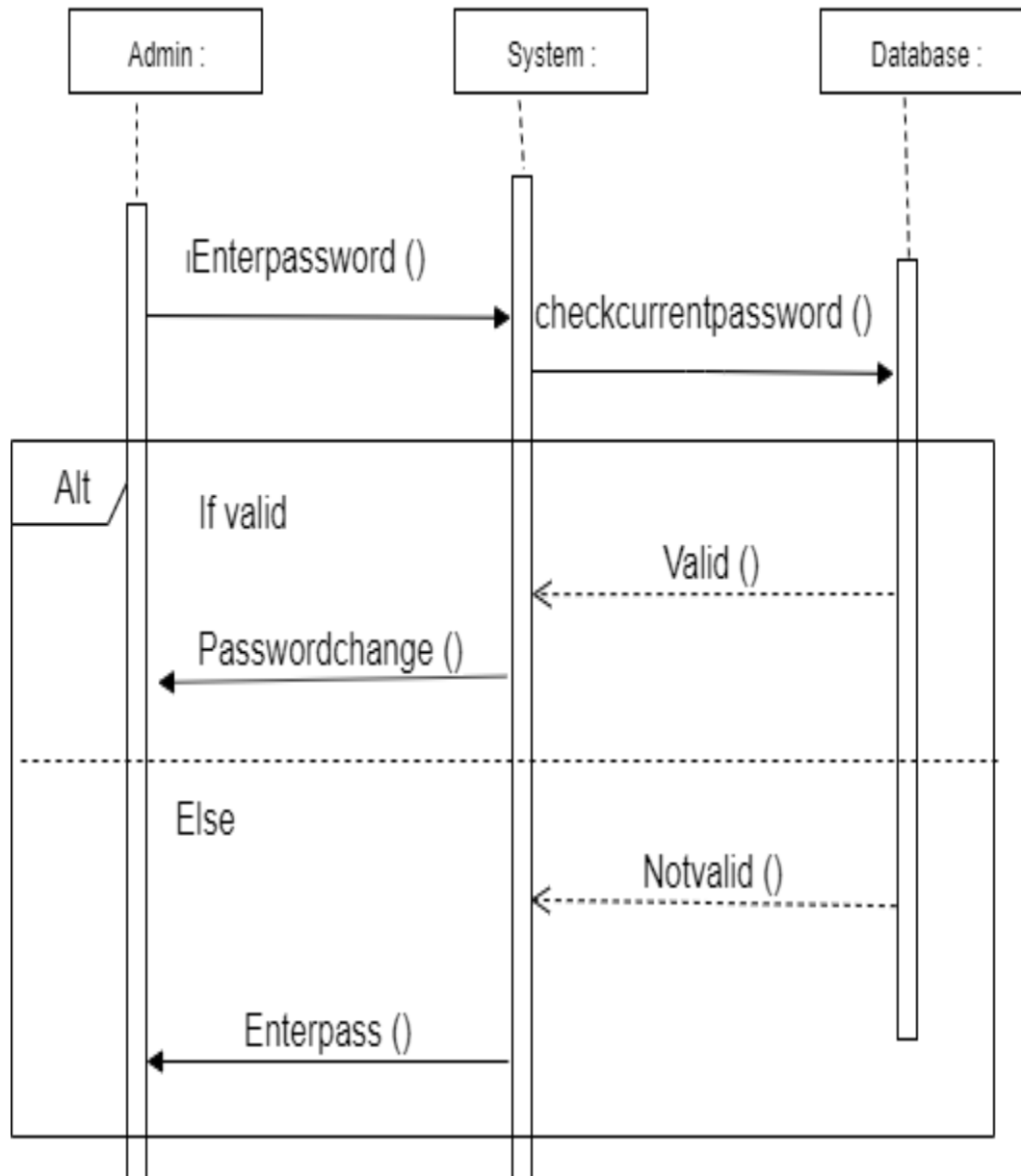
### 4.4.3.3 Sequence diagram:



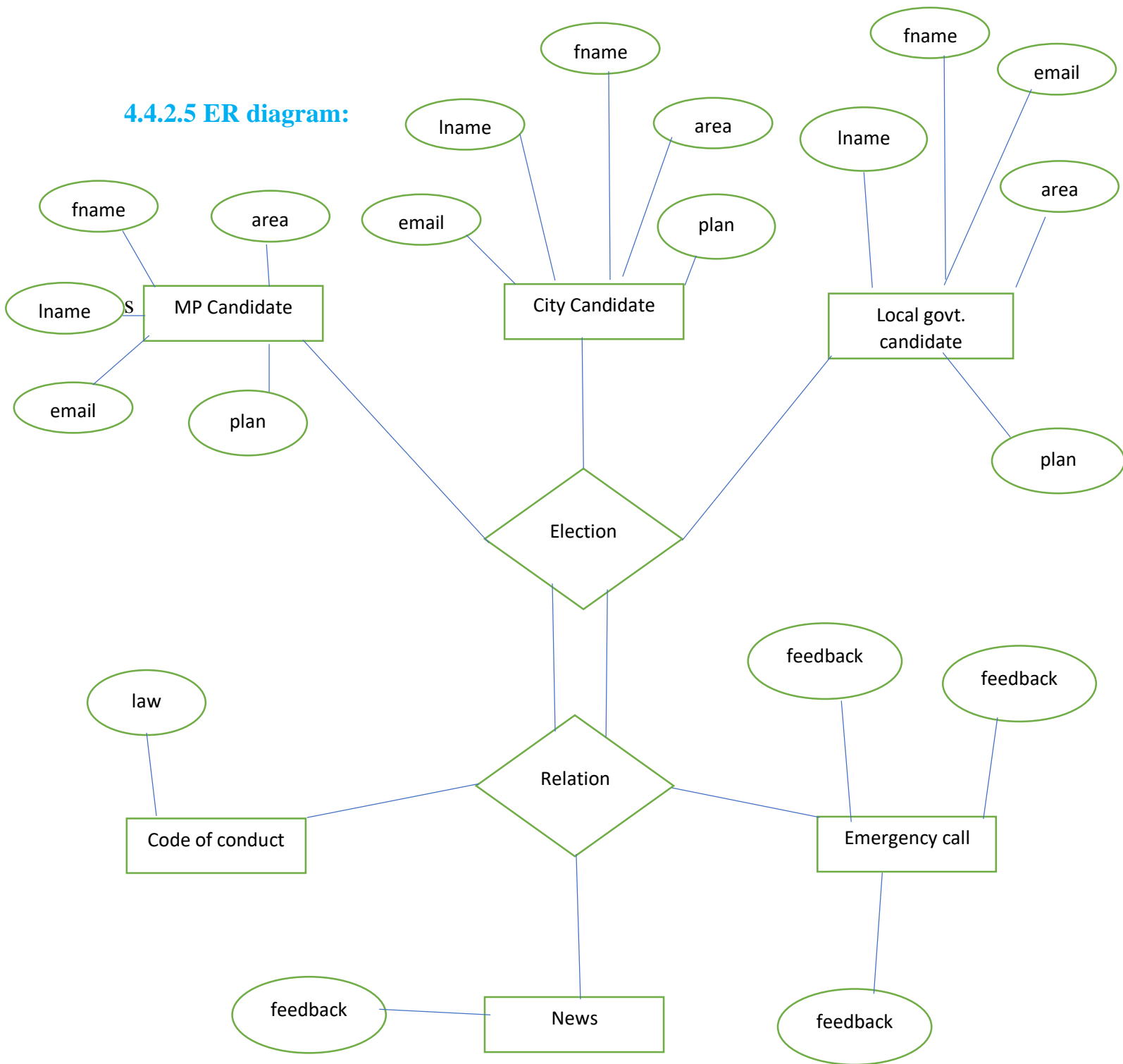
## Login



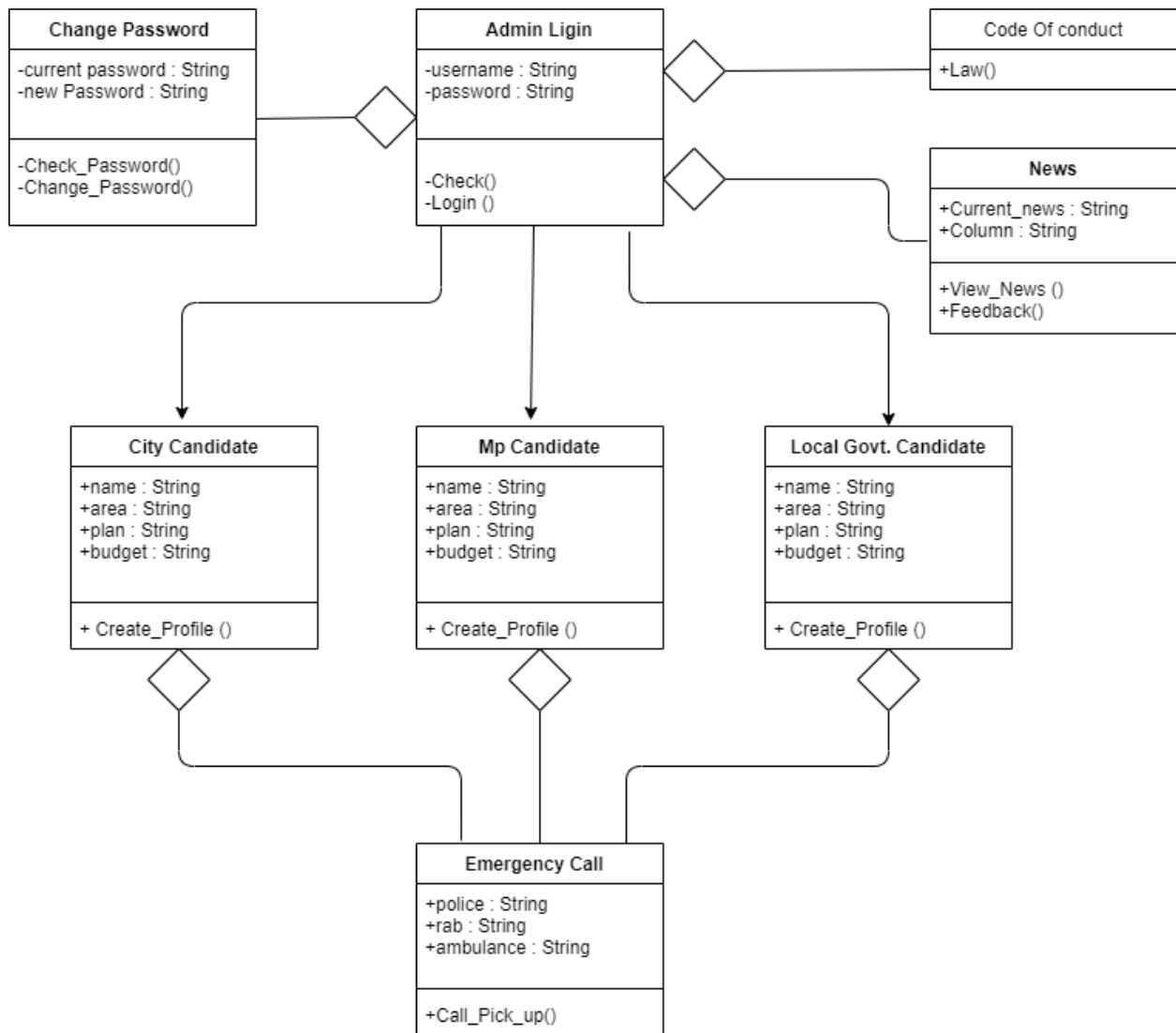
## Change password



#### 4.4.2.5 ER diagram:



#### 4.4.2.4 Class diagram:



#### 4.4.2.6 DFD diagram:

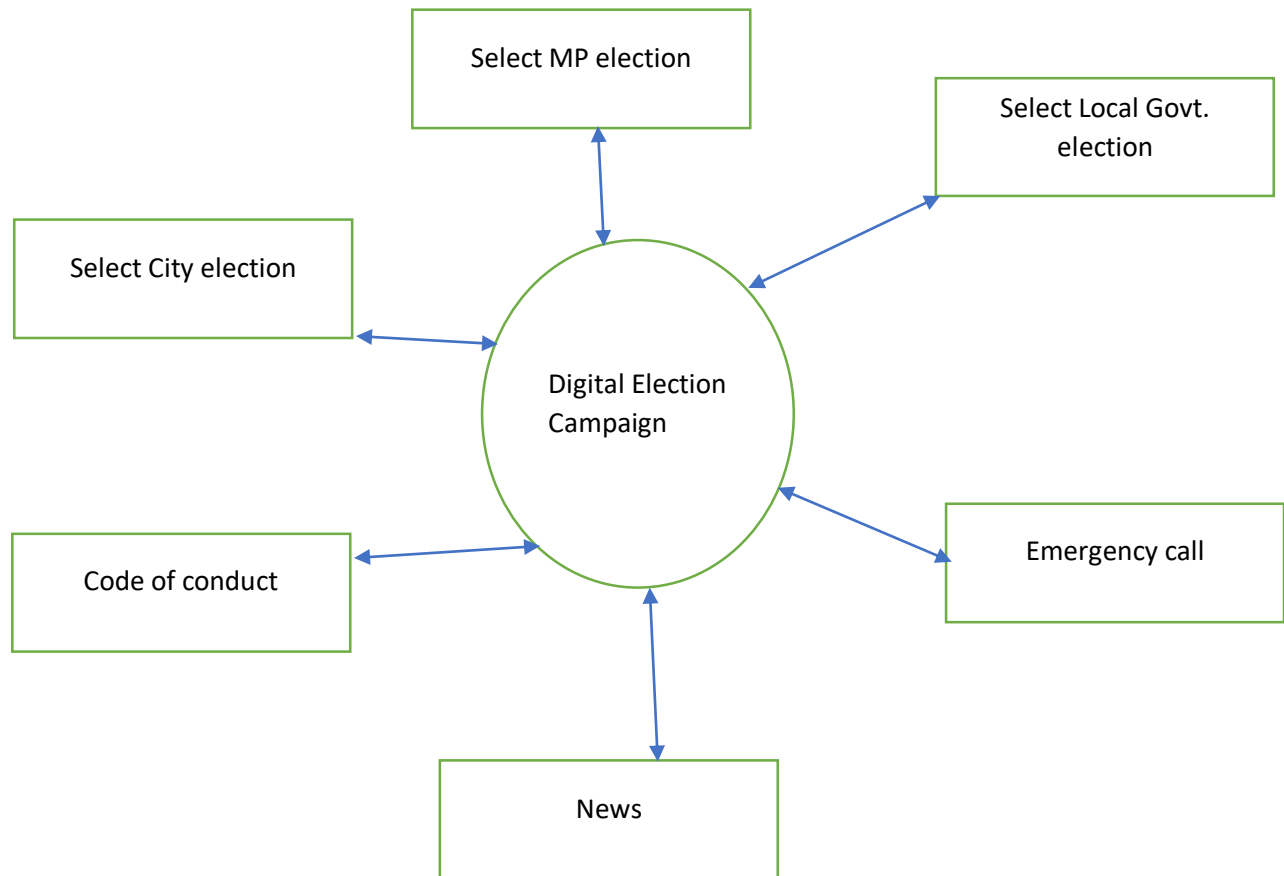


Figure: Zero Level DFD

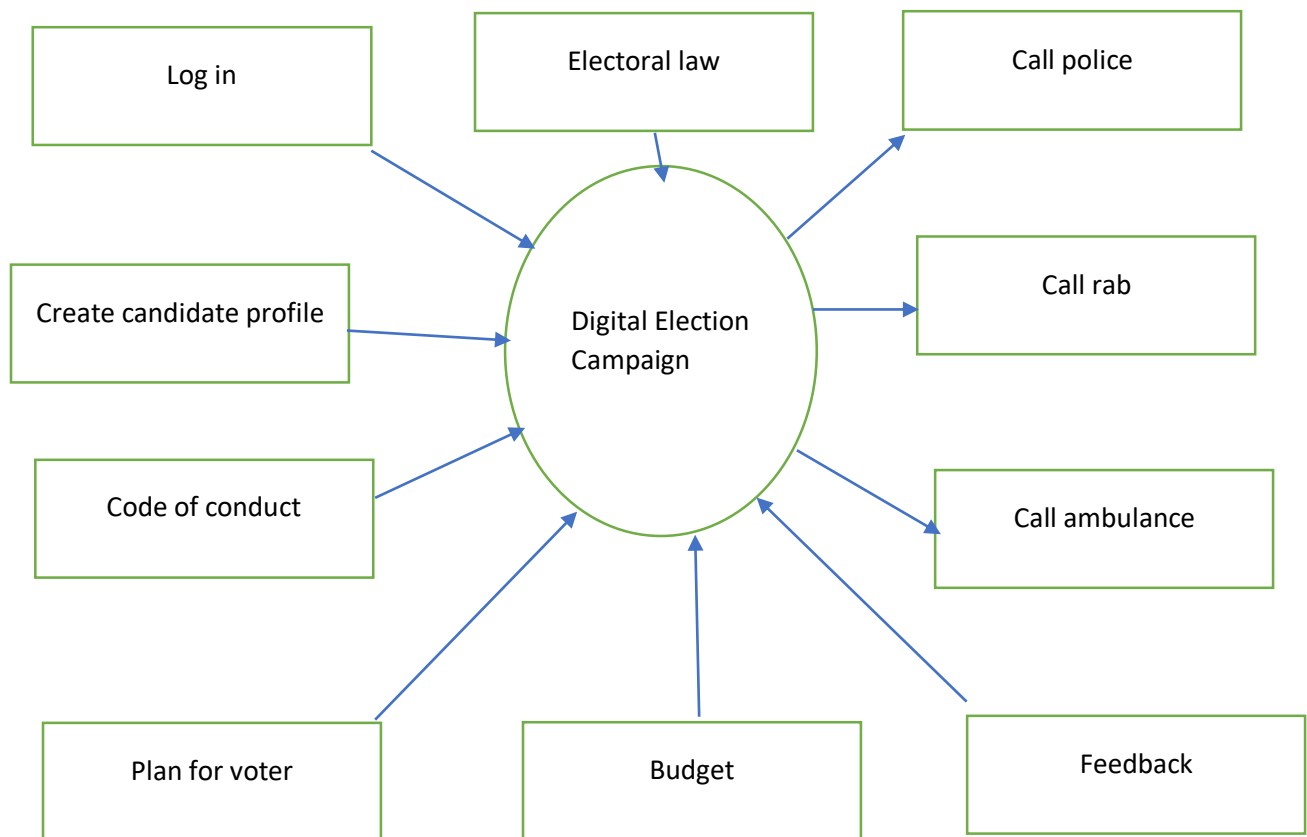


Figure: First Level DFD



## Chapter-5

### User Interface



TRT WORLD

[HOME](#)

[VIEW MP  
ELECTION](#)

[VIEW CITY  
ELECTION](#)

[LOCAL GOVT  
ELECTION](#)

[CODE OF  
CONDUCT](#)

[BLOG](#)

[EMERGENCY  
CALL](#)

## BANGLADESH ELECTIONS

# Nation gears up for polls marred by violence

Activate Windows  
Go to Settings to activate Win

## Bangladesh Election Commission

The Election Commission of Bangladesh, abbreviated and publicly referred to as EC, is an independent constitutional body that operates the legal functions of election laws in Bangladesh. It is founded in July 7, 1972 and headquarter located at Dhaka

[view more](#)



Activate Windows  
Go to Settings to activate Windows.

## our voters review



## Our Blog

Elections in Bangladesh gives information on election and election results in Bangladesh. Bangladesh elects on national level a legislature with one house or chamber. The unicameral Jatiyo Sangshad, meaning national parliament, has 350 members of which 300 members are directly elected through a national election for a five-year term in single-seat constituencies while 50 memberships are reserved for the women who are selected by the ruling party



3rd November 2018 23 comment

### Bangladesh goes to election on Dec 29

Chief Election Commissioner KM Nurul Huda announced the date in a recorded speech broadcast on Bangladesh TV and Betar at 7pm on Thursday, setting Nov 19 as the deadline for nomination submission. rebels in the Dhaka city elections



3rd November 2018 23 comment

### The election is very free, fair and credible

Awami League General Secretary Obaidul Quader has hinted that the ruling party will keep its rebel candidates for councillors' posts in the upcoming Dhaka North and South City Corporation

3rd November 2018 23 comment

### BNP: Govt abetting In over NRC


Awami League General Secretary Obaidul Quader has hinted that the ruling party will keep its rebel candidates for councillors' posts in the Dhaka North and South City Corporation electoral race. rebels in the Dhaka city e


[Continue reading...](#)


Activate

## get in touch

[send](#)

  
Dhanmondi-32  
Dhaka, Bangladesh

  
+8801775035737  
+8801852771667

  
majharul35-184@diu.edu.bd  
maharshi35-1959@diu.edu.bd

  
[www.ecg.gov.bd](http://www.ecg.gov.bd)  
[www.website.com](http://www.website.com)

## Create MP candidate Profile

No file chosen

First Name


Last Name


Email


Area


Plan

Create

  
Dhanmondi-32  
Dhaka,Bangladesh

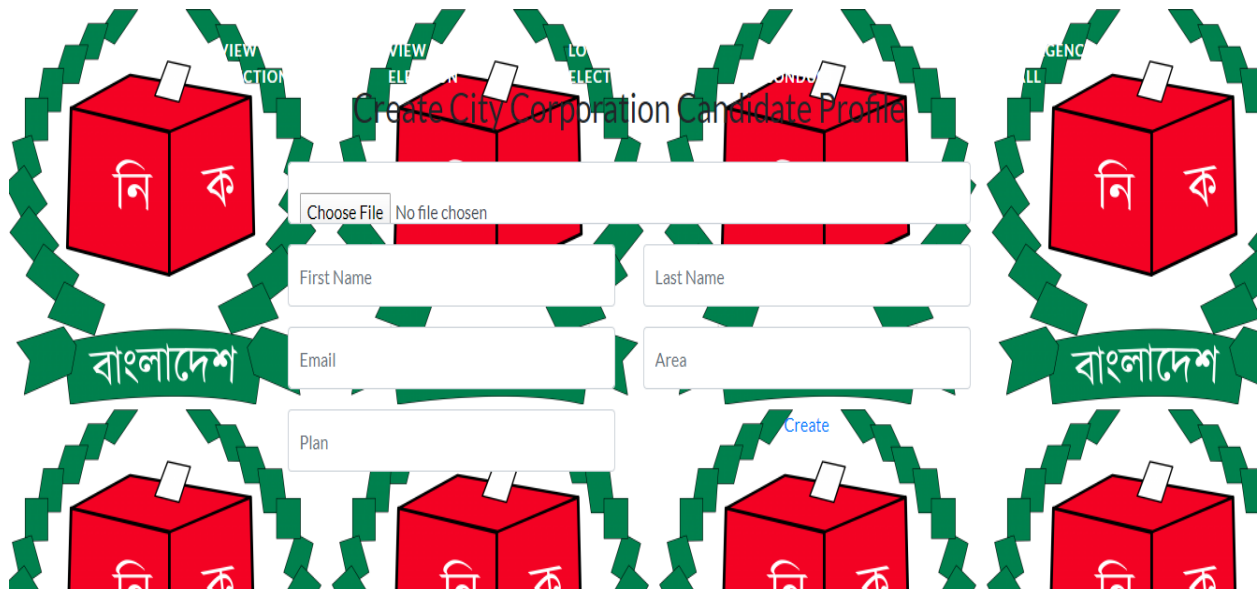
  
+8801775035737  
+8801852771667


  
majharul35-184@diu.edu.bd  
maharshi35-1959@diu.edu.bd


  
www.ecg.gov.bd  
www.website.com


Activate Wir  
Go to Settings tc

Copyright©2018.All rights reserve by Majharul Islam Towsif & Maharshi Pranto



  
Dhanmondi-32  
Dhaka,Bangladesh

  
+8801775035737  
+8801852771667

  
majharul35-184@diu.edu.bd  
maharshi35-1959@diu.edu.bd

  
www.ecg.gov.bd  
www.website.com

## Create Local Govt Candidate Profile

No file chosen

[Create](#)

Dhanmondi-32  
 Dhaka, Bangladesh

+8801775035737  
 +8801852771667

majharul35-184@diu.edu.bd  
 maharshi35-1959@diu.edu.bd

[www.ecg.gov.bd](#)  
[www.website.com](#)

- Information on Bangladesh electoral system
- Election management body
- Poll and count
- Code of conduct, prevention of pre-poll irregularities and election petitions
- Elections organized by the Election Commission since Independence of Bangladesh
- Party agents and election observers
- Training and technology

## Electoral Law





- 📞 999 (POLICE)
- 📞 555 (RAB)
- 📞 333 (AMBULANCE)

Activate Windows  
Go to Settings to activate Windows.