**4.3.5 Access control and security**

The information which registered in the system we bulled have to be secure. In our system,  
different actors have access to different functionality and data. Therefore these privileges put  
off unauthorized users from accessing data’s which they don’t have privilege to access

Table access matrix table

|  |  |  |  |
| --- | --- | --- | --- |
| Objects Actors | Login | Create account | View candidates info |
| Admin | Get login() Verify() Validate() Set log() |  |  |
| Voter | Get login() Verify() Validate() Set log() | Get ID() Verify() Validate() create() | Get detail info() |
| Candidates | Get login() Verify() Validate() Set log() | Get ID() Verify() Validate() create() |  |

Access matrix for class’s login, create account, view candidates information

|  |  |  |  |
| --- | --- | --- | --- |
| Objects Actors | reset password | Post information | Set election |
| Admin | Send password reset link() Validate email() Verify security question() |  | Activate the system and deactivate when time is over() |
| Voter | Send password reset link() Validate email() Verify security question() |  |  |
| Candidates | Send password reset link() Validate email() Verify security question() | Add information()  Get detail info() |  |

Access matrix for class’s, reset password, post information, set election

|  |  |  |  |
| --- | --- | --- | --- |
| Objects Actors | Port data | Approve candidates | Forget password |
| Admin | Add data from registration system to the System | Approve The request of to be candidates() | Add email or phone no()  Send reset link()  Set new password()  Sent confirmation code() |
| Voter |  |  | Add email or phone no()  Send reset link()  Set new password()  Sent confirmation code() |
| Candidates |  |  | Add email or phone no()  Send reset link()  Set new password()  Sent confirmation code() |

Access matrix for class’s, port data, Approve candidates, forget password

**4.3.6 Boundary Condition**

* **Start up the system:** Browsing for the URL.
* **Termination of the system:** closing the browser leads to session destroy.
* **Error condition:** connection down between data transfer.

Most of the system design effort is concerned with steady-state behavior. However, the system design must be address the initiation and termination of the system. This addressed by administration use case.

1. **Dynamic model of the system startup**

Online election system is a system that run properly when the user needs to use the system. Therefore, user of the system must start the system from their android smartphone when they to use the system. After the system is started up, it is necessary to connect the internet.

For the Administrator to be able to access the system it is also necessary to connect the internet through web browser, which must be installed on the machine to start the connect to the server.

1. **Termination**

Describes what resources are cleaned up and which systems are notified upon termination If web server or web server is not started to run then web interface or web interface will not be visible by the users. After finishing the system interaction user can be logging out and closes the web.

**c)Error Condition**

Many possible causes: internet connection fails, Bugs, errors, external problems (power supply) and also web application faller may happen.

Table boundary condition failures

|  |  |  |
| --- | --- | --- |
| Error | Cause | solution |
| Server not found | No internet connection | Network connection |
| Communication link fails | Wrong IP address.  Port number is missing or wrong.  Net blocking connection.  DB server is down etc. | Verify and test them with ping.  Verify it based on my.cnf of SQL DB. |
| Web server fail | Computational/logic Errors Power outages Overheating  High humidity Natural disasters, e.g., hurricanes, Floods | Using Server failover. To send a backup automatically on Backup server.  That means An automatic server failover solution can prevent your website from going down in the event of a server failure. |
| Web Application fail | web application attacks (treat) cross-site scripting(XSS) and SQL injection Device driver failures I/O errors, e.g., hard disk failures(see database media failures) Memory parity errors Network hardware failures | Firewalls and similar intrusion detection mechanisms provide little defense against full-scale web attacks. Using Server failover. |