**Test plan for**

**Blockchain Based**

**E-Voting System**

Made by:

Rhythm Garg (2100290120141 – CS-7C)

Test Manager:

Prof. Rishabh Chakraborty

*ChangeLog*

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Change Date** | **By** | **Description** |
| 001 | 09.12.2024 | Rhythm Garg | Intitial Draft |
|  |  |  |  |
|  |  |  |  |

1 Introduction 2

1.1 Scope 2

1.1.1 In Scope 2

1.1.2 Out of Scope 2

1.2 Quality Objective 2

1.3 Roles and Responsibilities 2

2 Test Methodology 3

2.1 Overview 3

2.2 Test Levels 3

2.3 Bug Triage 3

2.4 Suspension Criteria and Resumption Requirements 3

2.5 Test Completeness 4

3 Test Deliverables 4

4 Resource & Environment Needs 4

4.1 Testing Tools 4

4.2 Test Environment 4

5 Terms/Acronyms 5

# Introduction

SecureVote is a blockchain-based e-voting system built on the Ethereum blockchain, ensuring secure, transparent, and tamper-proof elections. The system incorporates Aadhar-based biometric authentication for voter verification, ensuring each vote is uniquely and securely cast. The test plan includes strategies for verifying smart contract functionality, system integration, and security measures.

## Scope

### In Scope

Features to be tested:  
- Smart contract functionality in Solidity.  
- Aadhar-based biometric authentication.  
- Vote casting, validation, and result computation.  
- System integration and blockchain node communication.  
- Usability and accessibility of the voting interface.

### Out of Scope

Features not to be tested:  
-

## Quality Objective

Some objectives of your testing project could be

* Ensure all smart contracts meet functional and non-functional requirements.
* Validate the security of the blockchain network.
* Confirm voter data integrity and authenticity.

## Roles and Responsibilities

Roles and Responsibilities:

* QA Analyst: Rhythm Garg
* Test Manager: Prof. Rishabh Chakraborty
* Configuration Manager: Rhythm Garg
* Developer: Rhythm Garg
* Installation Team: Prof. Arti Sharma, Rhythm Garg.

# Test Methodology

## Overview

Mention the reason of adopting a particular test methodology for the project. The test methodology selected for the project could be

* WaterFall
* Iterative
* Agile
* Extreme Programming

The methodology selected depends on multiple factors. You can read about Test Methodology [here](http://www.guru99.com/testing-methodology.html)

## Test Levels

**Test Levels define the Types of Testing to be executed on the Application Under Test (AUT**). The Testing Levels primarily depends on the scope of the project, time and budget constraints.

## Test Completeness

Here you define the criterias that will deem your testing complete.

For instance, a few criteria to check Test Completeness would be

* 100% test coverage
* All Manual & Automated Test cases executed
* All open bugs are fixed or will be fixed in next release

# Test Deliverables

Here mention all the Test Artifacts that will be delivered during different phases of the testing lifecycle.

|  |
| --- |
| * Test Cases * Requirement Traceability Matrix * Bug Reports |

# Resource & Environment Needs

## Testing Tools

Make a list of Tools like

* Requirements Tracking Tool
* Bug Tracking Tool
* Automation Tools

Required to test the project

## Test Environment

It mentions the minimum **hardware** requirements that will be used to test the Application.

Following **software’s** are required in addition to client-specific software.

1. Windows 8 and above
2. Office 2013 and above
3. MS Exchange, etc.

# Terms/Acronyms

Make a mention of any terms or acronyms used in the project

| TERM/ACRONYM | DEFINITION |
| --- | --- |
| API | Application Program Interface |
| AUT | Application Under Test |