
Business Rules *for* *Fingerprint Voting System*

SE322 Software Requirements Analysis

FALL2022

Prepared by:

Aganović Ajla 210302135

Mujezinović Amina 210302140

Subašić Nejira 210302167

Jeličić Ivan 210302160

Žiga Edin 190302192

Version 1.1

December 17th, 2022

Revision History

Names	Date	Reason for Changes	Version
<i>Subašić N. et al.</i>	16/12/22	Initial draft	1.0 – Draft 1
<i>Žiga E. et al.</i>	17/12/22	Clarification, spelling mistakes	1.1 – Final

Table of Contents

1. Business rules for Fingerprint Voting System	2
<i>Table 1 Business Rules</i>	2
2. Bibliography	3

1. Business rules for Fingerprint Voting System

The following section overviews the business rules for the *Fingerprint Voting System*. The rules presented in *Table 1 Business Rules* were created using the conventional cataloging method, where the recorded information consists of the rule definition, the type of rule, if the rule is static or dynamic and the source of the rule. Due to the limited scope of the *Fingerprint Voting System* (it being a system that addresses one problem), a relatively smaller number of rules was developed that would cover all grounds. It was decided that introducing additional rules would not provide value to the current state of the table.

<i>ID</i>	<i>Rule Definition</i>	<i>Type of Rule</i>	<i>Static or Dynamic</i>	<i>Source</i>
Location.Staff	Every voting location has a Location Administrator. Every Location Administrator has a unique identification card. Every identification card has a unique NFC chip in it.	Fact	Dynamic	Central Election Committee Policy
Location.Device	Every voting location has a fingerprint reading capable Android based tablet that only operates the <i>Fingerprint Voting System</i> .	Fact	Static	Central Election Committee Policy
Location.Internet	Every voting location has a private network for the device running the <i>Fingerprint Voting System</i> .	Fact	Static	Device Requirement
System.Time	The Fingerprint Voting system can only be used between the period of 07:00 and 19:00.	Constraint	Static	Central Election Committee Policy
Voting.Individual	During Individual Voting Mode, only one person can use the device.	Constraint	Static	B&H Government Policy
Voting.Authentication.Fingerprint	Unless physically unable, every voter must authenticate themselves using their fingerprint.	Constraint	Static	Central Election Committee Policy
Election.AssistedVoting	Assisted Voting Mode can only be accessed by impaired individuals. It cannot be accessed without the approval of the Location Manager.	Constraint	Dynamic	Central Election Committee Policy, B&H Government Policy
Voting.Assisted	During Assisted Voting Mode, only two individuals can use the device.	Constraint	Static	B&H Government Policy
Voting.Authentication.Manual	Physically unable voters must authenticate themselves using their Social Security Number.	Constraint	Dynamic	B&H Government Policy
Voting.Selection.AnyChoice	A voter may choose to vote for any candidate and or party.	Fact	Static	B&H Government Election Rules
System.Selection.NoChoice	A voter may choose not to vote for any candidate and or party.	Fact	Static	B&H Government Election Rules
Election.President	Only one candidate for Presidency may be selected during any voting mode.	Constraint	Dynamic	B&H Government Election Rules
Election.Party	Only one party may be selected for all layers below the president during any voting mode	Constraint	Dynamic	B&H Government Election Rules
Election.Individual	Any number of individuals may be selected from one party, but not from multiple parties during any voting mode.	Constraint	Dynamic	B&H Government Election Rules
System.Vote.Interruption	If the voting process is interrupted for any reason, then the voting process will be restarted.	Action enabler	Dynamic	Security Policy
System.Vote.Encrypt	Every set of votes submitted will be end-to-end encrypted.	Fact	Static	Security Policy
System.Vote.Add	If a set of votes is submitted and deemed valid, then it is added to the total count.	Action enabler	Static	B&H Government Election Rules
System.Vote.Count	All votes are of equal weight (1) and are added to the total count for each candidate and or party upon each submission.	Computation	Static	B&H Government Election Rules
System.Vote.FinalCount	The candidate and parties with the largest number of votes are considered the winners of the election.	Interface	Static	B&H Government Election Rules

Table 1 Business Rules

2. Bibliography

- Wieggers, K. E., & Beatty, J. (2013). *Software requirements (Third Edition)*. Microsoft Press.
- Sommerville, I., & Sawyer, P. (2006). *Requirements engineering: A good practice guide*. John Wiley & Sons.
- Robertson, S., & Robertson, J. (2014). *Mastering the requirements process*. Addison-Wesley.
- Ajla, A., Amina, M., Nejira, S., Ivan, J., & Edin, Ž. (2022). *Vision and Scope Document for Fingerprint Voting System*. SE322 Software Requirements Analysis FALL2022.
- Ajla, A., Amina, M., Nejira, S., Ivan, J., & Edin, Ž. (2022). *User Requirements Document for Fingerprint Voting System*. SE322 Software Requirements Analysis FALL2022.
- Ambler, S. W. (2005). *The elements of UML 2.0 style*. Cambridge University Press.