**Network Authentication Utilizing Android Phone Application**

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1. **Introduction**

1. **Requirement**

* 1. **Functional Requirements**

IN-FN-01. The system shall allow a valid Phone number to be typed.

IN-FN-02. The system should allow the user to Submit their phone number.

PROC-FN-01. The system shall validate if the phone number entered is valid.

IN-FN-03. The system should allow the user to enter a Password.

OUT-FN-01. The system shall be able to display the Terms of use to the users.

OUT-FN-02. The system should allow the user to view their usage history for all their connected devices.

OUT-FN-03. The system should display denial reason if given through the system.

OUT-FN-04. The system should display the time remaining before another authentication is required.

PROC-FN-02. The system shall have a usage history of all cell phone numbers.

PROC -FN-03. The system shall allow the administrator to edit terms of use.

PROC -FN-04. The system shall allow the administrator to set a default use time length.

OUT-FN-05. The system shall allow the administrator to give a denial reason for a failed authentication.

PROC-FN-05. The system shall allow the administrator to set individual users use time.

PROC-FN-06. The system shall allow the administrator to manage users.

PROC-FN-07. The system shall allow the administrator to set up web request forwarding control.

PROC-FN-08. The system shall allow the administrator to set administrator accepted IP addresses/phone numbers in initial configuration.

PROC-FN-09. The system shall allow the administrator to add or remove administrator devices.

IN-FN-04. The system shall be able to receive text messages.

OUT-FN-06. The system shall be able to send text messages.

OUT-FN-07. The system shall send an auto accept push notification.

PROC-FN-10. The system shall be able to receive access requests.

PROC-FN-11. The system shall approve/deny access requests to specified router.

PROC-FN-12. The system shall automatically approve usage for a user.

PROC-FN-13. The system shall be capable of setting auto approve time.

PROC-FN-14. The system shall be able to set the default Gateway that this device approves.

PROC-FN-15. The system shall be able to manage a second network.

PROC-FN-16. The system shall store an auto accept history.

PROC-FN-17. The system shall mange message communication.

* 1. **Non-Functional Requirements**

PROC-NF-01. The system shall allow the administrator to set privileges.

PROC-NF-02. The system shall have a white list of users that are managed by the administrator.

PROC-NF-03. The system shall have a black list of websites managed by the administrator.

PROC-NF-04. The system shall store texting history utilizing the users phone number.

PROC-NF-05. The system shall hold data about usage and approved users.

PROC-NF-06. The system shall hold a whitelist and blacklist.

PROC-FN-07. The system shall mange message communication.

1. **Test Design**

|  |  |
| --- | --- |
| Test Case ID | *T01* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T02* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

|  |  |
| --- | --- |
| Test Case ID | *T03* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T04* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T05* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T06* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T07* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T08* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T09* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T10* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T11* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T12* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T13* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T14* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T15* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T16* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T17* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T18* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T19* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T20* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T21* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T22* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T23* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T24* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T25* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T26* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T27* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T28* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| Test Case ID | *T29* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

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| --- | --- |
| Test Case ID | *T30* |
| Purpose |  |
| Pre-conditions |  |
| Inputs |  |
| Expected Outputs |  |
| Post-conditions |  |
| Design Technique | *Reviewing Requirement* |

*Design as many test cases as needed to cover all functional and non-functional requirement listed in Section 2. Each test case should follow the above table format.*

1. **Traceability**

|  |  |
| --- | --- |
| Test Case Number | List of the Requirements tested |
| T01 | IN-FN-01, OUT-FN-01, … |
| T02 | RULE-04, … |
| T03 | IN-FN-09, … |

*Create a traceability table similar as the above example. Make sure each requirement is tested by some test case at least once.*

**Other instructions:**

* All documents shall have a footer that contains Team Name, Page Number, and Date
* All documents shall have a header that contains the name/title of the document.
* Professional appearance is very important.
* The stuff that is in italic should not be in the final version of the document.

1. **Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Action** | **Who Reviewed** | **Comments** |
|  | Created |  |  |
|  | Reviewed |  |  |
|  | Revised |  |  |
|  | Hand in |  |  |

1. **Glossary**

1. **Reference**