

SMART PRESCRIPTION APPLICATION

Traceability Record

By

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Acronym

NAT = NatthakanKaeokanpai

PHI = PhithiwatSiththitun

PROM = PrompongSugunnasil

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Chapter One | Introduction

1.1 Purpose

Traceability is the ability to verify the history, location, or application of an item by means of documented recorded identification. Other common definitions include the capability (and implementation) of keeping track of a given set or type of information to a given degree, or the ability to chronologically interrelate uniquely identifiable entities in a way that is verifiable

1.2 Project Scope

Smart prescription application can create the prescription of the patient in form of QR code that creates by a doctor. Smart prescription application requires a mobile application for scan QR code by the pharmacist. Pharmacist can get the prescription of patient with the detail of drug on a mobile application.

Smart prescription application can also record the history of allergy drug of patient and report to the Food and Drug Administration, Ministry of Public Health organization or (FDA) for observing unusually allergy drug that has been found in Thailand.

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Chapter Two | Traceability Record Table

| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | STC# |
|--------|---|---|-------|----------------------|-------|-------|-------|--------|--------|
| URS-01 | Doctors can view a doctor home page on the web application. | SRS-001 SRS-002 SRS-003 | UC-01 | Class-07 | UI-07 | SD-01 | AD-01 | UTC-01 | STC-01 |
| URS-02 | Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username. | SRS-001 SRS-004 SRS-005 SRS-006 SRS-007 SRS-008 SRS-009 SRS-010 SRS-011 SRS-012 SRS-013 SRS-014 SRS-015 SRS-016 SRS-017 SRS-018 SRS-019 SRS-020 SRS-113 | UC-02 | Class-09 Class-10 | UI-08 | SD-02 | AD-02 | UTC-11 | STC-02 |

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| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | STC# |
|--------|--|---|-------|----------------------|-------|-------|-------|--------|--------|
| URS-03 | Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username. | SRS-001 SRS-004 SRS-006 SRS-007 SRS-008 SRS-009 SRS-010 SRS-011 SRS-012 SRS-013 SRS-014 SRS-015 SRS-021 SRS-022 SRS-023 SRS-024 SRS-025 SRS-026 SRS-027 SRS-028 SRS-029 SRS-030 SRS-113 | UC-03 | Class-09 Class-10 | UI-09 | SD-03 | AD-03 | UTC-12 | STC-03 |
| URS-04 | Doctors can delete a patient's profile on the web application. | SRS-001 SRS-004 SRS-021 SRS-022 SRS-024 SRS-031 SRS-032 | UC-04 | Class-09 Class-10 | UI-10 | SD-04 | AD-04 | UTC-13 | STC-04 |

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| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | STC# |
|--------|---|---|-------|----------------------|-------|-------|-------|--------|--------|
| URS-05 | Doctors can search patient's profiles on the web application by using personal id, name, and surname. | SRS-001 SRS-004 SRS-021 SRS-022 SRS-024 SRS-030 SRS-035 SRS-036 SRS-114 | UC-05 | Class-09 Class-10 | UI-10 | SD-05 | AD-05 | UTC-14 | STC-05 |
| URS-06 | Doctors can view a patient's profile on the web application. | SRS-001 SRS-004 SRS-021 SRS-022 SRS-024 SRS-037 SRS-038 SRS-039 | UC-06 | Class-09 Class-10 | UI-11 | SD-06 | AD-06 | UTC-10 | STC-06 |
| URS-07 | Doctors can view list of patient's profiles on the web application. | SRS-001 SRS-004 SRS-021 SRS-022 SRS-030 | UC-07 | Class-09 Class-10 | UI-10 | SD-07 | AD-07 | UTC-09 | STC-07 |
| URS-08 | Administrators can view an admin home page on the web application. | SRS-001 SRS-040 SRS-041 | UC-08 | Class-06 | UI-02 | SD-08 | AD-08 | UTC-01 | STC-08 |

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|--------|--|--|-------|----------------------------------|-------|-------|-------|--------|--------|
| URS-09 | Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position. | SRS-001 SRS-004 SRS-042 SRS-043 SRS-044 SRS-045 SRS-046 SRS-047 SRS-048 SRS-049 SRS-050 SRS-051 SRS-052 SRS-111 SRS-115 SRS-116 | UC-09 | Class-03 Class-04 Class-05 | UI-03 | SD-09 | AD-09 | UTC-05 | STC-09 |

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|--------|--|---|-------|----------------------------------|-------|-------|-------|--------|--------|
| URS-10 | Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position. | SRS-001 SRS-004 SRS-021 SRS-023 SRS-043 SRS-044 SRS-045 SRS-046 SRS-047 SRS-048 SRS-049 SRS-050 SRS-054 SRS-055 SRS-056 SRS-057 SRS-058 SRS-059 SRS-111 SRS-115 SRS-116 | UC-10 | Class-03 Class-04 Class-05 | UI-04 | SD-10 | AD-10 | UTC-06 | STC-10 |
| URS-11 | Administrators can delete a user's profile on the web application. | SRS-001 SRS-004 SRS-021 SRS-031 SRS-054 SRS-055 SRS-059 SRS-060 SRS-061 SRS-062 | UC-11 | Class-03 Class-04 Class-05 | UI-05 | SD-11 | AD-11 | UTC-07 | STC-11 |

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| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | STC# |
|--------|---|---|-------|----------------------------------|-------|-------|-------|--------|--------|
| URS-12 | Administrators can search a user's profile on the web application by using name, surname, and username. | SRS-001 SRS-004 SRS-021 SRS-035 SRS-054 SRS-055 SRS-059 SRS-063 SRS-114 | UC-12 | Class-03 Class-04 Class-05 | UI-05 | SD-12 | AD-12 | UTC-08 | STC-12 |
| URS-13 | Administrators can view a user's profile on the web application. | SRS-001 SRS-004 SRS-021 SRS-037 SRS-039 SRS-054 SRS-055 SRS-064 | UC-13 | Class-03 Class-04 Class-05 | UI-06 | SD-13 | AD-13 | UTC-04 | STC-13 |
| URS-14 | Administrators can view list of user's profile on the web application. | SRS-001 SRS-004 SRS-021 SRS-054 SRS-059 | UC-14 | Class-03 Class-04 Class-05 | UI-05 | SD-14 | AD-14 | UTC-03 | STC-14 |
| URS-15 | Doctors, Administrations, and FDAs can login to the web application by using username and password. | SRS-065 SRS-068 SRS-069 SRS-070 SRS-071 SRS-072 SRS-073 SRS-074 SRS-117 | UC-15 | Class-01 Class-02 | UI-19 | SD-15 | AD-15 | UTC-01 | STC-15 |

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|--------|--|---|-------|--|-------|-------|-------|------------------|--------|
| URS-16 | Doctors, Administrations, and FDAs can logout from the web application. | SRS-001 SRS-075 | UC-16 | Class-02 | - | SD-16 | AD-16 | UTC-02 | STC-16 |
| URS-17 | Patients can login to the mobile application by using username and password. | SRS-066 SRS-067 SRS-076 SRS-077 SRS-078 SRS-079 | UC-17 | Class-15 Class-17 Class-18 Class-19 Class-23 | UI-20 | SD-17 | AD-17 | UTC-23 | STC-26 |
| URS-18 | Patients can logout from the mobile application. | SRS-080 SRS-081 | UC-18 | Class-13 Class-20 Class-26 | - | SD-18 | AD-18 | - | STC-27 |
| URS-19 | Patients can view the QR code on the mobile application. | SRS-082 SRS-083 SRS-084 | UC-19 | Class-13 Class-16 Class-20 Class-26 | UI-22 | SD-19 | AD-19 | UTC-24 UTC-25 | STC-28 |
| URS-20 | Pharmacists can scan the QR code on the mobile application. | SRS-085 SRS-086 SRS-087 | UC-20 | Class-14 Class-15 Class-23 | UI-23 | SD-20 | AD-20 | UTC-25 | STC-29 |
| URS-21 | Pharmacists can add the time of dispensation to the patient's profile on the mobile application. | SRS-088 SRS-089 SRS-090 | UC-21 | Class-13 Class-17 Class-21 Class-22 Class-26 | UI-24 | SD-21 | AD-21 | UTC-25 | STC-30 |
| URS-22 | Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug. | SRS-001 SRS-004 SRS-006 SRS-007 SRS-008 SRS-009 SRS-010 SRS-014 SRS-015 SRS-091 SRS-092 | UC-22 | Class-11 Class-12 | UI-12 | SD-22 | AD-22 | UTC-19 | STC-17 |

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|--------|--|---|-------|----------------------|-------|-------|-------|--------|--------|
| | | SRS-093 SRS-094 SRS-095 SRS-096 SRS-108 | | | | | | | |
| URS-23 | Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug. | SRS-001 SRS-004 SRS-006 SRS-007 SRS-008 SRS-009 SRS-010 SRS-014 SRS-015 SRS-021 SRS-023 SRS-053 SRS-092 SRS-097 SRS-098 SRS-099 SRS-100 SRS-101 SRS-102 SRS-103 SRS-108 | UC-23 | Class-11 Class-12 | UI-13 | SD-23 | AD-23 | UTC-20 | STC-18 |

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| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | TC# |
|--------|--|--|-------|----------------------|-------|-------|-------|--------|--------|
| URS-24 | Doctors can delete an allergy report on the web application. | SRS-001 SRS-004 SRS-021 SRS-031 SRS-053 SRS-097 SRS-103 SRS-104 SRS-105 SRS-106 | UC-24 | Class-11 Class-12 | UI-14 | SD-24 | AD-24 | UTC-21 | STC-19 |
| URS-25 | Doctors can search an allergy report on the web application by using personal id, name, and surname. | SRS-001 SRS-004 SRS-021 SRS-035 SRS-053 SRS-097 SRS-103 SRS-107 SRS-114 | UC-25 | Class-11 Class-12 | UI-14 | SD-25 | AD-25 | UTC-22 | STC-20 |
| URS-26 | Doctors can view an allergy drug report on the web application. | SRS-001 SRS-004 SRS-021 SRS-037 SRS-043 SRS-053 SRS-097 | UC-26 | Class-11 Class-12 | UI-15 | SD-26 | AD-26 | UTC-16 | STC-21 |
| URS-27 | Doctors can view list of allergy drug reports on the web application. | SRS-001 SRS-004 SRS-021 SRS-053 SRS-103 | UC-27 | Class-11 Class-12 | UI-14 | SD-27 | AD-27 | UTC-15 | STC-22 |

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| URS# | Description | SRS# | UC# | Class# | UI# | SD# | AD# | UTC# | TC# |
|--------|---|--|-------|----------------------|-------|-------|-------|--------|--------|
| URS-28 | FDAs can view a FDA home page on the web application. | SRS-001 SRS-109 SRS-110 | UC-28 | Class-08 | UI-16 | SD-28 | AD-28 | UTC-01 | STC-23 |
| URS-29 | FDAs can view an allergy report on the web application. | SRS-001 SRS-004 SRS-037 SRS-043 SRS-053 SRS-097 | UC-29 | Class-11 Class-12 | UI-18 | SD-29 | AD-29 | UTC-18 | STC-24 |
| URS-30 | FDAs can view list of allergy reports on the web application. | SRS-001 SRS-004 SRS-053 SRS-103 SRS-112 | UC-30 | Class-11 Class-12 | UI-17 | SD-30 | AD-30 | UTC-17 | STC-26 |


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User Requirement Specification

- URS-01: Doctors can view a doctor home page on the web application.
- URS-02: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- URS-03: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- URS-04: Doctors can delete a patient's profile on the web application.
- URS-05: Doctors can search patient's profiles on the web application by using personal id, name, and surname.
- URS-06: Doctors can view a patient's profile on the web application.
- URS-07: Doctors can view list of patient's profiles on the web application.
- URS-08: Administrators can view an admin home page on the web application.
- URS-09: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- URS-10: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- URS-11: Administrators can delete a user's profile on the web application.
- URS-12: Administrators can search a user's profile on the web application by using name, surname, and username.
- URS-13: Administrators can view a user's profile on the web application.
- URS-14: Administrators can view list of user's profile on the web application.
- URS-15: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- URS-16: Doctors, Administrations, and FDAs can logout from the web application.
- URS-17: Patients can login to the mobile application by using username and password.
- URS-18: Patients can logout from the mobile application.
- URS-19: Patients can view the QR code on the mobile application.
- URS-20: Pharmacists can scan the QR code on the mobile application.
- URS-21: Pharmacists can add the time of dispensation to the patient's profile on the mobile application.
- URS-01: Doctors can view a doctor home page on the web application.
- URS-22: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- URS-23: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- URS-24: Doctors can delete an allergy report on the web application.
- URS-25: Doctors can search an allergy report on the web application by using personal id, name, and surname.
- URS-26: Doctors can view an allergy drug report on the web application.
- URS-27: Doctors can view list of allergy drug reports on the web application.
- URS-28: FDAs can view a FDA home page on the web application.
- URS-29: FDAs can view an allergy report on the web application.
- URS-30: FDAs can view list of allergy reports on the web application.

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System Requirement Specification


- SRS-001: The system shall provide menu bars (home, and logout).
- SRS-002: The system shall provide patient options menu box (create patient and manage patient) and allergy options menu box (create allergy report and manage allergy reports).
- SRS-003: The system shall display information of current doctor which includes position, name, surname and username.
- SRS-004: The system shall provide the breadcrumb link.
- SRS-005: The system shall provide patient create form for input information which includes personal ID, name, surname, prescription, and username.
- SRS-006: The system shall display error message “Personal ID cannot be blank.” when doctors do not input personal ID.
- SRS-007: The system shall display error message “Personal ID has already been exist.” when doctors input personal ID that exist in the database.
- SRS-008: The system shall display error message “Personal ID is invalid” when doctors input wrong personal Id.
- SRS-009: The system shall display error message “Name cannot be blank.” when doctors do not input name.
- SRS-010: The system shall display error message “Surname cannot be blank.” when doctors do not input surname.
- SRS-011: The system shall display error message “Prescription cannot be blank.” when doctors do not input prescription.
- SRS-012: The system shall display error message “Username cannot be blank.” when doctors do not input username.
- SRS-013: The system shall display error message “Username has already been taken. Please change.” when doctors input username that repeated with the database.
- SRS-014: The system shall display error message “Name is invalid.” when doctors input name with not a letter on English language.
- SRS-015: The system shall display error message “Surname is invalid.” when doctors input surname with not a letter on English language.
- SRS-016: The system shall provide a ‘Create’ button for creating patient’s profiles.
- SRS-017: The system shall generate the password to a patient’s profile, which is 5 digits number.
- SRS-018: The system shall store date time of creating profile into the database when doctors click ‘Create’ button.
- SRS-019: The system shall store name of doctor into the database for responsible when doctors click ‘Create’ button
- SRS-020: The system shall save data of patient’s profiles to database when doctors click a ‘Create’ button and redirect user to patient’s profile UI.
- SRS-021: The system shall provide the manage page, which includes create button, search text field, search button.
- SRS-022: The system shall provide the table lists of patient which include seven columns (no., personal ID, name, surname, responsible, create date and options.)
- SRS-023: The system shall provide ‘Update’ button () in the options column of table.
- SRS-024: The system shall retrieve patient’s profiles from database.
- SRS-025: The system shall provide patient update profiles form that has default information (personal ID, name, surname, prescription, and username).
- SRS-026: The system shall provide a ‘Update’ button for updating patient’s profiles.
- SRS-027: The system shall store date time of updating profile into the database when doctors click ‘Update’ button.

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SRS-028: The system shall store name of doctor into the database for responsible when doctors click 'Update' button

SRS-029: The system shall save a new data of patient's profiles to database when doctors click 'Update' button and redirect user to patient's profile UI.

SRS-030: The system shall display the message to show the number and total amount of patient's profiles.

SRS-031: The system shall provide 'Delete' button () in the options column of table.


SRS-032: The system shall interface to show the confirm box "Are you sure you want to delete this item?" when doctors click 'Delete' button on the web application.

SRS-033: The system shall be able to delete a patient's profiles from the database when doctors click 'OK' button on the confirm box.

SRS-034: The system shall be not able to delete a patient's profiles from the database when doctors click 'Cancel' button.

SRS-035: The system shall display the message "No results found", when the data that input does not exist in the database.

SRS-036: The system shall display the patient's information on the table, when searching found the match letters exist in the database.

SRS-037: The system shall provide 'View' button () in the options column of table.

SRS-038: The system shall provide the patient's profiles UI, which includes personal ID, name, surname, prescription, responsible, username, password, create date and update date of patient's profiles.

SRS-039: The system shall provide the 'Update' button and 'Delete' button.

SRS-040: The system shall provide user options menu box (create user and manage user).

SRS-041: The system shall display information of current admin which includes position, name, surname and username.

SRS-042: The system shall provide user's profiles form for input information which include name, surname, username, password, confirm-password and select points of position (Administrator, Doctor, and FDA).

SRS-043: The system shall display error message "Name cannot be blank." when admins do not input name.

SRS-044: The system shall display error message "Surname cannot be blank." when admins do not input surname.

SRS-045: The system shall display error message "Username cannot be blank." when admins do not input username.

SRS-046: The system shall display error message "Username has already been taken. Please change." when admins input username that repeated with the database.

SRS-047: The system shall display error message "Password and Confirm-Password do not Match, Please try again." when admins input password and confirm-password do not match.

SRS-048: The system shall display error message "Name is invalid." when admins input name with not a letter on English language.

SRS-049: The system shall display error message "Surname is invalid." when admins input surname with not a letter on English language.

SRS-050: The system shall display error message "Position cannot be blank." when admins do not select the position.

SRS-051: The system shall provide a 'Create' button for creating user's profile.

SRS-052: The system shall save data of user's profiles to database when admins click a 'Create' button and redirect user to user's profile UI.

SRS-053: The system shall provide the table lists of patient which include seven columns (no., personal ID, name, surname, reporter, create date and options.)

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- SRS-054: The system shall provide the table lists of user which include six columns (no., position, name, surname, username and options.)
- SRS-055: The system shall retrieve user's profiles from database.
- SRS-056: The system shall provide user update form that has default information (name, surname, username, password, confirm-password and position).
- SRS-057: The system shall provide a 'Update' button for updating user's profiles.
- SRS-058: The system shall save a new data of user's profiles to database when admins click 'Update' button and redirect user to user's profile UI.
- SRS-059: The system shall display the message to show the number and total amount of user's profiles.
- SRS-060: The system shall interface to show the confirm box "Are you sure you want to delete this item?" when admins click 'Delete' button on the web application.
- SRS-061: The system shall be able to delete a user's profiles from the database when admins click 'OK' button on the confirm box.
- SRS-062: The system shall be not able to delete a user's profiles from the database when admins click 'Cancel' button.
- SRS-063: The system shall display the user's information on the table, when searching found the match letters exist in the database.
- SRS-064: The system shall provide the user's profiles page, which includes Id, name, surname, username, password, confirm-password and position.
- SRS-065: The system shall provide the login form, to receive username and password.
- SRS-066: The system displays the alert message "Cannot be blank" if users do not input the username and password on the login form.
- SRS-067: The system shall redirect user to the main page if user login successful
- SRS-068: The system shall validate username and password from database.
- SRS-069: The system shall provide 'Login' button for login to the web application.
- SRS-070: The system shall displays error message "Username cannot be blank." when user do not input username.
- SRS-071: The system shall displays error message "Password cannot be blank." when user do not input password.
- SRS-072: The system shall displays error box message "Username is incorrect!" when username does not exist in the database.
- SRS-073: The system shall displays error box message "Password is incorrect!" when password does not exist in the database.
- SRS-074: The system shall redirect user to particular home page if users login success.
- SRS-075: The system shall redirect users to main page if users click logout button.
- SRS-076: The system shall provide the login form, to receive username and password.
- SRS-077: The system shall validate username and password from database.
- SRS-078: The system shall provide 'login' button for login to the mobile application.
- SRS-079: The system shall display message "Incorrect username or password" if username or password.
- SRS-080: The system shall provide "logout" button on the main page.
- SRS-081: The system shall redirect users to the login page if users click 'logout' button.
- SRS-082: The system shall provide the QR code page, which includes exit button and "Show QR code" button.
- SRS-083: The system shall generate the QR code after select "Show QR code" button.
- SRS-084: The system shall display the QR code to patient.
- SRS-085: The system shall provide the scan QR button for open the scan QR function.
- SRS-086: The system shall scan QR code on the mobile application.
- SRS-087: The system shall provide the information of patient after scan QR code completed.
- SRS-088: The system shall provide 'confirm' button for specify prescription.

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SRS-089: The system shall display message “Successful” after select “confirm” button.

SRS-090: The system shall record the current time to the patient’s profile.

SRS-091: The system shall provide allergy report create form for input information which includes personal ID, name, surname, and allergy drug.

SRS-092: The system shall display error message “Allergy Drug cannot be blank.” when doctors do not input allergy drug.

SRS-093: The system shall provide a ‘Create’ button for creating allergy report.

SRS-094: The system shall store date time of creating report into the database when doctors click ‘Create’ button.

SRS-095: The system shall store name of doctor into the database for reporter when doctors click ‘Create’ button

SRS-096: The system shall save data of allergy report to database when doctors click a ‘Create’ button and redirect user to allergy report UI.

SRS-097: The system shall retrieve allergy report from database.

SRS-098: The system shall provide allergy report update form that has default information (personal ID, name, surname, and allergy drug).

SRS-099: The system shall provide a ‘Update’ button for updating allergy report.

SRS-100: The system shall store date time of updating profile into the database when doctors click ‘Update’ button.

SRS-101: The system shall store name of doctor into the database for reporter when doctors click ‘Update’ button

SRS-102: The system shall save a new data of allergy report to database when doctors click ‘Update’ button and redirect user to allergy report page.

SRS-103: The system shall display the message to show the number and total amount of allergy reports.

SRS-104: The system shall interface to show the confirm box “Are you sure you want to delete this item?” when doctors click ‘Delete’ button on the web application.

SRS-105: The system shall be able to delete an allergy report from the database when doctors click ‘OK’ button on the confirm box.

SRS-106: The system shall be not able to delete an allergy report from the database when doctors click ‘Cancel’ button.

SRS-107: The system shall display the user’s information on the table, when searching found the match letters exist in the database.

SRS-108: The system shall validate personal ID, name, surname, and allergy drug by Ajax validation.

SRS-109: The system shall provide allergy options menu box (view reports list).

SRS-110: The system shall display information of current FDA which includes position, name, surname and username.

SRS-111: The system shall validate name, surname, username, password, confirm-password and position by Ajax validation.

SRS-112: The system shall provide the list of allergy report page,

SRS-113: The system shall validate personal id, name, surname, prescription, and username by Ajax validation.

SRS-114: The system shall validate input data by Ajax validation.

SRS-115: The system shall display error message “Password cannot be blank.” when admins does not input password.

SRS-116: The system shall display error message “Confirm-Password cannot be blank.” when admins does not input confirm-password.

SRS-117: The system shall provide menu bars (home, and login).

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Use case

- UC-01: Doctors can view a doctor home page on the web application.
- UC-02: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- UC-03: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- UC-04: Doctors can delete a patient's profile on the web application.
- UC-05: Doctors can search patient's profiles on the web application by using personal id, name, and surname.
- UC-06: Doctors can view a patient's profile on the web application.
- UC-07: Doctors can view list of patient's profiles on the web application.
- UC-08: Administrators can view an admin home page on the web application.
- UC-09: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- UC-10: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- UC-11: Administrators can delete a user's profile on the web application.
- UC-12: Administrators can search a user's profile on the web application by using name, surname, and username.
- UC-13: Administrators can view a user's profile on the web application.
- UC-14: Administrators can view list of user's profile on the web application.
- UC-15: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- UC-16: Doctors, Administrations, and FDAs can logout from the web application.
- UC-17: Patients can login to the mobile application by using username and password.
- UC-18: Patients can logout from the mobile application.
- UC-19: Patients can view the QR code on the mobile application.
- UC-20: Pharmacists can scan the QR code on the mobile application.
- UC-21: Pharmacists can add the time of dispensation to the patient's profile on the mobile application.
- UC-01: Doctors can view a doctor home page on the web application.
- UC-22: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- UC-23: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- UC-24: Doctors can delete an allergy report on the web application.
- UC-25: Doctors can search an allergy report on the web application by using personal id, name, and surname.
- UC-26: Doctors can view an allergy drug report on the web application.
- UC-27: Doctors can view list of allergy drug reports on the web application.
- UC-28: FDAs can view a FDA home page on the web application.
- UC-29: FDAs can view an allergy report on the web application.
- UC-30: FDAs can view list of allergy reports on the web application.

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Class

Class-01: LoginForm
Class-02: SiteController
Class-03: User
Class-04: UserController
Class-05: Role
Class-06: AdminController
Class-07: DoctorController
Class-08: FdaController
Class-09: Patient
Class-10: PatientController
Class-11: Allergy
Class-12: AllergyController
Class-13: MainActivity
Class-14: QrEncodeActivity
Class-15: LoginActivity
Class-16: QRCodeEncoder
Class-17: ApiService
Class-18: LoginListener
Class-19: LoginEventManager
Class-20: PreferencesManager
Class-21: PrescriptionManager
Class-22: UpdateTimeListener
Class-23: LoginFragment
Class-24: MainFragment

User Interface

UI-01: Main page
UI-02: Administration home page
UI-03: Create user page
UI-04: Update user page
UI-05: Manage users page
UI-06: User's profile page
UI-07: Doctor home page
UI-08: Create patient page
UI-09: Update patient page
UI-10: Manage patients page
UI-11: Patient's profile page
UI-12: Create allergy report page
UI-13: Update allergy report page
UI-14: Manage allergy reports page
UI-15: Allergy report page
UI-16: FDA home page
UI-17: List allergy reports page
UI-18: FDA Allergy report page
UI-19: Login page
UI-20: Login page (mobile)
UI-21: Main page (mobile)
UI-22: QR code page (mobile)
UI-23: Scan QR code page (mobile)
UI-24: Pharmacist page (mobile)

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Activity Diagram

- AD-01: Doctors can view a doctor home page on the web application.
- AD-02: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- AD-03: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- AD-04: Doctors can delete a patient's profile on the web application.
- AD-05: Doctors can search patient's profiles on the web application by using personal id, name, and surname.
- AD-06: Doctors can view a patient's profile on the web application.
- AD-07: Doctors can view list of patient's profiles on the web application.
- AD-08: Administrators can view an admin home page on the web application.
- AD-09: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- AD-10: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- AD-11: Administrators can delete a user's profile on the web application.
- AD-12: Administrators can search a user's profile on the web application by using name, surname, and username.
- AD-13: Administrators can view a user's profile on the web application.
- AD-14: Administrators can view list of user's profile on the web application.
- AD-15: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- AD-16: Doctors, Administrations, and FDAs can logout from the web application.
- AD-17: Patients can login to the mobile application by using username and password.
- AD-18: Patients can logout from the mobile application.
- AD-19: Patients can view the QR code on the mobile application.
- AD-20: Pharmacists can scan the QR code on the mobile application.
- AD-21: Pharmacists can add the time of dispensation to the patient's profile on the mobile application.
- AD-22: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- AD-23: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- AD-24: Doctors can delete an allergy report on the web application.
- AD-25: Doctors can search an allergy report on the web application by using personal id, name, and surname.
- AD-26: Doctors can view an allergy drug report on the web application.
- AD-27: Doctors can view list of allergy drug reports on the web application.
- AD-28: FDAs can view a FDA home page on the web application.
- AD-29: FDAs can view an allergy report on the web application.
- AD-30: FDAs can view list of allergy reports on the web application.

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Sequence Diagram

- SD-01: Doctors can view a doctor home page on the web application.
- SD-02: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- SD-03: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- SD-04: Doctors can delete a patient's profile on the web application.
- SD-05: Doctors can search patient's profiles on the web application by using personal id, name, and surname.
- SD-06: Doctors can view a patient's profile on the web application.
- SD-07: Doctors can view list of patient's profiles on the web application.
- SD-08: Administrators can view an admin home page on the web application.
- SD-09: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- SD-10: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- SD-11: Administrators can delete a user's profile on the web application.
- SD-12: Administrators can search a user's profile on the web application by using name, surname, and username.
- SD-13: Administrators can view a user's profile on the web application.
- SD-14: Administrators can view list of user's profile on the web application.
- SD-15: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- SD-16: Doctors, Administrations, and FDAs can logout from the web application.
- SD-17: Patients can login to the mobile application by using username and password.
- SD-18: Patients can logout from the mobile application.
- SD-19: Patients can view the QR code on the mobile application.
- SD-20: Pharmacists can scan the QR code on the mobile application.
- SD-21: Pharmacists can add the time of dispensation to the patient's profile on the mobile application.
- SD-22: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- SD-23: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- SD-24: Doctors can delete an allergy report on the web application.
- SD-25: Doctors can search an allergy report on the web application by using personal id, name, and surname.
- SD-26: Doctors can view an allergy drug report on the web application.
- SD-27: Doctors can view list of allergy drug reports on the web application.
- SD-28: FDAs can view a FDA home page on the web application.
- SD-29: FDAs can view an allergy report on the web application.
- SD-30: FDAs can view list of allergy reports on the web application.

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Unit Test Case

UTC-01: login(String username, String password) : Boolean
UTC-02: logout() : Boolean
UTC-03: getUserList() : ArrayList
UTC-04: viewUser(Int userId) : Mixed
UTC-05: createUser(User user) : Boolean
UTC-06: updateUser(User user) : Boolean
UTC-07: deleteUser(Int userId) : Boolean
UTC-08: searchUser(String users) : ArrayList
UTC-09: getPatientList() : ArrayList
UTC-10: viewPatient(Int personal_id) : Mixed
UTC-11: createPatient(Patient patient) : Boolean
UTC-12: updatePatient(Patient patient) : Boolean
UTC-13: deletePatient(Int personal_id) : Boolean
UTC-14: searchPatient(String patients) : ArrayList
UTC-15: getAllergyList() : ArrayList
UTC-16: viewAllergy(Int allergy_id) : Mixed
UTC-17: getAllergyList2() : ArrayList
UTC-18: viewAllergy2(Int allergy_id) : Mixed
UTC-19: createAllergy(Allergy allergy) : Boolean
UTC-20: updateAllergy(Allergy allergy) : Boolean
UTC-21: deleteAllergy(Int allergy_id) : Boolean
UTC-22: searchAllergy(String allergies) : ArrayList
UTC-23: Login() : void
UTC-24: getUserInformation() : UserInformationModel
UTC-25: encode(String contents, BarcodeFormat format, int width, int height): BitMatrix

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System Test Case

- STC-01: Doctors can view a doctor home page on the web application.
- STC-02: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- STC-03: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- STC-04: Doctors can delete a patient's profile on the web application.
- STC-05: Doctors can search patient's profiles on the web application by using personal id, name, and surname.
- STC-06: Doctors can view a patient's profile on the web application.
- STC-07: Doctors can view list of patient's profiles on the web application.
- STC-08: Administrators can view an admin home page on the web application.
- STC-09: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- STC-10: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- STC-11: Administrators can delete a user's profile on the web application.
- STC-12: Administrators can search a user's profile on the web application by using name, surname, and username.
- STC-13: Administrators can view a user's profile on the web application.
- STC-14: Administrators can view list of user's profile on the web application.
- STC-15: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- STC-16: Doctors, Administrations, and FDAs can logout from the web application.
- STC-17: Patients can login to the mobile application by using username and password.
- STC-18: Patients can logout from the mobile application.
- STC-19: Patients can view the QR code on the mobile application.
- STC-20: Pharmacists can scan the QR code on the mobile application.
- STC-21: Pharmacists can add the time of dispensation to the patient's profile on the mobile application.
- STC-01: Doctors can view a doctor home page on the web application.
- STC-22: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- STC-23: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- STC-24: Doctors can delete an allergy report on the web application.
- STC-25: Doctors can search an allergy report on the web application by using personal id, name, and surname.
- STC-26: Doctors can view an allergy drug report on the web application.
- STC-27: Doctors can view list of allergy drug reports on the web application.
- STC-28: FDAs can view a FDA home page on the web application.
- STC-29: FDAs can view an allergy report on the web application.
- STC-30: FDAs can view list of allergy reports on the web application.

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