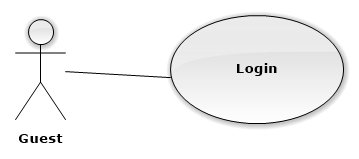
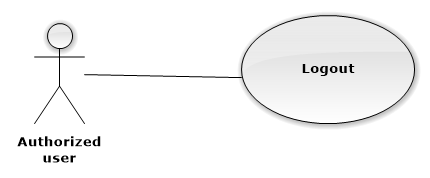
### List of Use Case

##### <User> Log in



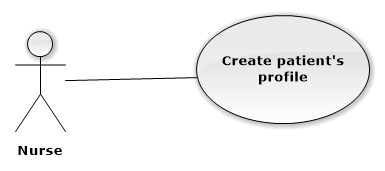
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| **USE CASE - UCA01** | | | |
| **Use Case No.** | UCA01 | **Use Case Version** | 1.0 |
| **Use Case Name** | Log in | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | Normal |
| **Actor:**   * Doctor, doctor manager, nurse, staff, administrator.   **Summary:**   * This use case allows authorized user logging in system.   **Goal:**   * User can log in the system.   **Triggers:**   * User send the login command.   **Preconditions:**   * N/A.   **Post Conditions:**   * **Success:** User login system. * **Fail:** Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | User goes to login view. | System require information:   * Username: free text input. * Password: free text input. | | 2 | User input information |  | | 3 | User send login command. | Guest will login system.  [Alternative 1]  [Exception 1] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Use input wrong information | System show error message. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 |  | *System show message that system is busy.* |   **Relationships:** none  **Business Rules:**   * Password are encrypted before sending to server. * After login to system, user will see suitable view basing their role.   + Doctor will see Doctor view, including list of patient and appointment schedule.  + Nurse will see Nurse view, including list of patient and register patient view.  + Doctor Manager will see list of regimen.  + Administrator will see list of user account.  + Staff will see list of available device. | | | |

##### <User> Log out



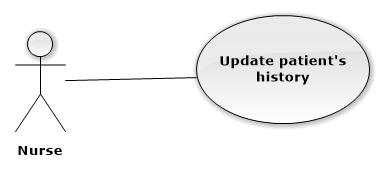
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| **USE CASE – UCA02** | | | |
| **Use Case No.** | UCA02 | **Use Case Version** | 1.1 |
| **Use Case Name** | Log out | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Authorized user.   **Summary:**   * This use case allows authorized user logging out of system.   **Goal:**   * User can see the login view of web application.   **Triggers:**   * User send logout command or send other command after not available too long.   **Preconditions:**   * User must be logged in the system before.   **Post Conditions:**   * **Success:** Display login view. * **Fail:** Display login view.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | User send log out command  [Alternative 1] | Display login view. |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | User send any command after not available too long. | Display login view. |   **Exceptions:**  **Relationships:** N/A  **Business Rules:**   * If user not available longer than 5 minutes, they will see the login view when they be back. | | | |

##### <Nurse> Create patient’s profile



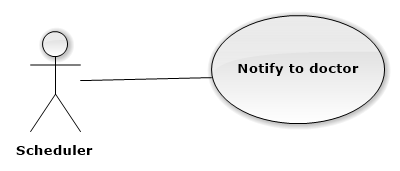
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| **USE CASE – UCA03** | | | |
| **Use Case No.** | UCA03 | **Use Case Version** | 1.0 |
| **Use Case Name** | Create patient profile | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Nurse.   **Summary:**   * This use case allows nurse to register new patient profile.   **Goal:**   * Nurse can create new patient profile.   **Triggers:**   * Nurse send create patient profile command.   **Preconditions:**   * User must be logged in system before with role “Nurse”.   **Post Conditions:**   * **Success:**   + New patient profile is created in storage.  + Credential information is sent to patient.  + Doctor will see new appointment with patient in his/her scheduler.   * **Fail:** Display error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Nurse send create patient profile command. | System require inputting information:   * Patient name: free text input, required, length = 3- 50. * Birthdate: date time input, required, value from 1900 to current year. * Gender: input text, required, value is F (Female) or M (Male) * Weight: free text input, required, value = 1- 1000, unit: kilogram. * Height: free text input, required, value = 1- 300, unit: centimeter. * Doctor: free text input, required, value is the available doctor in system. * Symptom: free text input, required, length = 10 – 1000. * Email: free text input, required, length = 10 – 100. * Phone number: free text input, required, max length = 15. | | 2 | Nurse input all required information |  | | 3 | Nurse send register patient profile command | Display message that profile has been created. Credential information is sent to patient’s email.  [Alternative 1]  [Exception 1]  [Exception 2]  [Exception 3] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Nurse send cancel command. | Display main view. New patient’s profile data is not created. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Nurse send register patient profile command without inputting all required fields. | System notice that user need to input all required field. | | 2 | Nurse send register command | System display error message that can’t create new patient profile. New register patient profile request is aborted. | | 3 | Nurse send register command | System notify user that email is existed in system, required user inputting again. |   **Relationships:** N/A.  **Business Rules:**   * With old patient, nurse don’t need to create new patient profile. * New patient profile will be create with required information. * Symptom is the clinical status of patient when get sick, so it should be clear, short and easy to understand. * An email contain username and password should be send to patient, patient can use this credential information to login system. * The initial status of patient account will be set to ACTIVE. * Based on clinical symptom, new medical record data will be created. The initial status of this medical record will be set to AWAITING TO CHECK. | | | |

##### <Nurse> Update patient’s history



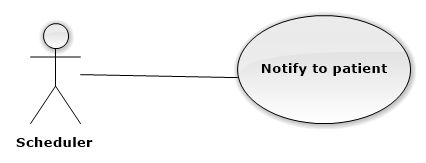
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| **USE CASE – UCA04** | | | |
| **Use Case No.** | UCA04 | **Use Case Version** | 1.0 |
| **Use Case Name** | Update patient’s history. | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Nurse.   **Summary:**   * This use case allows nurse to update new patient’s history.   **Goal:**   * Nurse can update new medical record data related to patient into system.   **Triggers:**   * Nurse send updating patient’s history command.   **Preconditions:**   * User must be logged in system before with role “Nurse”. * The patient profile must is available before.   **Post Conditions:**   * **Success:**   + New patient’s history is created in storage.  + Doctor will see new appointment with patient in his/her scheduler.   * **Fail:** Display error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Nurse send update patient’s history command. | System require inputting information:   * Weight: free text input, required, value = 1- 1000, unit: kilogram. * Height: free text input, required, value = 1- 300, unit: centimeter. * Doctor: free text input, required, value is the available doctor in system. * Symptom: free text input, required, length = 10 – 1000. | | 2 | Nurse input all require field |  | | 3 | Nurse send update history command | Display that new patient’s history is added into system.  [Alternative 1]  [Exception 1]  [Exception 2] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Nurse send cancel command | Display main view. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Nurse send register patient profile command without inputting all required fields. | System notice that user need to input all required field. | | 2 | Nurse send update history command | System display error message that can’t update patient’s history. No medical record data is insert into storage. |   **Relationships:** N/A.  **Business Rules:**   * Clinical symptom must be clearly, shortly. * Patient’s profile must be available before. * Based on clinical symptom, new medical record data will be created. The initial status of this medical record will be set to AWAITING TO CHECK. | | | |

##### <Scheduler> Notify to doctor.



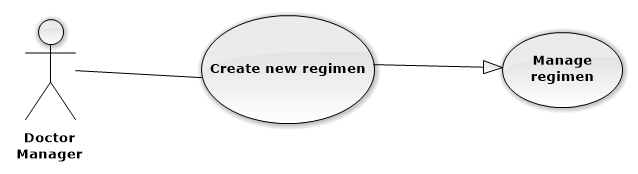
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| **USE CASE – UCA07** | | | |
| **Use Case No.** | UCA07 | **Use Case Version** | 1.0 |
| **Use Case Name** | Notify to doctor. | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Scheduler.   **Summary:**   * This use case allows doctor receiving notification.   **Goal:**   * Scheduler can send notification to doctor.   **Triggers:**   * The scheduling time is configured.   **Preconditions:**   * Patient feedback is inserted into storage.   **Post Conditions:**   * **Success:** Doctor will receive notification, new notification data is inserted into storage. * **Fail:**   + Doctor won’t receive notification.  **+** Log file will record error and time.  **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | System read all unprocessed feedback from storage.  [Exception 1]  With new feedback, system:   * Send new notification to doctor. * Insert new notification data to storage. * Generate log file. [Alternative 1] [Exception 2] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | *Server checks the current time.*  *If it hits configured time, scheduler* *process starts.* | If old notification have been not sent yet:   * Send new notification to doctor. * Update status of notification process to storage (uncompleted or not). * - Generate log file |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | Scheduler can’t start:   * Generate log file with error and time. * Send notification to system administrator if need. | | 2 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | System can’t send notification to doctor:   * Generate log file with error and time. * Notification data is inserted into storage. |   **Relationships:** N/A.  **Business Rules:**   * Scheduler will try to send notification to doctor in 3 times/scheduler running time. * If notification is sent to doctor successfully, the status of notification data in storage will be set COMPLETED. * If notification can’t be sent to doctor successfully, the status of notification data in storage will be set UNCOMPLETED. The uncompleted notification will be try to send to doctor in next scheduling. | | | |

##### <Scheduler> Notify to patient.



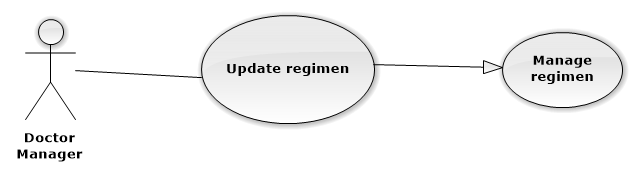
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| **USE CASE – UCA07** | | | |
| **Use Case No.** | UCA08 | **Use Case Version** | 1.0 |
| **Use Case Name** | Notify to patient. | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Scheduler.   **Summary:**   * This use case allows patient receiving notification.   **Goal:**   * Scheduler can send notification to patient.   **Triggers:**   * The scheduling time is configured.   **Preconditions:**   * Appointment request data is inserted in storage before. * Prescription data is inserted in storage before.   **Post Conditions:**   * **Success:** Patient will receive notification, new notification data is inserted into storage. * **Fail:**   + Patient won’t receive notification.  **+** Log file will record error and time.  **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | System read all unprocessed prescription and appointment request from storage.  [Exception 1]  With new record, system:   * Send new notification to patient. * Insert new notification data to storage. * Generate log file. [Alternative 1] [Exception 2] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | *Server checks the current time.*  *If it hits configured time, scheduler* *process starts.* | If old notification have been not sent yet:   * Send new notification to patient. * Update status of notification process to storage (uncompleted or not). * - Generate log file |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | Scheduler can’t start:   * Generate log file with error and time. * Send notification to system administrator if need. | | 2 | *Server checks the current time.* *If it hits configured time, scheduler* *process starts.* | System can’t send notification to doctor:   * Generate log file with error and time. * Notification data is inserted into storage. |   **Relationships:** N/A.  **Business Rules:**   * Scheduler will try to send notification to patient in 3 times/scheduler running time. * If notification is sent to patient successfully, the status of notification data in storage will be set COMPLETED. * If notification can’t be sent to patient successfully, the status of notification data in storage will be set UNCOMPLETED. * The uncompleted notification will be try to send to patient in next scheduling. | | | |

##### <Doctor> Create new regimen



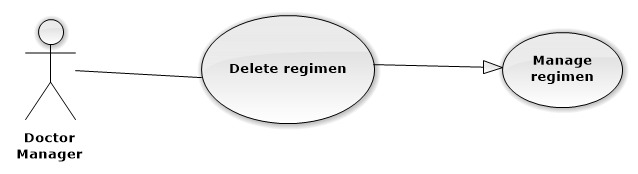
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| **USE CASE – UCA09** | | | |
| **Use Case No.** | UCA09 | **Use Case Version** | 1.0 |
| **Use Case Name** | Create new regimen | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Doctor Manager.   **Summary:**   * This use case allows doctor manager create new regimen.   **Goal:**   * Regimen data for an illness is created in storage.   **Triggers:**   * Doctor send create regimen command.   **Preconditions:**   * User must login system before with role “Doctor Manager”.   **Post Conditions:**   * **Success:** New regimen data is inserted into storage. * **Fail:** New regimen data is not created into storage, system display error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Doctor manager send create new regimen command | System require input fields:   * Name of regimen: free text input, required, max length = 100. * Name of illness: free text input, max length = 100. * Range of patient’ age for apply: free text input, required, value is 1-100. * Detail of treatment phase:   + Number of treatment day: free text input, required, value is positive number only.  + Medicine name: free text input, required, value is available medicine in system.  + Using time: free text input, required, value is 0-23.  + Food name: free text input, optional, value is available food in system.  + Eating time: free text input, required if food name is not empty, value is 0-23  + Practice name: free text input, optional, value is available practice *in system.*  + Practice time: free text input, required if practice name is not empty, value from 0-23.  [Alternative 1] | | 2 | Doctor manager input all required field. |  | | 3 | Doctor manager send create regimen command | System required doctor manager confirming all inputted information  [Alternative 1]  [Exception 1] | | 4 | Doctor manager send submit command | System validate all information. If all information is valid, new regimen and detail of phases, medicines, foods and practices data are created in storage.  [Alternative 2] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Doctor manager send cancel command | Display main view. Regimen data is not created in storage. | | 2 | Doctor manager send submit command | If inputted information is invalid, system notify doctor manager need to check and input fields again. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Doctor manager send create regimen command without inputting all required fields. | System notice that user need to input all required field. | | 2 | Doctor manager send submit command | System display error message that can’t create new regimen data. Creating regimen request is aborted. |   **Relationships:** N/A.  **Business Rules:**   * Name of regimen must not same as any available regimen in storage. * After regimen is created in storage, all information will be used for suggesting doctor make prescription to patient. * The initial status of regimen is set to ACTIVE. | | | |

##### <Doctor> Update regimen



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| **USE CASE – UCA09** | | | |
| **Use Case No.** | UCA10 | **Use Case Version** | 1.0 |
| **Use Case Name** | Update regimen | | |
| **Author** | QuanTD | | |
| **Date** | 1/10/2015 | **Priority** | High |
| **Actor:**   * Doctor Manager.   **Summary:**   * This use case allows doctor manager update current regimen.   **Goal:**   * Regimen data for an illness is updated into storage.   **Triggers:**   * Doctor send update regimen command.   **Preconditions:**   * User must login system before with role “Doctor Manager”. * The regimen must be available before.   **Post Conditions:**   * **Success:** New regimen data is inserted into storage. * **Fail:** New regimen data is not updated into storage, system display error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Doctor send update regimen command | System require input fields:   * Range of patient’ age for apply: free text input, required, value is 1-100. * Detail of treatment phase:   + Number of treatment day: free text input, required, value is positive number only.  + Medicine name: free text input, required, value is available medicine in system.  + Using time: free text input, required, value is 0-23.  + Food name: free text input, optional, value is available food in system.  + Eating time: free text input, required if food name is not empty, value is 0-23  + Practice name: free text input, optional, value is available practice *in system.*  + Practice time: free text input, required if practice name is not empty, value from 0-23.  [Alternative 1] | | 2 | Doctor input all required field. |  | | 3 | Doctor send update regimen command | System required doctor confirming all inputted information  [Alternative 1]  [Exception 1] | | 4 | Doctor send submit command | System validate all information. If all information is valid, regimen information and detail of phases, medicines, foods and practices data are updated into storage.  [Alternative 2] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Doctor manager send cancel command | Display main view. Regimen data is not updated into storage. | | 2 | Doctor manager send submit command | If inputted information is invalid, system notify user need to check and input fields again. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Doctor manager send update regimen command without inputting all required fields. | System notice that user need to input all required field. | | 2 | Doctor manager send submit command | System display error message that can’t update regimen data. Updating regimen request is aborted. |   **Relationships:** N/A.  **Business Rules:**   * After regimen is updated in storage, all information will be used for suggesting doctor make prescription to patient. | | | |

##### <Doctor> Delete regimen



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| **USE CASE – UCA11** | | | |
| **Use Case No.** | UCA11 | **Use Case Version** | 1.0 |
| **Use Case Name** | Delete regimen | | |
| **Author** | QuanTD | | |
| **Date** | 24/09/2015 | **Priority** | High |
| **Actor:**   * Doctor Manager.   **Summary:**   * This use case allows doctor manager delete a regimen.   **Goal:**   * Regimen is deleted from storage.   **Triggers:**   * Doctor send delete regimen command.   **Preconditions:**   * User must login system before with role “Doctor Manager”. * The regimen must be available before.   **Post Conditions:**   * **Success:** The regimen has been deleted. * **Fail:** Display error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Doctor send delete command | System require doctor manager to confirm deletion  [Alternative 1] | | 2 | Doctor send submit command | System display main view with message that regimen has been deleted. The regimen request is deleted from storage.  [Exception 1] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Doctor send cancel command | Display main view. Regimen data is not deleted from storage. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 2 | Doctor send submit command | System display error message that can’t delete regimen data. Updating regimen request is aborted. |   **Relationships:** N/A.  **Business Rules:**   * After deletion, the regimen can’t be used to suggest doctor make prescription to patient. * The regimen can be deleted physically or logically from storage. | | | |