

## Annex A. Use Case Models

### 1.1 Use Case 1: Register as a New User

Use Case ID:	UC1		
Use Case Name:	User registration		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Doctor (Regular user)
Description:	This use case describes how to sign up for the application
Trigger:	New application use,
Preconditions:	1. Doctor has medical credentials
Normal Flow:	<ol style="list-style-type: none"> <li>1. Application displays the register/sign in page with user's name and password fields</li> <li>2. The doctor selects to register</li> <li>3. The application display the profile information page and form</li> <li>4. The doctor enters the information: user-name, first name, last name, email used for medical council correspondence, identification number, repeated password(strong pattern) , hospital, location, phone</li> <li>5. the doctor saves information</li> <li>6. the application system validates the information completeness, and against MOH and Medical Council data</li> <li>7. the application sends link to verify email, or code to phone</li> <li>8. the application displays code page while suggesting to also verify email</li> <li>9. the user verifies email, or enters code in text field</li> <li>10. the application displays the home screen</li> </ol>
Alternative Flows:	<ol style="list-style-type: none"> <li>6. the application fails to validate information and displays error reason</li> <li>7. the application goes back to edit profile screen</li> </ol>
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

## 1.2 Use Case 2:User Login

Use Case ID:	UC2		
Use Case Name:	User Login		
Created By:	Waleed Zogaan	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Doctor (Regular user)
Description:	This use case describes how to sign in for the application
Trigger:	Application use
Preconditions:	<ol style="list-style-type: none"> <li>1. Doctor already registered.</li> <li>2. System is running</li> <li>3. Internet connection is working</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. Doctor able to login.</li> <li>2. Application is showing home screen.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. Application displays the register/sign in page with user's name and password fields</li> <li>2. The doctor selects to login</li> <li>3. The application display the login page and form</li> <li>4. The doctor enters the user-name and Password.</li> <li>5. The doctor click Login button.</li> <li>6. The application system validates the information.</li> <li>7. The application displays the home screen</li> </ol>
Alternative Flows:	<p>A.F 1:</p> <ol style="list-style-type: none"> <li>6. The application fails to validate password and display "Incorrect password, Please enter your password" message.</li> <li>7. The application goes back to Register/Login page.</li> </ol> <p>A.F 2:</p> <ol style="list-style-type: none"> <li>6. The application fails to validate user-name and display</li> </ol>

	<p>“User-name was not found” message.</p> <p>7. The application goes back to Register/Login page.</p>
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 1.3 Use Case 3: Validate Medical License.

Use Case ID:	UC3		
Use Case Name:	Validate Medical License		
Created By:	Waleed Zogaan	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Administrator, MOH database, WDE
Description:	This use case describes how the application will validate Doctors credentials with MOH.
Trigger:	New user registration
Preconditions:	<ol style="list-style-type: none"> <li>1. Doctor already registered.</li> <li>2. System is running</li> <li>3. Internet connection is working</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. Doctor credentials was confirmed.</li> </ol>

	2. Application is showing home screen.
Normal Flow:	<ol style="list-style-type: none"> <li>1. User click 'Submit' button in the New User Form.</li> <li>2. The application connect to MOH database.</li> <li>3. The application Validate the New User information and Identification number with the MOH records.</li> <li>4. New user information are valid.</li> <li>5. The application send confirmation email to the user.</li> <li>6. User is activated.</li> </ol>
Alternative Flows:	<p>A.F 1:</p> <ol style="list-style-type: none"> <li>4. New user information are not valid.</li> <li>5. The application send "Validation Failed" email to the user.</li> <li>6. User is deactivated.</li> </ol>
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

#### 1.4 Use Case 4: Access the MOH Guidelines

Use Case ID:	UC4		
Use Case Name:	Browse the MOH Guidelines		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Doctor (Regular User)
Description:	This use case describes how a doctor consults the MOH guidelines in the application
Trigger:	Need to check guidelines
Preconditions:	1. The doctor is logged in.
Postconditions:	1. The MOH guidelines is displayed.
Normal Flow:	<ol style="list-style-type: none"> <li>1. From the home screen of the application the choice of access to MOH Guidelines displayed</li> <li>2. The user selects the MOH guideline</li> <li>3. The application displays a screen with collapsed hierarchy of sections and chapters of the document</li> <li>4. Based on the subject of interest the doctor expands each part of the hierarchy</li> <li>5. The desired section of pages is reached and displayed by the application</li> <li>6. From a given page the doctor can navigate and scroll through content, or collapse section again</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	

Priority:	High
Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 1.5 Use Case 5: Create discussion thread

Use Case ID:	UC5		
Use Case Name:	Discuss a general medical topic		
Created By:	Richard Kalimba	Last Updated By:	Richard Kalimba
Date Created:	03/01/2015	Date Last Updated:	03/03/2015

Actors:	Doctor
Description:	This use case describes how a doctor discusses a general topic with fellow doctors
Trigger:	Any new idea or question from doctor about the medical practice
Preconditions:	<ol style="list-style-type: none"> <li>1. The doctor has a live Internet connection.</li> <li>2. The doctor is logged in.</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. Relevant doctors are notified of new discussion</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application shows the home screen with a selection that includes option to open Discussions</li> <li>2. The application goes to Discussions Board</li> <li>3. The doctor selects from discussions board to Discuss a general topic</li> <li>4. The application displays screen with Topic Categories: Internal Medicine, Surgery, Pediatrics, Obstetrics &amp; Gynecology.</li> <li>5. The doctor selects a topic category</li> <li>6. The application shows a text field to post the discussion with option for media attachment. (Attach Media Use Case)</li> <li>7. The doctor shares case details by editing the contents of text field and optionally attaches media</li> <li>8. The doctor selects the share option</li> <li>9. The application opens the discussion board for the new topic (View Discussion Board Use Case)</li> </ol>
Alternative Flows:	
Exceptions:	Exceeds post length limit

Includes:	Attach Media
Priority:	
Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

## 1.6 Use Case 6: Search discussion

Use Case ID:	UC6		
Use Case Name:	Search discussion threads with keywords or medical specialty.		
Created By:	Iago da Silva	Last Updated By:	Iago da Silva
Date Created:	03/14/2015	Date Last Updated:	03/14/2015

Actors:	Doctor (Regular User)
Description:	This use case describes how a user searches for a discussion thread.
Trigger:	Need to learn more about medical practices, or discussion conclusions.
Preconditions:	1. Doctor is logged in the system
Postconditions:	1. A set of discussions is displayed as the search result
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application shows the home screen with a search box on top.</li> <li>2. Doctors type medical specialty or keywords and submit the search</li> <li>3. The application displays the search result.</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	
Priority:	

Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

## 1.7 Use Case 7: Access patient case studies

Use Case ID:	UC7		
Use Case Name:	Access patient case studies.		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Doctor
Description:	This use case describes how a user access a patient discussion thread.
Trigger:	New discussion notification. Updated discussion notification. Doctor needs to know more information about the treatment of a specific case.
Preconditions:	1. Doctor is logged in.
Postconditions:	1. The selected patient case is displayed with details.
Normal Flow:	1. The application shows the home screen with a patient records options. 2. The doctor selects patient records options 3. The doctor selects one of the patient records
Alternative Flows:	A.F 1: 1. The doctor searches for a patient record 2. The doctor selects one of the search result AF 2: 1. The doctor receives notification about a patient record. 2. The doctor selects the patient record in the notification 3. The patient record discussion is displayed with details.
Exceptions:	
Includes:	
Priority:	
Frequency of Use:	
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

## 1.8 Use Case 8: Archive discussions and case studies for offline access

Use Case ID:	UC8		
Use Case Name:	Archive discussions and case studies for offline access.		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Doctor
Description:	This user case describes how the doctor makes discussion available for offline use.
Trigger:	The doctor wants to use a discussion offline.
Preconditions:	<ol style="list-style-type: none"> <li>1. User is logged in the system</li> <li>2. There are available discussion threads</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. The discussion thread can be visualized offline</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The user executes Use Case Access patient case studies, or Use Case Access discussion thread</li> <li>2. The doctor selects options in the discussion</li> <li>3. The doctor selects make available offline</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	Use Case Access patient case studies Use Case Access discussion thread
Priority:	Medium
Frequency of Use:	Medium
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

## 1.9 Use Case 9: Update Experienced Doctor Privileges

Use Case ID:	UC9		
Use Case Name:	Update Experienced Doctor Privileges		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Admin
Description:	This use case describes how the application administrator updates the users with experienced doctor privileges
Trigger:	
Preconditions:	<ol style="list-style-type: none"> <li>1. the user has administrator privileges</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application home screen shows options that include manage users</li> <li>2. the admin selects the option to manage users</li> <li>3. the application displays screen with List of users as panel with two sections, and option to move back and forth users from/to privilege given section (Regular Doctors or</li> </ol>

	Experienced Doctors) 4. The admin selects user(s) to be moved either way 5. The admin selects move option 6. The application asks for confirmation of the update to move user in different privilege group 7. The admin confirm privileges changes 8. the application shows the list of users in respective privilege section
Alternative Flows:	
Exceptions:	
Includes:	
Priority:	
Frequency of Use:	
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 1.10 Use Case 10: Edit Discussion Thread.

Use Case ID:	UC10		
Use Case Name:	Edit Discussion Thread		
Created By:	Waleed Zogaan	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Doctors
Description:	This use case describes how to edit existing discussion thread.
Trigger:	The doctor wants to edit a discussion thread.
Preconditions:	<ol style="list-style-type: none"> <li>1. User has internet connection.</li> <li>2. Application is running.</li> <li>3. User is logged in.</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. Discussion thread edited successfully.</li> <li>2. Edited discussion thread is posted.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application shows the home screen with a selection that includes option to open Discussions</li> <li>2. The doctor navigates to Discussions Board</li> <li>3. The doctor selects discussion thread from discussions board.</li> <li>4. The doctor selects a discussion thread.</li> <li>5. The application shows a text field to edit the discussion with option for media attachment. (Attach Media Use Case)</li> <li>7. The doctor edit thread details by editing the contents of text field and optionally attaches media</li> <li>8. The doctor selects the post option</li> <li>9. The application post edited thread.</li> </ol>
Alternative Flows:	A.F 1: <ol style="list-style-type: none"> <li>8. The doctor selects the cancel option</li> <li>9. The application clear the text fields.</li> </ol>

Exceptions:	Exceeds post length limit
Includes:	Attach Media
Priority:	
Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 1.11 Use Case 11: Delete discussion thread

Use Case ID:	UC11		
Use Case Name:	Delete discussion thread.		
Created By:	Amol Pantvaidya	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Doctor
Description:	This use case describes how a user will delete a discussion thread.
Trigger:	The owner of the thread wants to delete the thread.
Preconditions:	<ol style="list-style-type: none"> <li>1. User already registered.</li> <li>2. Application is able to connect to the internet.</li> <li>3. The thread to be deleted exists</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. The discussion thread is successfully deleted.</li> <li>2. Application return to the discussion board.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The user navigates to the discussion board from the home page.</li> <li>2. The user selects the discussion thread to delete.</li> <li>3. The selected discussion thread is displayed along with the operations that could be performed on it.</li> <li>4. The user selects the 'Delete' option.</li> <li>5. The application now verifies if the user is the owner of the thread requested to be deleted.</li> <li>6. The application asks for a confirmation to delete.(Yes/No)</li> <li>7. User selects 'Yes'</li> <li>8. Thread is deleted.</li> <li>9. Application returns to the discussion board.</li> </ol>
Alternative Flows:	<p>A.F 1: 6. The user is not the owner of the requested thread, Application gives feedback to the user denying access to the operation. 8. Application returns to the discussion board.</p> <p>A.F 2: 7. User selects 'No'. 8. Application returns to the thread view screen.</p>
Exceptions:	

Includes:	
Priority:	High
Frequency of Use:	Often
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 3.12 Use Case 12: Edit a patient case record

Use Case ID:	UC12		
Use Case Name:	Edit patient case record		
Created By:	Amol Pantvaidya	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Doctor
Description:	This use case describes how a user can edit a patient case record..
Trigger:	The user wants to edit a patient case record..
Preconditions:	<ol style="list-style-type: none"> <li>1. User is Logged-in</li> <li>2. Application is able to connect to the internet.</li> <li>3. The requested patient case is logged.</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>3. The user is able to edit the requested patient case.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The user navigates to the patient cases section on the home page.</li> <li>2. The user is able to view all the patient cases logged by the user.</li> <li>3. The user selects the case to edit.</li> <li>4. The case details are displayed to the user in read/write mode.</li> <li>5. The user modifies data as required.</li> <li>6. The user clicks on the 'Save' button.</li> <li>7. The changes to the record are saved.</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Often
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 3.13 Use Case 13: Search a patient case record

Use Case ID:	UC13
Use Case Name:	Search a patient case record.

Created By:	Amol Pantvaidya	Last Updated By:	
Date Created:	03/14/2015	Date Last Updated:	

Actors:	Doctor
Description:	This use case describes how a user can search for a patient case record..
Trigger:	The user wants to modify/view a patient case record..
Preconditions:	<ol style="list-style-type: none"> <li>1. User is Logged-in</li> <li>2. Application is able to connect to the internet</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. The user is able to view the requested patient case.</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The user navigates to the patient cases section on the home page.</li> <li>2. The user is able to view all the patient cases logged by the user.</li> <li>3. The top right corner of the current screen provides a search bar to search/filter case records. The user types in the case details in the search box.</li> <li>4. The user selects 'Search' button.</li> <li>5. The requested case is displayed to the user.</li> </ol>
Alternative Flows:	<p>AF 1:</p> <ol style="list-style-type: none"> <li>5. If the requested case is not found in the system the user is given a feedback message- "The requested case could not be found".</li> </ol>
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Often
Business Rules:	
Special Requirements:	
Assumptions:	The user remembers or has access to certain case details and certain keywords that could be used to search a record.
Notes and Issues:	

### 3.14 Use Case 14: Post a comment to a discussion thread

Use Case ID:	UC14		
Use Case Name:	Post a comment to a discussion thread		
Created By:	Richard Kalimba	Last Updated By:	Richard Kalimba
Date Created:	03/14/2015	Date Last Updated:	03/14/2015

Actors:	Doctor
Description:	This use case describes how the doctor adds a new post/comment to discussion thread.
Trigger:	The doctor wants to add something on the discussion
Preconditions:	<p>The doctor is signed in the system/application</p> <p>The doctor's device is connected to the Internet, live.</p>
Postconditions:	
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application shows the home screen with a selection that includes option to open Discussions</li> <li>2. The application goes to Discussions Board</li> </ol>

	<ol style="list-style-type: none"> <li>3. The doctor selects from discussions board to Discuss a Case or a General Topic</li> <li>4. The application displays screen with Topic Categories: Internal Medicine, Surgery, Pediatrics, Obstetrics &amp; Gynecology.</li> <li>5. The doctor selects a topic category</li> <li>6. The application lists all the discussions related to the topic</li> <li>7. The doctor selects to a discussion</li> <li>8. The application displays all the posts/comments to the discussion, with option to add a new comment/post</li> <li>9. The doctor selects to add a new comment</li> <li>10. The application displays an empty text field with option to attach media</li> <li>11. The doctor adds text and optionally attaches media</li> <li>12. The doctor posts the new comment</li> <li>13. The application displays the updated list of posts to the discussion.</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

### 3.15 Use Case 15: Delete a patient case record

Use Case ID:	UC15		
Use Case Name:	Delete a patient case record		
Created By:	Richard Kalimba	Last Updated By:	Richard Kalimba
Date Created:	03/14/2015	Date Last Updated:	03/14/2015

Actors:	System
Description:	This use case describes how the system deletes a patient's case discussion record
Trigger:	When it has been a month since the last update to the discussion
Preconditions:	
Postconditions:	The patient case discussions are deleted from system.
Normal Flow:	<ol style="list-style-type: none"> <li>1. At the end of a week, the system checks for any patient case discussion whose last update is at least a month old.</li> <li>2. The system deletes all patient case discussions whose last update is at least a month old.</li> </ol>
Alternative Flows:	
Exceptions:	
Includes:	
Priority:	High
Frequency of Use:	Weekly
Business Rules:	

Special Requirements:	
Assumptions:	After a month without updates, patient case discussions are considered obsolete
Notes and Issues:	

### 3.16 Use Case 16: Create Patient case discussion record

Use Case ID:	UC16		
Use Case Name:	Create discussion (Patient record)		
Created By:	Richard Kalimba	Last Updated By:	Iago da Silva
Date Created:	03/01/2015	Date Last Updated:	03/14/2015

Actors:	Doctor
Description:	This use case describes how a doctor creates a patient record discussion.
Trigger:	A question when treating a patient
Preconditions:	<ol style="list-style-type: none"> <li>1. The doctor has a live internet connection</li> <li>2. The doctor is logged in the system</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. Relevant Doctors receive a notification of a new discussion</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. The application shows the home screen with a selection that includes option to open Discussions</li> <li>2. The application goes to Discussions Board</li> <li>3. The doctor selects from discussions board to Discuss a Case</li> <li>4. The application displays screen with Topic Categories: Internal Medicine, Surgery, Pediatrics, Obstetrics &amp; Gynecology.</li> <li>5. The doctor selects a topic category</li> <li>6. The application shows a selectable list of doctors familiar with the topic, and text field to post the discussion with option for media attachment. (Attach Media Use Case)</li> <li>7. The doctor shares case details by editing the contents of text field and optionally attaches media</li> <li>8. The doctor selects the share option</li> <li>9. The application opens the discussion board for the new topic (View Discussion Board Use Case)</li> </ol>
Alternative Flows:	
Exceptions:	Exceeds post length limit
Includes:	Attach Media
Priority:	
Frequency of Use:	Many times daily
Business Rules:	
Special Requirements:	
Assumptions:	
Notes and Issues:	