**SENG 350**

Arfaz Hussain / V00984826

Project Milestone 1: UML Submissions

[**Project Link**](https://github.com/SENG-350-2024-fall/Team-13)

**Use Cases**

**Actor: Patient**

**Use Case 1:** [Register Account](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-1-register-account)  
**Use Case 2:** [Log In / Out](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-2-log-in--out)  
**Use Case 3:** [Update Health Profile](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-3-update-health-profile)  
**Use Case 4:** [Find Nearby Hospitals](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-4-find-nearby-hospitals)  
**Use Case 5:** [View Hospital Wait Times](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-5-view-hospital-wait-times)  
**Use Case 6:** [Call Emergency Hotline](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-6-call-emergency-hotline)  
**Use Case 7:** [Register for Virtual Triage](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-7-register-for-virtual-triage)  
**Use Case 8:** [View Triage Results](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-8-view-triage-results)  
**Use Case 9:** [View Waitlist Position](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-9-view-waitlist-position)  
**Use Case 10:** [Leave Waitlist](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-10-leave-waitlist)  
**Use Case 11:** [View Medical History](https://github.com/SENG-350-2024-fall/Team-13/blob/main/Use%20Case%20Tables/PatientUseCaseTables.md#use-case-11-view-medical-history)

A diagram of a health care system

Description automatically generated**Patient Diagram**

**PlantUML Script**

@startuml

left to right direction

actor "Patient" as patient

rectangle "Mister ED Healthcare System" {

rectangle "Account Management" {

usecase "Register Account" as UC1

usecase "Log In / Out" as UC2

}

rectangle "Health Profile" {

usecase "Update Health Profile" as UC3

usecase "View Medical History" as UC11

}

rectangle "Hospital Services" {

usecase "Find Nearby Hospitals" as UC4

usecase "View Hospital Wait Times" as UC5

usecase "View Waitlist Position" as UC9

usecase "Leave Waitlist" as UC10

}

usecase "Call Emergency Hotline" as UC6

rectangle "Virtual Triage" {

usecase "Register for Virtual Triage" as UC7

usecase "View Triage Results" as UC8

}

}

patient --> UC1

patient --> UC2

patient --> UC4

patient --> UC6

patient --> UC7

patient --> UC9

UC1 ..> UC3 : includes

UC2 ..> UC11 : includes

UC2 ..> UC3 : includes

UC7 ..> UC8 : includes

UC4 <|-- UC5 : extends

UC9 <|-- UC10 : extends

@enduml

**Use Case Tables**

**Use Case 1: Register Account**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 1: Register Account |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows a patient to create a new account in the Mister ED Healthcare System. The account is required to access other services, such as health profile management and hospital services. |
| **Actors** | **Patient**: The individual seeking to create an account and access the healthcare services. |
| **Assumptions** | - The patient has access to a mobile device or computer with an internet connection. - The patient does not already have a registered Mister ED account. |
| **Steps** | - The patient accesses the Mister ED homepage and clicks "Register Account". - The patient enters required information (e.g., username, password, email). - The patient optionally provides initial medical history. - The patient confirms registration by clicking "Create Account". - The patient is automatically logged into their new account and redirected to the homepage. |
| **Variations (Optional)** | - If the chosen username is already in use, the system prompts the patient to choose a different one. |
| **Non-Functional (Optional)** | - The system must securely store all sensitive information, including personal and medical data. |
| **Issues** | - Secure storage and encryption of sensitive personal data. - Ensuring that password strength is adequate for account security. |

**Use Case 2: Log In / Out**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 2: Log In / Out |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows a patient to log into their Mister ED account to access services or log out to end their session. |
| **Actors** | **Patient**: The individual logging into or out of their account. |
| **Assumptions** | - The patient has an existing Mister ED account. |
| **Steps** | - The patient clicks "Log In" on the homepage. - The patient enters their username and password. - Upon successful login, the system redirects the patient to their homepage. - To log out, the patient clicks their profile in the top-right corner and selects "Log Out". |
| **Variations (Optional)** | - If the login credentials are incorrect, the system displays an error message and prompts the patient to retry. |
| **Non-Functional (Optional)** | - The system must securely handle passwords and sessions, preventing unauthorized access. |
| **Issues** | - Ensuring secure storage and encryption of login credentials to protect against unauthorized access. |

**Use Case 3: Update Health Profile**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 3: Update Health Profile |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to update their health profile, adding new medical conditions, allergies, or any other relevant health data. |
| **Actors** | **Patient**: The individual updating their health profile. |
| **Assumptions** | - The patient is logged into their Mister ED account. |
| **Steps** | - The patient navigates to the health profile section. - The patient updates their health information (e.g., new allergies, medications). - The patient saves the updated information, and the system confirms the changes. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must ensure that health data is stored securely and updated in real-time. |
| **Issues** | - Ensuring that the updated data is accurate and securely stored. |

**Use Case 4: Find Nearby Hospitals**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 4: Find Nearby Hospitals |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to locate nearby hospitals using GPS and a map interface. |
| **Actors** | **Patient**: The individual searching for nearby hospitals. |
| **Assumptions** | - The patient’s device has GPS enabled, and they have internet access. |
| **Steps** | - The patient clicks "Find Nearby Hospitals" on the homepage. - The system accesses the patient’s location and displays a map with nearby hospitals. - The patient can click on a hospital to get more information, such as contact details and services. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must display an accurate and up-to-date map based on the patient’s location. |
| **Issues** | - Ensuring GPS accuracy and reliable mapping service. |

**Use Case 5: View Hospital Wait Times**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 5: View Hospital Wait Times |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to view estimated wait times at hospitals nearby, which helps them decide where to seek medical treatment. |
| **Actors** | **Patient**: The individual checking hospital wait times. |
| **Assumptions** | - The patient has already found nearby hospitals through the system. |
| **Steps** | - The patient selects a hospital on the map. - The system displays the estimated wait times for that hospital. - The patient can compare wait times and choose the most convenient hospital. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must regularly update wait times to reflect the current status at the hospital. |
| **Issues** | - Ensuring that hospital wait times are updated in real-time to provide accurate information. |

**Use Case 6: Call Emergency Hotline**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 6: Call Emergency Hotline |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows a patient to call an emergency hotline for urgent medical assistance. The system connects the patient with an emergency service or a healthcare professional. |
| **Actors** | **Patient**: The individual seeking emergency medical assistance. |
| **Assumptions** | - The patient is logged into their Mister ED account and has access to a phone or internet service. |
| **Steps** | - The patient clicks "Call Emergency Hotline" on the homepage. - The system connects the patient to an emergency service for immediate medical assistance. - The patient communicates their emergency to the service, and assistance is dispatched if necessary. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The call must be secure and private to protect patient confidentiality. |
| **Issues** | - Ensuring the quality and reliability of the emergency communication system. |

**Use Case 7: Register for Virtual Triage**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 7: Register for Virtual Triage |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to register for virtual triage, providing initial symptom information and receiving advice or next steps based on the assessment. |
| **Actors** | **Patient**: The individual seeking medical evaluation through virtual triage. |
| **Assumptions** | - The patient is logged into their account and has internet access. |
| **Steps** | - The patient clicks "Register for Virtual Triage" and enters their symptoms. - The system processes the symptoms and provides triage results, including possible next steps for treatment. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must provide a quick and accurate evaluation of the patient's symptoms. |
| **Issues** | - Ensuring that the virtual triage system provides accurate and timely medical advice. |

**Use Case 8: View Triage Results**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 8: View Triage Results |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to view the results of their virtual triage session, which may include recommended next steps or suggested medical treatments. |
| **Actors** | **Patient**: The individual reviewing the results of their virtual triage. |
| **Assumptions** | - The patient has already completed the virtual triage process and is logged into their account. |
| **Steps** | - The patient receives a notification that their triage results are available. - The patient clicks "View Triage Results" and reviews the system's recommendations. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must ensure that results are presented clearly and securely to the patient. |
| **Issues** | - Ensuring the accuracy of triage results and safeguarding patient privacy. |

**Use Case 9: View Waitlist Position**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 9: View Waitlist Position |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to view their position on a hospital or clinic waitlist. |
| **Actors** | **Patient**: The individual checking their position on the waitlist. |
| **Assumptions** | - The patient has previously joined a waitlist through the Mister ED system. |
| **Steps** | - The patient clicks "View Waitlist Position" on the homepage. - The system displays the patient’s current position on the waitlist for a hospital or clinic. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must display real-time information about the patient’s waitlist position. |
| **Issues** | - Ensuring real-time synchronization with the hospital or clinic's waitlist data. |

**Use Case 10: Leave Waitlist**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 10: Leave Waitlist |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to leave a hospital or clinic waitlist if they no longer wish to remain in line for services. |
| **Actors** | **Patient**: The individual removing themselves from a hospital or clinic waitlist. |
| **Assumptions** | - The patient has previously joined a waitlist. |
| **Steps** | - The patient clicks "Leave Waitlist" on the homepage. - The system confirms the patient’s removal from the waitlist. |
| **Variations (Optional)** | - N/A |
| **Non-Functional (Optional)** | - The system must immediately update the waitlist to reflect the patient’s removal. |
| **Issues** | - Ensuring the patient is promptly removed from the waitlist and notifications are sent to the hospital or clinic. |

**Use Case 11: View Medical History**

| **Field** | **Description** |
| --- | --- |
| **Use Case Identifier and Reference Number** | Use Case 11: View Medical History |
| **Modification History** | Created 2024/09/29 by Arfaz Hussain |
| **Description** | This use case allows the patient to view their past medical history, including previous treatments, diagnoses, and procedures. |
| **Actors** | **Patient**: The individual reviewing their medical history. |
| **Assumptions** | - The patient is logged into their account and has previously visited medical providers through the Mister ED system. |
| **Steps** | - The patient navigates to the "Health Profile" section. - The patient clicks "View Medical History" to see a detailed log of past treatments, diagnoses, and medical visits. - The patient can filter or search specific records if needed. |
| **Variations (Optional)** | - The patient may request to download a copy of their medical history. |
| **Non-Functional (Optional)** | - The system must securely store and display medical records, ensuring patient privacy and data protection. |
| **Issues** | - Ensuring the accuracy of the displayed medical history and compliance with data privacy regulations. |