Sports Concussion Assessment System Project

# Phase I Part 1

### **Actors**

### **Athletes**

Individuals actively participate in sports. They are the primary users of the Sports Concussion Assessment Application, seeking to monitor and report on their health conditions and symptoms related to concussions and other sports injuries.

### **Sport Medical Practitioners**

Licensed medical professionals with expertise in sports medicine who utilize the Sport Concussion Assessment Application to access, review, and interpret athletes' health data to ensure their well-being and safety.

**Major Use Cases**

* Create Account
* Validate User
* Create Evaluation
* Access Report
* Message User
* Select Sport Medical Practitioner
* “Am I at Risk”
* Get Messages
* Validate User

# Phase I Part 2

*Use Astah to draw a use case diagram. Use proper UML notation. Take a clear screenshot of your completed diagram and paste it on this page.*

A diagram of a person's process

Description automatically generated

# Phase II Part 1

*Include your use case descriptions on this page. You may add pages if necessary.*

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| Actor | Use Case Name | Use Case Description |
| Athletes and SMP | Create Account | Athletes and Sport Medical Practitioner (SMP) can create their own accounts by providing personal and sport-related information. |
| Athletes | Create Evaluation | Input a symptom evaluation based on 22 factors after each game.  Enter pain levels on a scale from 0 (no pain) to 6 (severe pain). |
| Athletes and SMP | Access Report | View Symptom Severity Score  View Overall Severity Rating  View Symptom Summary and Total Number of Symptoms  View “Risky Condition Indicator” |
| Athletes | Am I at Risk? | Check risk level through the "Am I at Risk?" button and view the corresponding color-coded risk image. |
| Athletes and SMP | Message User | Send a Message from Athlete to SMP or vice versa |
| Athletes and SMP | Validate User | Check if user has access to the requested Action |
| Athletes | Select Sport Medical Practitioner | A way for athletes to navigate and select their own SMP |
| Athletes and SMP | Get Messages | Get all Messages for a specific User |

# Phase II Part 2

*List the potential objects in the provided space. Use the template provided to create a CRC diagram for each object. You may add pages if necessary.*

## Potential Object

* AppUI
* SportsMedicalPractitioner
* Athlete
* Evaluation
* UserAccount
* Message
* EvaluationController
* MessageController
* UserController

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| **Class: AppUI** | |
| **Responsibilities**  Display main application interface options.  Trigger the process for account creation.  Invoke the risk-checking process.  Start the evaluation creation process.  Request and display a Symptom Summary.  Initiate user messaging and retrieve and display messages.  Allow athletes to select a Sports Medical Practitioner | **Collaborators**  EvaluationController  MessageController  UserController |

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| **Class: SportsMedicalPractitioner** | |
| **Responsibilities**  Provide medical advice to Athletes.  Review athletes' reports and Risky Condition Indicator. | **Collaborators**  UserController |

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| **Class: Athlete** | |
| **Responsibilities**  Provide username and password.  Create evaluations to check for Symptoms.  Check if they are at a Health Risk.  Get Messages.  Send a Message to their Sports Medical Practitioner. | **Collaborators**  SportsMedicalPractitioner  UserController |

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| **Class: Evaluation** | |
| **Responsibilities**  Hold details of symptoms and pain levels.  Hold timestamp to identify evaluation. | **Collaborators** |

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| **Class: Message** | |
| **Responsibilities**  Store sender, receiver, and content details.  Enable message sending and retrieval. | **Collaborators** |

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| **Class: UserAccount** | |
| **Responsibilities**  Hold and manage user details like:   * Username. * Password. * User Roles. * Login status. | **Collaborators** |

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| **Class: EvaluationController** | |
| **Responsibilities**  Manage Evaluations per User.  Calculate patient’s current status compared to previous status. | **Collaborators**  Evaluation  UserAccount |

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| **Class: UserController** | |
| **Responsibilities**  Manage users and their connections to each other.  Authenticate Users.  Create Users.  Retrieve lists of users and their respective types | **Collaborators**  Athlete  SportMedicalPractitioner  UserAccount |

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| **Class: MessageController** | |
| **Responsibilities**  Keep track of messages sent in the platform.  Retrieve a user’s messages. | **Collaborators**  Message  UserAccount |

# Phase II Part 3

*Use Astah to draw the class diagram. Use proper UML notation. Take a clear screenshot of your completed diagram and paste it on this page.*

A screenshot of a computer

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