Interface Control Document

Project Topic: Health Monitoring System

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Revision 1.2

CMSC 495 6380

22 September 2020

Group 4

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Revision Number | Date | Description | Name |
| 1.0 | 9/16/2020 | First draft created by Blake | Blake |
| 1.1 | 9/19/2020 | UPDATE: Implemented changes discussed during weekly Zoom meeting. | Brandon |
| 1.2 | 9/19/2020 | UPDATE: Format, descriptions to reflect subsystems, table values, table of contents to add each scenario. | Audrey |

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# Interface Control Document

The Interface Control Document (ICD) is a document that lists all data and their types that are passed among the subsystems or between a subsystem and an outside system. The purpose of this document is to have the interfaces well defined so that sub-systems can be coded in parallel by different software engineers.

# ICD for the Health Monitoring sub-systems

**Scenario 1**: Create Profile: Successful

Data between User – Outside System and Login / Database / Display / Chart / Calculation Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login subsystem | signup | JButton | n/a | n/a |
| Login subsystem | User – Outside System | signup\_panel | JPanel | n/a | n/a |
| User – Outside System | Database subsystem | biometric\_array  username\_password\_array | Array  Array | String  String | n/a  n/a |
| Database subsystem | User – Outside System | mainUI | JFrame | n/a | n/a |
| Database subsystem | Chart | biometric\_array | Array | String | String |
| Chart subsystem | Display subsystem | chart | JFreeChart | n/a | n/a |
| Database subsystem | Calculation | biometric\_array | Array | String | String |
| Calculation subsystem | Display | goal\_analysis | String | String | n/a |

**Scenario 2**: Create Profile : Unsuccessful

Data between User – Outside System and Login / Database Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login subsystem | signup | JButton | n/a | n/a |
| Login subsystem | User – Outside System | signup\_panel | JPanel | n/a | n/a |
| User – Outside System | Database subsystem | biometric\_array  username\_password\_array | Array  Array | String  String | n/a  n/a |
| Database subsystem | User – Outside System | Alert Dialog | JOptionPane | n/a | n/a |

**Scenario 3**: Log On : Successful

Data between User – Outside Subsystem and Login / Database / Display / Chart / Calculation Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login subsystem | Authentication | Username – String  Password – String | > 1  [A-Za-z0-9],  special characters | Null / null |
| Login subsystem | Database Subsystem | username\_password\_array | Array | String | n/a |
| Database Subsystem | User / Outside System | mainUI | JFrame | n/a | n/a |
| Database Subsystem | mainUI | biometric\_array | Array | String | String |
| Database subsystem | Chart subsystem | biometric\_array | Array | String | String |
| Chart subsystem | Display subsystem | chart | JFreeChart | n/a | n/a |
| Database subsystem | Calculation subsystem | biometric\_array | Array | String | String |
| Calculation subsystem | Display subsystem | goal\_analysis | String | String | n/a |

**Scenario 4**: Log On : Unsuccessful

Data between User – Outside System Database / Login Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login Subsystem | Authentication | Username – String  Password – String | > 1,  [A-Za-z0-9], special characters | Null / null |
| Login Subsystem | Database Subsystem | username\_password\_array | Array | String | n/a |
| Database Subsystem | User / Outside System | Alert Dialog | JOptionPane | n/a | n/a |

**Scenario 5**: Successful Log On : Delete User

Data between User – Outside Subsystem and Login / Display / Database / Chart / Calculation Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login subsystem | Authentication | Username – String  Password – String | > 1,  [A-Za-z0-9],  special characters | Null / null |
| Login subsystem | Database Subsystem | username\_password\_array | Array | String | n/a |
| Database Subsystem | User / Outside System | mainUI | JFrame | n/a | n/a |
| Database subsystem | Chart subsystem | biometric\_array | Array | String | String |
| Chart subsystem | Display subsystem | chart | JFreeChart | n/a | n/a |
| Database subsystem | Calculation subsystem | biometric\_array | Array | String | String |
| Calculation subsystem | Display subsystem | goal\_analysis | String | String | n/a |
| Database Subsystem | mainUI | biometric\_array | Array | String | String |
| User / Outside System | mainUI | delete\_user | JMenuBar | n/a | n/a |
| mainUI | User / Outside System | confirmation\_option\_pane | JOptionPane | True / False | n/a |
| mainUI | Database subsystem | delete\_user | username | String | n/a |

**Scenario 6**: Successful Log On : Log Off

Data between User – Outside Subsystem and Login / Display / Database / Chart / Calculation Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login Subsystem | Authentication | Username – String  Password – String | > 1,  [A-Za-z0-9], special characters | Null / null |
| Login Subsystem | Database Subsystem | username\_password\_array | Array | String | n/a |
| Database Subsystem | User / Outside System | mainUI | JFrame | n/a | n/a |
| Database Subsystem | Chart Subsystem | biometric\_array | Array | String | String |
| Chart Subsystem | Display Subsystem | chart | JFreeChart | n/a | n/a |
| Database Subsystem | Calculation Subsystem | biometric\_array | Array | String | String |
| Calculation Subsystem | Display Subsystem | goal\_analysis | String | String | n/a |
| Database Subsystem | mainUI | biometric\_array | Array | String | String |
| User / Outside System | mainUI | logoff | JMenuBar | n/a | n/a |

**Scenario 7**: Successful Log On : Update GOAL

Data between User – Outside Subsystem and Login / Display / Database / Chart / Calculation Subsystems:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| From | To | Name | Type | Value Range | Default Value |
| User – Outside System | Login Subsystem | Authentication | Username – String  Password – String | > 1,  [A-Za-z0-9], special characters | Null / null |
| Login Subsystem | Database Subsystem | username\_password\_array | Array | String | n/a |
| Database Subsystem | User / Outside System | mainUI | JFrame | n/a | n/a |
| Database Subsystem | Chart Subsystem | biometric\_array | Array | String | String |
| Chart Subsystem | Display Subsystem | chart | JFreeChart | n/a | n/a |
| Database Subsystem | Calculation Subsystem | biometric\_array | Array | String | String |
| Calculation Subsystem | Display Subsystem | goal\_analysis | String | String | n/a |
| Database Subsystem | mainUI | biometric\_array | Array | String | String |
| User / Outside System | mainUI | biometric\_array | Array | String | String |
| mainUI | Database Subsystem | biometric\_array | Array | String | String |