# CSC 375 – Introduction to Systems Analysis

# Use Cases Document

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| **Project Title** | Reporting Pipeline Modernization |
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| **Group #** | 18 |

## Use Cases:

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| **Name** | Create a new data submission (with validation) |
| **Goal/Description** | To submit data to a data collection point on the platform |
| **Participating Actors** | Financial analysts and accountants, Healthcare Administrators |
| **Triggers** | The user accesses a data collection point through a web link. |
| **Pre-Condition** | The user is a part of the Admin's team and has access to the data collection point's web link. |
| **Main Flow** | 1. The user accesses the *submission system* through the web link provided by the Admin.<br>2. The user is prompted to login with their Health Authority Single Sign-On (SSO) system.<br>3. The *submission system* will present the user with a structured form consisting of tables and number fields representing the data being collected.<br>4. The user fills out the required tables with their data.<br>5. The user fills out an acknowledgement section confirming their data is correct.<br>6. The user clicks on the **"Submit data"** button.<br>7. The *submission system* will run validation rules defined by the Admin and present the user with the results of the validation.<br>8. The *submission system* will indicate that the submission has gone through, and provides them with an ID they can provide to the Admin.<br>9. The user exits the *submission system*. |
| **Post-Condition** | ● The submission would be entered into the system<br>● The user will receive a notification email to their work email with the submission's ID |

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| | ● The user will be provided with a tracking ID for their submission |
| **Alternate Flows** | 7A1: The validation returns with errors, this happens when one entered data violates the pre-determined validation rules. This validation also applies when required data points are empty.<br>1. The user is presented with the errors and must correct them.<br>2. The user will enter the correct data in compliance with validation rules.<br>3. The user clicks on the **"Submit data"** button.<br>4. This flow repeats if there are still validation errors, if there are none the use case continues |
| **Exceptions** | ● The user does not have access to the data collection point. The user would need to contact that data collection point's Admin for further permission grant, please refer to **"Authentication for Admin and invite their team "** use case. |
| **Qualities** | ● All validations and submission activities must take less than 3 seconds to complete. |

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| **Name** | Create a new data collection point (data submissions go into this one) |
| **Goal/Description** | Admin create a new data collection point under their team and create a link for their team to access and submit data |
| **Participating Actors** | Admin, Submission System(includes authentication, form builder, and link generation services) |
| **Triggers** | The Admin selects **"Create New Data Collection Point"** from their dashboard to set up a new data intake channel. |
| **Pre-Condition** | 1. The Admin has successfully logged in through the Health Authority Single Sign-On (SSO) system.<br>2. The Admin's team has been created and includes at least one authorized member.<br>3. The system's data collection module is online and responsive.<br>4. The Admin has **"Create Collection Point"** permissions enabled.<br>5. No duplicate collection point with the same name exists under the Admin's team. |
| **Main Flow** | 1. The Admin navigates to the team dashboard.<br>2. The Admin clicks **"Create New Collection Point"**.<br>3. The system prompts for metadata such as collection name, description, and submission deadline.<br>4. The Admin enters all required details.<br>5. The system generates a unique data collection link and associates it with the Admin's team.<br>6. The Admin reviews and confirms the setup. |

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| | 7. The system saves the collection point and displays the access link. |
| **Post-Condition** | ● A new data collection point is created and visible on the Admin dashboard.<br>● A submission link is generated for authorized users. |
| **Alternate Flows** | 3A1: The Admin leaves required fields blank.<br><br>1. The system displays missing-field warnings.<br>2. The Admin completes missing fields and continues. |
| **Exceptions** | System downtime prevents creation — the Admin is notified to retry later. |
| **Qualities** | ● Creation must complete in less than 5 seconds.<br>● Generated links must be unique and secure. |

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| **Name** | Send submitted data to Data Warehouse |
| **Goal/Description** | Once all data is reviewed, the Admin can send all data to the data warehouse through an import button. |
| **Participating Actors** | Admin, Submission System, Data Warehouse |
| **Triggers** | The Admin decides that all data has been reviewed and clicks the **"Send to Data Warehouse"** button. |
| **Pre-Condition** | 1. All submissions for that collection point have been reviewed and approved.<br>2. The Admin is logged in and has permission to send data.<br>3. The data warehouse service is available and connected. |
| **Main Flow** | 1. The Admin opens the collection dashboard and selects a completed data collection.<br>2. The system checks if all submissions are reviewed.<br>3. The system enables the **"Send to Data Warehouse"** button.<br>4. The Admin clicks the button to start the transfer.<br>5. The system collects all approved data and converts it into a format that the warehouse can accept.<br>6. The data is sent securely to the warehouse through an API connection.<br>7. The warehouse system confirms that it received the data.<br>8. The system updates the collection status to **"Archived"**.<br>9. The Admin sees a message confirming that the data has been successfully sent. |

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| **Post-Condition** | ● All reviewed data is now stored in the data warehouse.<br>● The collection point is marked as **“Archived”**.<br>● A confirmation message or email is sent to the Admin. |
| **Alternate Flows** | 1. If the warehouse connection fails, the system shows an error message and allows the Admin to retry later.<br>2. If any data doesn’t meet the required format, the system notifies the Admin and stops the transfer until the issue is fixed. |
| **Exceptions** | ● The Admin doesn’t have the required permission.<br>● The warehouse API is temporarily unavailable. |
| **Qualities** | ● Data transfer should finish within a few seconds for small datasets.<br>● All communication must be encrypted and logged for security purposes. |

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| **Name** | Authentication for Admin and create their team |
| **Goal/Description** | Admin logs in and send invitations to their team members |
| **Participating Actors** | Admin |
| **Triggers** | The Admin clicks **“Sign In”** from the platform or selects **“Create New Team”** from the dashboard. |
| **Pre-Condition** | 1. Admin has a valid Health Authority Single Sign-On (SSO) account.<br>2. The submission system is online and connected to the SSO provider.<br>3. The target team name does not already exist.<br>4. The target team name does not violate any guidelines. |

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| **Main Flow** | 1. The Admin navigates to the platform landing page and clicks **"Sign In".**<br>2. The system redirects to Health Authority SSO, and the Admin completes authentication.<br>3. The system validates the token, updates the Admin's profile, and displays the dashboard.<br>4. The Admin selects **"Create New Team"** and enters the Team Name, Description, and Default Roles.<br>5. The system creates the Team, assigns the Admin as Owner, and sets up default permissions.<br>6. The Admin chooses **"Invite Members"** and enters email addresses with assigned roles.<br>7. The system validates inputs and sends invitation links.<br>8. The Invitees click the links, authenticate via SSO, and are added to the Team with assigned roles.<br>9. The system updates the Team Overview and Members list to reflect accepted users. |
| **Post-Condition** | ● A new Team is successfully created with the Admin as Owner and default roles assigned.<br>● The Admin's SSO session remains active for future authenticated actions. |
| **Alternate Flows** | 6A16A1: Duplicate Team Name<br>This alternate flow applies if the Admin tries to create a Team with a name that already exists.<br><br>1. The Admin enters a Team Name that already exists under the same organization.<br>2. The System displays a message requesting a unique Team Name.<br>3. The Admin enters a new name.<br>4. The use case continues from Step 5. |
| **Exceptions** | ● If the SSO service is unavailable, the system notifies the Admin. |
| **Qualities** | ● All authentication tokens and invitations must be encrypted and time-limited (e.g., expire within 72 hours).<br>● Every team creation and member invitation event should be logged with timestamps and user IDs. |

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| **Name** | Generate and Download Reports |
| **Goal/Description** | The Admin creates and downloads final reports that summarize all approved data for a specific time or collection point. These reports help with record keeping and sharing results. |
| **Participating Actors** | Admin, System |
| **Triggers** | Admin clicks **"Generate Report"** |
| **Pre-Condition** | 1. All submissions in the collection point have been reviewed and approved.<br>2. The system has access to the approved data. |
| **Main Flow** | 1. Admin selects the date range or collection point.<br>2. The system compiles approved data.<br>3. The system generates a downloadable CSV or PDF.<br>4. Admin downloads or emails the report. |
| **Post-Condition** | ● The report file is saved in the system for future viewing or download.<br>● The Admin has a local copy of the report for sharing or record keeping. |
| **Alternate Flow** | If the Admin chooses to email the report instead of downloading it, the system sends the report as an attachment and shows a confirmation message. |
| **Exceptions** | If report generation fails, the system shows<br>**"Report could not be created. Please try again later."** |
| **Qualities** | 1. The report should be generated within **5 seconds** for normal data sizes.<br>2. The file name should include the **collection name** and **date** for easy tracking.<br>3. All generated reports must be stored securely and only accessible by authorized admins. |