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| **Use Case Name:** | Read offline weather station | |
| **Scenario:** | Read list of offline weather station | |
| **Triggering Event:** | Status check | |
| **Brief Description:** | When the technician is required to see if any of the weather stations is offline, he must do a status check of the weather stations to acquire a list of offline weather stations. | |
| **Actors:** | Technician | |
| **Related Use Cases:** | Alert technicians | |
| **Stakeholders:** | Data Quality team: to check the upload and download of the data of the weather stations  Operations and Maintenance department: to apply maintenance for the weather stations to be operational again | |
| **Preconditions:** | Weather station must exist  Alert System must be functional | |
| **Post Conditions:** | Alert System warns technician of down or non-functional weather stations | |
| **Flow of Activities:** | Actor | System |
| 1. The technician goes to the application and enters his login information 2. He navigates to the weather stations status page 3. The Technician analyzes the statuses 4. The Technician lists down the weather station statuses | * 1. System asks for authentication   2.1 Displays the status information |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Service Report Handling | |
| **Scenario:** | Technician want to use the operation on the files of service report | |
| **Triggering Event:** | New Report, Update Report, Search Report, Delete Report | |
| **Brief Description:** | The Technician is the one who has access to the service report handling process and it contains the following operations on the files; Create, Read, Update, Delete | |
| **Actors:** | Technician | |
| **Related Use Cases:** | Weather Station Entry Handling | |
| **Stakeholders:** | Operations and maintenance department: to be able to analyze the information of the weather stations for repair or maintenance | |
| **Preconditions:** | Technician must exist.  Database must be up and present.  Weather stations must exist. | |
| **Post Conditions:** | Service report must be created.  Database must receive the service report. | |
| **Flow of Activities:** | Actor | System |
| 1. Technician accesses the service report handling process 2. Picks the following: Create, Read, Update, Delete   For Create:   1. Technician must create a new service report 2. Technician enters the required data for it to be processed. 3. Technician verifies if data is correct. 4. Technician saves the service report file 5. Service report is sent and saved in the database   For Read:   1. Technician enters keywords to search for specific weather station. 2. Technician analyzes the list of the queried service reports. 3. Technician selects the desired service report.   For Update:   1. Technician locates the existing service report to be updated through search 2. Technician changes the information that needs to be updated. 3. Technician saves the report   For Delete:   1. Technician selects the desired service report to be deleted. 2. Technician confirms and validates if the selected service report is to be deleted | 3.1 Display required fields for service report  4.1 Prompts a message that asks if input data is correct.  6.1 Saves file   * 1. Commits if saved   3.1 Searches the database for the corresponding keywords  5.1 Displays the service report   * 1. Locate the report file   4.1 System displays the service report with fields  5.1 Commits the updated service report.   * 1. Displays service report   4.1 Prompts message asking if he is sure he wants to delete the service report. |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Alert Technician | |
| **Scenario:** | Confirm and record the alert | |
| **Triggering Event:** | Broken weather station | |
| **Brief Description:** | The Technician is alerted by the alert system via notifications through SMS or application. | |
| **Actors:** | Alert System  Technician | |
| **Related Use Cases:** | Read offline weather stations | |
| **Stakeholders:** | Operations and Maintenance department: to be able to repair the broken weather station. | |
| **Preconditions:** | Weather station must exist.  Alert of the alert system must be true positive. | |
| **Post Conditions:** | Technician must validate that alert has been received.  Repair must be done to the weather station. | |
| **Flow of Activities:** | Actor | System |
| 1. Alert System constantly checks the condition of the weather stations. 2. Alert System sends a notification to the Technician if broken weather station. 3. Technician receives the notification and validates the alert. 4. Technician contacts maintenance department for the repair of the weather station. | * 1. Scans weather stations for errors.   2. Send notification via SMS or app   3. Prompts a validation form to confirm if notification received |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Present error of weather machine | |
| **Scenario:** | Error code is recorded and presented. | |
| **Triggering Event:** | Error occurred from the weather machine; ex. Connection lost or malfunction | |
| **Brief Description:** | Error code is stated and presented for easier reference for the solution | |
| **Actors:** | Technician  Alert System  Weather Station | |
| **Related Use Cases:** | Alert Technician | |
| **Stakeholders:** | Operations and Maintenance Department: to determine what went wrong in the weather machine | |
| **Preconditions:** | Error must occur  Error code is within the ruling of the error codes | |
| **Post Conditions:** | Error code is presented | |
| **Flow of Activities:** | Actor | System |
| 1. Technician checks for any error from weather station 2. Weather station malfunctions | * 1. Error code is presented to the Technician for easier reference |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Weather Station Entry Handling | |
| **Scenario:** | Technician want to use the operations for the entry files of the weather stations | |
| **Triggering Event:** | New Entry, Read Entry, Update Entry, Delete Entry | |
| **Brief Description:** | The Technician is the one who has access to the entry process and it contains the following operations on the files; Create, Read, Update, Delete | |
| **Actors:** | Technician  Database | |
| **Related Use Cases:** | Service Report Handling | |
| **Stakeholders:** | Operations and Maintenance: to handle the entries of the weather stations much faster therefore the process is giving availability and convenience to the technicians | |
| **Preconditions:** | Technician must have the privilege to access the entries of the weather machine.  Entry of weather machine must exist | |
| **Post Conditions:** | Entry is either updated or delete | |
| **Flow of Activities:** | Actor | System |
| 1. Technician   chooses to Create, Read, Update, Delete for the entries  For Create:   1. Technician selects the create option for the entries 2. Technician fills up the form 3. Technician saves the entry 4. Technician chooses to overwrite the existing entry   For Read:   1. Technician enters the entry ID for the whole information about the weather machine 2. Technician sees the given data 3. Technician terminates the process after seeing the information about the weather station   For Update:   1. Technician enters the ID of the weather station entry to be updated 2. Technician modifies the information 3. Technician applies changes to the entry   For Delete:   1. Technician wants to delete an entry 2. Technician selects the entry and deletes the entry 3. Technician confirms the deletion of the file | * 1. System prompts the user to select one option   2. Form is presented to the technician   4.1 Checks if there is an existing entry in the database  4.2 If there is an existing entry, prompts a confirmation windows if the user wants to overwrite it  2.1 Checks if there is an entry of the given ID  4.1 Process is terminated  2.1 Checks if there is an entry according to the given ID  4.1 Changes to the entry are applied; Database is updated  2.1 prompts to enter the specific weather machine entry to be deleted   * 1. Presents confirmation for deleting the selected entry   4.1 Database is updated |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Troubleshoot through phone | |
| **Scenario:** | Weather Station is broken and maintenance through the phone is the first solution to try | |
| **Triggering Event:** | Weather Station is broken or malfunctioning | |
| **Brief Description:** | Technician contacts Site manager so that they can troubleshoot and fix the Weather Station through the phone | |
| **Actors:** | Technician  Weather Machine  Site Manager  Data Quality Team | |
| **Related Use Cases:** | Scheduling for site visit | |
| **Stakeholders:** | Operations and Maintenance Department: to serve as a first solution before a site visit | |
| **Preconditions:** | Technician must have number of the site manager  Information about the weather station must be correct  Site Manager must respond | |
| **Post Conditions:** | A conclusion will be selected, either fix or needs to have a site visit  Call of the site manager and technician must be recorded for history | |
| **Flow of Activities:** | Actor | System |
| 1. Weather Machine is broken 2. Technician calls the Site Manager for maintenance 3. Site Manager answers the call 4. Technician gives the procedures to fix the broken Weather Machine 5. Site Manager applies the maintenance 6. Confirmation from Site manager is given to the technician   If fixed:   1. Data Quality is called to double check if the weather machine is operational   If not fixed:   1. Site Visit is scheduled | 1.1 Alert System is triggered   * 1. Error Code is presented to the technician   3.1 Call is being recorded from the start of the phone being picked up by the Site Manager  4.1 Displays the steps to fix the error through reference of the error code  6.1 Confirmation is recorded  7.1 Scheduling process takes over |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Double check for working weather machine | |
| **Scenario:** | Maintenance is applied to the weather machine | |
| **Triggering Event:** | Maintenance is done to the weather machine and technician contacts the data quality team | |
| **Brief Description:** | This process is to make sure that the weather station is functioning | |
| **Actors:** | Technician  Data Quality Team | |
| **Related Use Cases:** | Troubleshoot through phone | |
| **Stakeholders:** | Operations and Maintenance Department: to determine if weather station is fixed through maintenance | |
| **Preconditions:** | Maintenance must be done  Weather Station must exist | |
| **Post Conditions:** | Weather Station status is presented | |
| **Flow of Activities:** | Actor | System |
| 1. Technician contacts the data quality team 2. Data quality team answers the phone 3. Data quality team checks the weather machine and gives confirmation whether weather machine is functioning | 1.1 Call is recorded for history and information  3.1 weather machine status is presented  3.2 Confirmation is recorded |
| **Exception Conditions:** |  | |

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| **Use Case Name:** | Scheduling for site visit | |
| **Scenario:** | Maintenance through site visit is needed | |
| **Triggering Event:** | Maintenance through site visit is mandatory since maintenance through the phone didn’t work | |
| **Brief Description:** | This process is for scheduling for the site visit of a weather station for maintenance. Handles the dates and the people needed for the site visit | |
| **Actors:** | Technician | |
| **Related Use Cases:** | Troubleshoot through phone | |
| **Stakeholders:** | Operations and Maintenance Department: to make a scheduling for a site visit more convenience and have a quick process | |
| **Preconditions:** | Troubleshoot through phone method didn’t work  Location is needed | |
| **Post Conditions:** | Schedule is created and a team of technicians is selected | |
| **Flow of Activities:** | Actor | System |
| 1. Technician makes a schedule for site visit 2. Technician wants to select the available people for the site visit 3. Technician selects the dates and the technician for the site visit 4. Technician confirms the schedule | 1.1 Prompts the technician on the date of the site visit  2.1 Presents the technician of the availability of the people in the department  3.1 Confirmation of the schedule is presented |
| **Exception Conditions:** |  | |