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| --- | --- | --- | --- |
| Use Case ID: |  | | |
| Use Case Name: | Selection | | |
| Created By: | Li Guanlong | Last Updated By: |  |
| Date Created: | 2/9/2018 | Date Last Updated: |  |

Use Case Description

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| --- | --- |
| Actor: | User |
| Description: | This use case is to allow user to perform selections until their selections trigger any of the extension conditions. |
| Preconditions: | The application is opened by the user. |
| Postconditions: | The desired information is displayed properly on the screen. |
| Priority: | Nil |
| Frequency of Use: | (to be decided) |
| Flow of Events: | 1. After the user open the web application, a tool bar is displayed at the top of the web page, meanwhile, the map (of Singapore) will be displayed under the toolbar.  2. The user makes selection at the tool bar. There are two choices which are displaying emergency situations and displaying other useful information.  3. The user will be directed to the corresponding extension based on the choice made to the toolbar. |
| Alternative Flows: | AF: The user is able to go back to step 1 at any step includes all the steps of the extension use cases. (include more info about how to go back later) |
| Exceptions: | (to be decided) |
| Includes: | Nil |
| Special Requirements: | Nil |
| Assumptions: | Nil |
| Notes and Issues: | Extensions are added to avoid a very long flow of events.  The map (of Singapore) is displayed under the toolbar. |

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| Use Case ID: |  | | |
| Use Case Name: | Display Emergency Situations | | |
| Created By: | Li Guanlong | Last Updated By: |  |
| Date Created: | 2/9/2018 | Date Last Updated: |  |

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| --- | --- |
| Actor: | Null |
| Description: | This use case is to display the information of emergency situations. |
| Preconditions: | (This use case extends ) The user selects displaying emergency situations from the tool bar. |
| Postconditions: | The desired information is displayed properly on the screen. |
| Priority: | Nil |
| Frequency of Use: | (to be decided) |
| Flow of Events: | 1. A dropdown list appears. There are four choices on the dropdown list, which are natural hazard, display epidemic, display traffic accidents and display accidents within crowded areas.  2. The operation is then handled by the corresponding alternative flow (AF 1- 4). |
| Alternative Flows: | AF 1: At step 1, if the user selects display natural hazard.  1. A dropdown list appears, the choices on the dropdown list are  fire, haze, tsunami, typhoon, earthquake and earthquake  aftershocks.  2. Based on user’s selection, location of the corresponding hazard  is indicated as a coloured dot on the map (of Singapore).  3. The corresponding hazard’s date, location, intensity, possible  harms are displayed in a table under the map  4. Related hazard prevention and control information is displayed  under the table.  AF 2: At step 1, if the user selects display epidemic.  1. A dropdown list appears, the choices on the dropdown list are  HIV/AIDS, bird-flu and Zika.  2. Based on user’s selection, location of the corresponding  epidemic is indicated as a coloured dot on the map (of  Singapore).  3. The corresponding epidemic’s location, dangerous level and  case number are displayed in a table under the map.  4. Related epidemic prevention and control information is  displayed under the table.  AF3: At step 1, if the user selects display traffic accidents.  1. A dropdown list appears, the choices on the dropdown list are  single car accident, two car collisions and multiple vehicle pile-  up.  2. Based on user’s selection, location of the corresponding  accident is indicated as a coloured dot on the map (of  Singapore).  3. The centre of the corresponding traffic accident and the  dangerous zone along with the affected roads result from the  traffic accident are displayed in a table under the map.  AF4: At step 1 if the user selects display accidents within crowded areas.  1. A dropdown list appears, the choices on the dropdown list are  terrorist attacks and mass shooting.  2. Based on user’s selection, location of the corresponding  epidemic is indicated as a coloured dot on the map (of  Singapore).  3. The corresponding accidents’ location, attack intensity and  victims are displayed in a table under the map. |
| Exceptions: | (to be decided) |
| Includes: | Nil |
| Special Requirements: | Nil |
| Assumptions: | Nil |
| Notes and Issues: | Nil |

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| Use Case ID: |  | | |
| Use Case Name: | Display Other Useful Information | | |
| Created By: | Li Guanlong | Last Updated By: |  |
| Date Created: | 2/9/2018 | Date Last Updated: |  |

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| Actor: | External Databases |
| Description: | This use case is to display other useful information. |
| Preconditions: | The user selects display other useful information from the tool bar. |
| Postconditions: | The desired information is displayed properly on the screen. |
| Priority: | Nil |
| Frequency of Use: | (to be decided) |
| Flow of Events: | 1. A dropdown list appears, the choices on the dropdown list are weather and civil defence shelter.  2. The operation is then handled by the corresponding alternative flow (AF 1- 2). |
| Alternative Flows: | AF1: At step 1, if the user selects weather.  1. All required information about weather is retrieved from the  external database.  2. The information of today’s temperature, humidity, PM2.5, UV  light intensity and air pollutants are displayed on the top-half of  the webpage.  3. The following week’s weather forecast is displayed under  today’s weather information.  AF2: At step 2, if the user selects civil defence shelter.  1. All required information about civil defence shelter (CDS) is  retrieved from the external database.  2. The location of CDSs are indicated as blue coloured dots on  the map (of Singapore)  3. The user checks one of the CDSs (how to check will be added  later).  4. The information of whether the shelter is fully occupied will  be displayed on the screen (where to display will be added later). |
| Exceptions: | (to be decided) |
| Includes: | Nil |
| Special Requirements: | Nil |
| Assumptions: | Nil |
| Notes and Issues: | Nil |

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| Use Case ID: |  | | |
| Use Case Name: | Log in | | |
| Created By: | Fu Mengyan | Last Updated By: |  |
| Date Created: | 3/9/2018 | Date Last Updated: |  |

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| Actor: | Call center operator |
| Description: | The goal of use case Log in is to describe how a call center operator logs in the system |
| Preconditions: | The call center operator has an account with the system. |
| Postconditions: | The call center operator logs in the system. |
| Priority: | Top priority |
| Frequency of Use: | 50 times per day |
| Flow of Events: | 1.The system displays the login screen.  2.The call center operator enters username.  3.The call center operator enters password.  4.The call center operator clicks the login button.  5.The system validates the entered username and password.  A1.invalid username or password.  6.The call center operator logs into the system. |
| Alternative Flows: | A1.invalid username or password.  1.The system displays an error message which informs the call center operator that the username or password he enters is invalid.  2.The system redirected to the login screen. |
| Exceptions: | nil |
| Includes: | nil |
| Special Requirements: | nil |
| Assumptions: | nil |
| Notes and Issues: | nil |

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| Use Case ID: |  | | |
| Use Case Name: | Create new records | | |
| Created By: | Fu Mengyan | Last Updated By: |  |
| Date Created: | 3/9/2018 | Date Last Updated: |  |

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| --- | --- |
| Actor: | Call center operator |
| Description: | The goal of use case Create new records is to describe how a call center operator create new incident records according to the caller. |
| Preconditions: | A caller calls the call center operator to report an incident. |
| Postconditions: | nil |
| Priority: | Medium priority |
| Frequency of Use: | 10 times per day |
| Flow of Events: | 1.The call center operator activates the function to construct a new record (i.e. click “create new record” button).  2.System displays the record form to the call center operator.  3.The call center operator fills in the record form according to the information provided by the caller (as in use case Input information).  A1.The call operator stops the record creation process.  4.When the call center operator scrolls to the button of the record form, a ‘submit’ button is displayed. |
| Alternative Flows: | A1.The call operator stops the record creation process.  1.The call center operator clicks ‘exit’ button.  2.The call center operator is logged out of the system. |
| Exceptions: | nil |
| Includes: | Input information |
| Special Requirements: | nil |
| Assumptions: | nil |
| Notes and Issues: | nil |
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| Use Case ID: |  | | |
| Use Case Name: | Input information | | |
| Created By: | Fu Mengyan | Last Updated By: |  |
| Date Created: | 3/9/2018 | Date Last Updated: |  |

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| --- | --- |
| Actor: | Call center operator |
| Description: | The goal of use case Input information is to describe how a call center operator input information provided from the caller to a record. |
| Preconditions: | The system must have displayed a new record form to the call center operator. |
| Postconditions: | nil |
| Priority: | Medium priority |
| Frequency of Use: | 10 times per day |
| Flow of Events: | 1.The use case starts when the calling use case Create a new record is executed.  2.The call center operator keys in the name of the caller.  3.The call center operator keys in the phone number of the caller.  4.The call center operator keys in the postal code of the caller.  5.The call center operator keys in the building unit of the caller.  6.The call center operator chooses one out of four types of assistance (i.e. emergency ambulance, rescue and evacuation, fire-fighting and gas leak control). |
| Alternative Flows: | A1. The Internet connection breaks up.  1.The use case ends.  2.The call center operator must create a new record to input information. |
| Exceptions: | nil |
| Includes: | nil |
| Special Requirements: | nil |
| Assumptions: | nil |
| Notes and Issues: | nil |

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| Use Case ID: |  | | |
| Use Case Name: | Submit records | | |
| Created By: | Fu Mengyan | Last Updated By: |  |
| Date Created: | 3/9/2018 | Date Last Updated: |  |

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| Actor: | Call center operator |
| Description: | The goal of use case Submit records is to describe how a call center operator submit records to the database system. |
| Preconditions: | The call center operator must have created a record. |
| Postconditions: | The record created is stored in the database system. |
| Priority: | Medium priority |
| Frequency of Use: | 10 times per day |
| Flow of Events: | 1.The call center operator clicks ‘submit’ button.  2.The system displays the submit confirmation screen.  3.The call center operator clicks ‘yes’.  A1.The call center operator clicks ‘no’.  4.The record is stored in the database system. |
| Alternative Flows: | A1.The call center operator clicks ‘no’.  1.The call center operator can continue to input information to the record form. |
| Exceptions: | nil |
| Includes: | nil |
| Special Requirements: | nil |
| Assumptions: | nil |
| Notes and Issues: | nil |

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| Use Case ID: |  | | |
| Use Case Name: | Log out | | |
| Created By: | Fu Mengyan | Last Updated By: |  |
| Date Created: | 3/9/2018 | Date Last Updated: |  |

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| --- | --- |
| Actor: | Call center operator |
| Description: | The goal of use case Log out is to describe how a call center operator logs out the system |
| Preconditions: | The call center operator has an account with the system. |
| Postconditions: | The call center operator logs out the system. |
| Priority: | Top priority |
| Frequency of Use: | 50 times per day |
| Flow of Events: | 1.The system displays the log out screen.  2.The call center operator clicks Log out button.  3.The call center operator logs out the system. |
| Alternative Flows: | nil |
| Exceptions: | nil |
| Includes: | nil |
| Special Requirements: | nil |
| Assumptions: | nil |
| Notes and Issues: | nil |