# **Use Case Specifications**

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| **Document Intention:** | Stores the 10 Key Use-case specifications. |
| **Document Authors:** | Alfred Manville, Mohamed Mudhir |
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| **Document Version History:** | |
| 1. Document created. 2. Document completed and mostly fixed. | |

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| **Use Case ID**: 1 | **Use Case:** SignIn |

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| **Brief Description:**  Signs the user in to access the rest of the application. |
| **Primary Actors:** User |
| **Secondary Actors:** None |
| **Preconditions:**   1. There is a connection to the database. |
| **Main Flow:**   1. The user is presented with the ability to enter a username and password. 2. The user enters a username and password. 3. The user presses the login button. 4. The user gets logged in. 5. The user gets stored as the logged in user. 6. The screen gets updated to the GUI for the role of the logged in user. |
| **Postconditions:**   1. The user has been logged in. 2. The screen has been updated to the GUI for the role of the logged in user. |
| **Alternative Flows:**   * LoginAttemptFailed * ConnectionUnavailable |

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| **Use Case ID: 1** | **Use Case:** SignIn : LoginAttemptFailed |
| **Brief Description:**  The user specified does not exist or the password being incorrect will trigger this. | |
| **Primary Actors:** User | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user may have entered their username and password. 2. The login button has been pressed. 3. The username and password have been checked. | |
| **Alternative Flow:**   1. This flow starts after step 4 of the main flow. 2. The system shows an error on screen for “Login Attempt Failed.”. 3. The main flow is aborted. | |
| **Postconditions:**  None. | |

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| **Use Case ID: 1** | **Use Case:** SignIn : ConnectionUnavailable |
| **Brief Description:**  The database connection was unavailable for query. | |
| **Primary Actors:** User | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user may have entered their username and password. 2. The login button has been pressed. 3. The database is no longer available for connection. | |
| **Alternative Flow:**   1. This flow starts after step 3 of the main flow. 2. The system shows an error on screen for “Database Unavailable.”. 3. The main flow is aborted. | |
| **Postconditions:**  None. | |

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| **Use Case ID: 2** | **Use Case:** SignOut |
| **Brief Description:**  Signs the user out, back to the login screen. | |
| **Primary Actors:** User | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user is logged in. 2. There is a connection to the database. 3. The user has pressed the sign out button. | |
| **Main Flow:**   1. The user has any uncommitted database information processed. 2. The screen switches to the login GUI. 3. The user is no longer stored as the logged in user. | |
| **Postconditions:**   1. The GUI screen is now the login GUI. 2. The user is no longer stored as the logged in user. | |
| **Alternative Flows:**   * ConnectionUnavailable | |

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| **Use Case ID: 2** | **Use Case:** SignOut : ConnectionUnavailable |
| **Brief Description:**  The database connection was unavailable for storage. | |
| **Primary Actors:** User | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The sign out button was pressed. 2. The database is no longer available for connection. | |
| **Alternative Flow:**   1. This flow starts after step 1 of the main flow. 2. The system shows an error on screen for “Database Unavailable.”. 3. The main flow is aborted. | |
| **Postconditions:**  None. | |

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| **Use Case ID: 2** | **Use Case:** CreateAccount |
| **Brief Description:**  Creates a new user account to access the system. | |
| **Primary Actors:** SystemAdministrator | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user is logged in. 2. The user has pressed the create account button. | |
| **Main Flow:**   1. The user is shown an interface that allows them to enter all the personal information of the staff member, set the role of the staff member, their local currency, their password (With a confirm password box) and the email (Which acts as the username). 2. If the selected role is TravelAdvisor:    1. Allow for the commission percentage to be set. 3. Pressing the create button generates the account. 4. The add user interface is closed. | |
| **Postconditions:**   1. The GUI is closed. 2. The account is created. | |
| **Alternative Flows:**   * PasswordsNotMatching * Cancelled * ConnectionUnavailable | |

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| **Use Case ID: 3** | **Use Case:** CreateAccount : PasswordsNotMatching |
| **Brief Description:**  The password and confirm password text boxes do not have matching contents. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The create account button was pressed. 2. The text in the password and confirm password textboxes do not match. | |
| **Alternative Flow:**   1. This flow starts after step 3 of the main flow. 2. The system shows an error on screen for “Passwords do not match.”. 3. The main flow is reset to step 2. | |
| **Postconditions:**   1. The main flow is now back to step 2. | |

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| **Use Case ID: 3** | **Use Case:** CreateAccount : Cancelled |
| **Brief Description:**  The create account operation was cancelled. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The cancel button was pressed. | |
| **Alternative Flow:**   1. This flow starts after step 2 of the main flow. 2. The GUI is closed. 3. The main flow is aborted. | |
| **Postconditions:**   1. The GUI is closed. | |

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| **Use Case ID: 3** | **Use Case:** CreateAccount : ConnectionUnavailable |
| **Brief Description:**  The database connection was unavailable for storage. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The create account button was pressed. 2. The database is no longer available for connection. | |
| **Alternative Flow:**   1. This flow starts after step 3 of the main flow. 2. The system shows an error on screen for “Database Unavailable.”. 3. The main flow is reset to step 2. | |
| **Postconditions:**   1. The main flow is now back to step 2. | |

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| **Use Case ID: 4** | **Use Case:** RetrieveAccounts |
| **Brief Description:**  Retrieves all accounts from the database. | |
| **Primary Actors:** None | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user is logged in. 2. There is a connection to the database. | |
| **Main Flow:**   1. The database is queried for accounts. 2. For each queried account:    1. Store the queried account as an account object in an array. | |
| **Postconditions:**   1. There is now an array storing account objects. | |
| **Alternative Flows:**   * ConnectionUnavailable | |

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| **Use Case ID: 4** | **Use Case:** RetrieveAccounts: ConnectionUnavailable |
| **Brief Description:**  The database connection was unavailable for querying. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The database connection is now unavailable. | |
| **Alternative Flow:**   1. This flow starts after step 1 of the main flow. 2. An empty array is stored. 3. The main flow is aborted. | |
| **Postconditions:**   1. An empty array has been stored. | |

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| **Use Case ID: 5** | **Use Case:** RetrieveAccount |
| **Brief Description:**  Retrieves an account from the account array. | |
| **Primary Actors:** None | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user is logged in. 2. There is a connection to the database. 3. There is an account being searched for. | |
| **Main Flow:**   1. Include(RetrieveAccounts) 2. For each stored account in the array:    1. If the account is the one being searched for:       1. Return the stored account. 3. Return null | |
| **Postconditions:**   1. A value representing the stored account is returned. | |
| **Alternative Flows:**  None | |

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| **Use Case ID: 6** | **Use Case:** ModifyAccount |
| **Brief Description:**  Modifies an existing user account. | |
| **Primary Actors:** SystemAdministrator | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The user is logged in. 2. The user has selected an account to modify. 3. The user has pressed the modify account button. | |
| **Main Flow:**   1. Include(RetrieveAccount) 2. The user is shown an interface that allows them to enter all the personal information of the staff member, set the role of the staff member, their local currency, their password (With a confirm password box). The username part is readonly showing the current username and so is the role, showing the current role. 3. If the selected role is TravelAdvisor:    1. Allow for the commission percentage to be set. 4. Pressing the update button updates the account. 5. The add user interface is closed. | |
| **Postconditions:**   1. The GUI is closed. 2. The account is updated. | |
| **Alternative Flows:**   * PasswordsNotMatching * Cancelled * ConnectionUnavailable | |

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| **Use Case ID: 6** | **Use Case:** ModifyAccount : PasswordsNotMatching |
| **Brief Description:**  The password and confirm password text boxes do not have matching contents. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The create account button was pressed. 2. The text in the password and confirm password textboxes do not match. | |
| **Alternative Flow:**   1. This flow starts after step 4 of the main flow. 2. The system shows an error on screen for “Passwords do not match.”. 3. The main flow is reset to step 3. | |
| **Postconditions:**   1. The main flow is now back to step 3. | |

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| **Use Case ID: 6** | **Use Case:** ModifyAccount : Cancelled |
| **Brief Description:**  The modify account operation was cancelled. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The cancel button was pressed. | |
| **Alternative Flow:**   1. This flow starts after step 3 of the main flow. 2. The GUI is closed. 3. The main flow is aborted. | |
| **Postconditions:**   1. The GUI is closed. | |

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| **Use Case ID: 6** | **Use Case:** ModifyAccount : ConnectionUnavailable |
| **Brief Description:**  The database connection was unavailable for storage or querying. | |
| **Primary Actors: SystemAdministrator** | |
| **Secondary Actors:** None | |
| **Preconditions:**   1. The update account button was pressed. 2. The database is no longer available for connection. | |
| **Alternative Flow:**   1. This flow starts after steps 1 or 4 of the main flow. 2. The system shows an error on screen for “Database Unavailable.”. 3. The GUI is closed. 4. The main flow is aborted. | |
| **Postconditions:**   1. The GUI is closed. | |

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| ID: TM01 | **Use case:** Assign Blanks |
| **Brief description:**  This describes the process of assigning blanks to different travel advisors. | |
| **Primary actors:**  Office Manager | |
| **Secondary actors:**  None | |
| **Preconditions:**   * 1. The user is logged in and has access to the database.   2. The blanks have been identified. | |
| **Flow of events:**   1. The blank has been received. 2. Then the office manager assigns it to the travel advisor | |
| **Postconditions:**   1. Blank has been assigned | |
| **Alternative flow:**   * connection to the database is lost | |

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| Alternative flow: TravelAdvisorMistake |
| ID: TM01.1 |
| **Brief description:**  If the travel advisor makes a mistake the blank becomes void |
| **Primary actors:** Travel advisor |
| **Secondary actors:** None |
| **Preconditions:** user has logged in and has access to the database, blank has been identified |
| **Alternative flow:**  1.Travel advisor has inputted incorrect data   1. The void has now been voided |
| **Postconditions: this blank can now be assigned to another user.** |

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| ID: TM02 | **Use case:** Generate Report |
| **Brief description:**  User wants to generate a sales report to view | |
| **Primary actors:**  Office Manager | |
| **Secondary actors:**  None | |
| **Preconditions:**   * 1. The user is logged in and has access to the database. | |
| **Flow of events:**   1. The relevant data is retrieved from the database. 2. This information is then generated into a report. 3. This report is then made accessible to the office manager. | |
| **Postconditions:**   1. none | |
| **Alternative flow:**   * connection to the database is lost | |

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| Alternative flow: DatabaseConnectionLost |
| ID: TM02.1 |
| **Brief description:**  The connection to the database has been lost, therefore a report cannot be generated |
| **Primary actors:** Office Manager |
| **Secondary actors:** None |
| **Preconditions:** user has logged in but has lost connection to the database |
| **Alternative flow:**   * 1. the office manager can try and reconnect to the database to generate the report |
| **Postconditions:** a secure connection to the database has been made |

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| ID: TM03 | **Use case:** SetComissionRate |
| **Brief description:**  Set the commission rate of the ticket fare and the functioin to add and remove it | |
| **Primary actors:**  System administrator | |
| **Secondary actors:**  None | |
| **Preconditions:**   1. The system administrator is logged in and has access to the database. 2. System has triggered the set commission rate function. | |
| **Flow of events:**   1. The contracts are retrieved and then the rates are checked which were agreed upon in the contracts. 2. This number is then put as the commission rate depending on what type of ticket it is | |
| **Postconditions:**   1. The new commission rate for this type of ticket is set and updated to the database | |

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| ID: TM03 | **Use case:** Record Payment |
| **Brief description:**  Records the payments on the system | |
| **Primary actors: travel advisor** | |
| **Secondary actors: NONE** | |
| **Preconditions: system is logged in by user and travel agent 2. A payment must be made to record the payment.** | |
| **Flow of events: travel advisor,**  **record payment,**  **record either cash or card payment** | |
| **Postconditions:**  Payment is logged on the system | |

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| ID: TM03 | **Use case:** Payment Too Late Alert |
| **Brief description: it indicates to the system whether or not the payments on the account is late or not** | |
| **Primary actors: Time, user, office manager** | |
| **Secondary actors: NONE** | |
| **Preconditions: payment wasn’t paid in 30 days** | |
| **Flow of events:**  Time (30 Days elapse),  Payment too late,   retrieve customer account.  Send indication if customer has late payments. | |
| **Postconditions:**  Indication sent to the user and office manager | |

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| ID: TM03 | **Use case:** Sign in |
| **Brief description:**  Allows users to sign into the airline ticket system | |
| **Primary actors:  User** | |
| **Secondary actors:**  Database | |
| **Preconditions: user needs to enter username and password** | |
| **Flow of events:**  User,  Sign in,  Sign out, | |
| **Postconditions:**  User needs to be signed in to sign out of the system | |

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| ID: TM03 | **Use case:** Record USD Converted Payment |
| **Brief description:**  Records all payments on the system in the USD currency so that the payment can be managed, and rough profits can be calculated accordingly. | |
| **Primary actors: travel advisors** | |
| **Secondary actors:**  None | |
| **Preconditions:**  Payment needs to be made,  Transaction needs to be converted in usdt | |
| **Flow of events:**  Travel advisor,  Record payment,  Record USD converted payment. | |
| **Postconditions:**  The payment is recorded and put in the database when it is converted. | |

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| ID: TM03 | **Use case:** Retrieve Accounts |
| **Brief description: retrieves the account so the office manager can manage the account.** | |
| **Primary actors: Office manager** | |
| **Secondary actors: None** | |
| **Preconditions:**  Office manager requests for account retrieval,  The user had a not paid in time notification which automatically retrieves the user’s account. | |
| **Flow of events:**  Office manager,  Retrieve accounts,  Not paid in time,  Retrieve accounts,  Generate report,  Retrieve accounts | |
| **Postconditions:**  **Account retrieval gets sent to office manager and then back to the database.** | |