**User Guide & Test Plan – Sortie Logger**

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**Section 6381**

**Group 4**

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**Revision History**

|  |  |  |
| --- | --- | --- |
| **Name** | **Date** | **Description** |
| Zachary Hager | 8/22/2022 | Initial GUI with drop downs and text boxes |
| Matthew White | 8/29/2022 | Refinements to critical components. Add data storing methods |
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**User’s Guide**

**Starting UI:**

Program opens with opening window with two buttons and a close button:

|  |  |  |
| --- | --- | --- |
| Numeration | Buttons | Function |
| 1 | Add Sortie | Transitions/opens screen that allows user to create flight record. |
| 2 | Retrieve Sortie Record | Transitions/opens screen that allows user to recover previously saved flight records |
| 3 | Close (X) | Closes program. |

**Add Sortie UI:**

Screen that appears if “Add Sortie” is selected in the “Starting UI:”

|  |  |  |
| --- | --- | --- |
| Type | Input | Function |
| Text Field | Line Number (int) | User must assign a 3-digit line number to the flight. |
| Drop Down | Aircraft Tail Number  (string) | User must select from available aircraft identified by their tail numbers. |
| Text Field | Scheduled Take-off (int) | User must enter scheduled take-off time in Julian date and military time format: (YYDDD HHMM) |
| Text Field | Scheduled Land (int) | User must enter scheduled land time in Julian date and military time format: (YYDDD HHMM) |
| Text Field | Actual Take-off (int) | User must enter actual take-off time in Julian date and military time format: (YYDDD HHMM) |
| Text Field | Actual Land (int) | User must enter actual land time in Julian date and military time format: (YYDDD HHMM) |
| Conditional Text Field | Deviation Description  (string) | User must enter a short explanation if the “Actual” times deviate 30 minutes over or under the scheduled time. |
| Button | Save Record | Transposes the information the user entered into a document and saves it to the program/database. |

**Retrieve Sortie Record UI:**

Screen that appears if “Retrieve Sortie Record” is selected in the “Starting UI:”

|  |  |  |
| --- | --- | --- |
| Type | Input | Function |
| Query | Query Record (string) | User enters the sortie they wish to retrieve. |
| List | Displayed list of all documents | User can scroll through and select which flight record they wish to open. |
| Button | Delete Record | Allows user to delete record from database. |

**Test Plan**

**Introduction:**

This program will be an application that will add and retrieve records of aircraft sortie times (i.e., record take-off and land times of individual aircraft). At the axiom flights will take a “line” which is annotated by a 3-digit number (ex. “Line 151”). An aircraft will be designated for that line and annotated by it’s one letter and 4-digit tail number (ex. Aircraft “A0113”). These lines will have “scheduled” take-off and land times that will be annotated by Julian date and 24-hour time (ex. August 31, 2022 09:00 P.M. = 22243 2100). Next, there will be a text box to fill the “actual” take-off and land time of each sortie as sorties in real life will rarely follow the schedule perfectly. Lastly, an exception will be thrown requesting a statement from the user if the actual times are +/- 30 minutes from the scheduled time.

**Test Criteria:**

***Pass:*** Component being tested met or exceed expectations

***Fail:*** Component being test in met not expectation, or undermined other parts of the program

***Partial:*** Met some but not all requirements, and did undermine other parts of the program

**Testing Environment:**

Operating System: Windows 10 Home (latest version)

\*RAM: 256 MB

\*Disk space: 256 MB Total: (124 MB for JRE; 2 MB for Java Update, tentative 128 MB for program)

\*Processor: Minimum Pentium 2 266 MHz processor

IDE: Eclipse and IntelliJ IDEA (latest version’s)

\*Denotes minimum requirements. Actual hardware being used will be exponentially more powerful, but is not pertinent as long as the minimum requirements are met as we are not test performance.

**Test Table:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case # | Test Name | Test Description | Expected Result | Actual Result | Pass/Fail |
| 1 | Start Page | Program opens with two options to proceed to adding a sortie, or retrieving a record. | Test page is present with 2 options |  |  |
| 2 | Add Sortie | After selecting the ‘Add’ button a page to fill the details of a sortie appear. | Page to add a sortie appears. |  |  |
| 3 | Create Line | Acting as the sortie’s axiom, the user gives the sortie a 3-digit designation | Program accepts 3-digit line number. |  |  |
| 4 | Catching Line error | Makes the user reenter a line number if a character other than a number is entered | Prompt appears notifying the user of their error, user retries. |  |  |
| 5 | Tail Number | Drop down appears requesting the user select a preloaded aircraft tail number. | User selects tail number, and program proceeds. |  |  |
| 6 | Tail number error | Instructs user to select a tail number (aircraft) if the try to proceed without doing so. | Prompt appears notifying the user of their error, user retries. |  |  |
| 7 | Scheduled take-off | User enters scheduled take-off date and time in Julian date notation and military time. (YYDDD HHMM) | Program accepts users’ entry. |  |  |
| 8 | Scheduled land time | User enters scheduled land date and time in Julian date notation and military time. (YYDDD HHMM) | Program accepts users’ entry. |  |  |
| 9 | Actual take-off time | User enters actual take-off date and time in Julian date notation and military time. (YYDDD HHMM) | Program accepts users’ entry. |  |  |
| 10 | Actual land time | User enters actual land date and time in Julian date notation and military time. (YYDDD HHMM) | Program accepts users’ entry. |  |  |
| 11 | Time deviation over 30 minutes | Prompts user to enter a short explanation on why the aircraft took off late. | User enter string, program accepts string |  |  |
| 12 | Time deviation under 30 minutes | Prompts user to enter a short explanation on why the aircraft took off early. | User enter string, program accepts string |  |  |
| 13 | Date or time annotation error | User enters the date or time in the wrong format, or with wrong characters. | Prompt appears notifying the user of their error, user retries. |  |  |
| 14 | Save added sortie | User saves all previous information entered. | Sortie data is saved to its own file in the program/data base. |  |  |
| 15 | Data check before saving | User erroneously attempts to save data while one of the boxes is not filled. | Prompt appears notifying the user of their error, user retries without clearing the other fields. |  |  |
| 16 | Retrieve Data | After selecting the ‘Retrieve’ button a page appears with all the sorties on record. | List of all saved sorites appears. |  |  |
| 17 | Open archived data | User opens archived files. | User view’s record of previously added files. |  |  |