Black Box Test Plan

For this black box test plan, all tests are run from the AirlineMileageManagerUI program in eclipse. Any preconditions are noted in the test descriptions. Some of the tests require specific input files, listed in the test description. These files are provided below.

airlines.txt:

DESCRIPTION,IATA\_CODE,CALLSIGN,COUNTRY

United Airlines,UA,UNITED,United States

Delta Air Lines,DL,DELTA,United States

Southwest Airlines,WN,SOUTHWEST,United States

flights.txt

YEAR,MONTH,DAY,DAY\_OF\_WEEK,AIRLINE,FLIGHT\_NUMBER,ORIGIN\_AIRPORT,DESTINATION\_AIRPORT,SCHEDULED\_DEPARTURE,DEPARTURE\_TIME,DISTANCE,SCHEDULED\_ARRIVAL,ARRIVAL\_DELAY

2017,12,20,7,UA,234,ORD,JAX,0730,0730,1100,1139,-20

2018,1,26,7,DL,333,ATL,RDU,1030,1026,300,1209,-20

2018,1,27,2,WN,4414,FLL,DET,1855,1854,1019,2013,2

cardholders.txt:

FIRST,LAST,DATE,FLIGHT,ORIGIN,DESTINATION

Mike,Johnson,12/20/2017,UA234,ORD,JAX

Sarah,Winston,12/20/2017,UA234,ORD,JAX

Sarah,Winston,12/20/2017,UA234,ORD,JAX

Albert,Jones,1/26/2018,DL333,ATL,RDU

Sarah,Winston,12/20/2017,UA234,ORD,JAX

Sarah,Winston,12/20/2017,UA234,ORD,JAX

Mike,Johnson,1/27/2018,WN4414,FLL,DET

Kate,Weinberg,12/20/2017,UA234,ORD,JAX

Mike,Johnson,12/20/2017,UA234,ORD,JAX

Mike,Johnson,12/20/2017,UA234,ORD,JAX

flights2.txt

YEAR,MONTH,DAY,DAY\_OF\_WEEK,AIRLINE,FLIGHT\_NUMBER,ORIGIN\_AIRPORT,DESTINATION\_AIRPORT,SCHEDULED\_DEPARTURE,DEPARTURE\_TIME,DISTANCE,SCHEDULED\_ARRIVAL,ARRIVAL\_DELAY

2017,12,20,7,UA,234,ORD,JAX,0730,0730,1100,1139,-20

2017,12,21,7,UA,234,RDU,LOU,0730,0730,450,1139,-20

2018,1,26,7,DL,333,ATL,RDU,1030,1026,300,1209,-20

2018,1,27,2,WN,4414,FLL,DET,1855,1854,1019,2013,2

cardholders2.txt

FIRST,LAST,DATE,FLIGHT,ORIGIN,DESTINATION

Mike,Johnson,12/20/2017,UA234,ORD,JAX

Sarah,Winston,12/20/2017,UA234,ORD,JAX

Mike,Johnson,12/21/2017,UA234,RDU,LOU

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| --- | --- | --- | --- |
| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| **T1: TestProgramStart** | **Preconditions: The files airlines.txt, flights.txt, and cardholders.txt are in the input directory of the Eclipse project.**  Run the AirlineMileageManagerUI program from within Eclipse | The program starts successfully and begins prompting the user for input file names. | The program starts successfully and begins prompting the user for input file names. |
| **T2:**  **TestNonexistentAirlineFile** | **Preconditions: T1 has passed, and there is no file named “badfile1.txt” in the input directory of the project.**  When the program prompts for an airline file, enter “input/badfile1.txt” | The program prints “File not found,  try again.“ and prompts the user for a new airline file name. | 2 more entries are taken for the other filenames, and then a message stating “File not found, try again.” is printed. |
| **T3:**  **TestNonexistentCardholderFile** | **Preconditions: T1 has passed, there is a file named “airlines.txt” in the input directory, and there is no file named “badfile1.txt” in the input directory of the project.**  When the program prompts for an airline file, enter “input/airlines.txt”  When the program prompts for a cardholder file, enter “input/badfile1.txt” | The program prints “File not found,  try again.“ and prompts the user for a new cardholder file name. | 2 more entries are taken for the other filenames, and then a message stating “File not found, try again.” is printed. |
| **T4:**  **TestNonexistentFlightFile** | **Preconditions: T1 has passed, there are files airlines.txt and cardholders.txt in the input directory, and there is no file named “badfile1.txt” in the input directory of the project.**  When the program prompts for an airline file, enter “input/airlines.txt”  When the program prompts for a cardholder file, enter “input/cardholders.txt”  When the program prompts for a flight file, enter “input/badfile1.txt” | The program prints “File not found,  try again.“ and prompts the user for a new flight file name. | 2 more entries are taken for the other filenames, and then a message stating “File not found, try again.” is printed. |
| **T5:**  **TestLoadingValidFiles** | **Preconditions: T1 has passed and all of the specified files listed above the BBTP are in the input directory.**  When the program prompts for an airline file, enter “input/airlines.txt”.  When the program prompts for a flight file, enter “input/flights.txt”.  When the program prompts for a cardholder file, enter “input/cardholders.txt”. | The program loads the files successfully and prompts the user to either query (I)ndivivual cardholders, view (A)ll cardholder information, or (Q)uit. | The program loads the files successfully and prompts the user to either query (I)ndivivual cardholders, view (A)ll cardholder information, or (Q)uit. |
| **T6:**  **TestValidIndividualMileage** | **Preconditions: T1 and T5 have passed and all input files are present.**  When prompted for an option, enter “I” to view an individual cardholder.  Enter “Mike” for first name.  Enter “Johnson” for last name. | The program outputs the following to the file “output/reportOutput.txt”:  Mike Johnson earned    3300 miles with United Airlines (UA)    1019 miles with Southwest Airlines (WN) | The program outputs the following to standard output:  Mike Johnson earned    3300 miles with United Airlines (UA)    1019 miles with Southwest Airlines (WN) |
| **T7:**  **TestReportForNonexistentUser** | **Preconditions: T1 and T5 have passed and all input files are present.**  When prompted for an option, enter “I” to view an individual cardholder.  Enter “Svlad” for first name.  Enter “Cjelli” for last name. | The program outputs the following to the file “output/reportOutput.txt”:  Svlad Cjelli earned    no miles. | The program outputs the following to standard output:  Svlad Cjelli earned    no miles. |
| **T7:**  **TestReportAllUsers** | **Preconditions: T1 and T5 have passed and all input files are present.**  When prompted for an option, enter “A” to generate a report for all users. | The program outputs the following to the file “output/reportOutput.txt”:  Mike Johnson earned    3300 miles with United Airlines (UA)    1019 miles with Southwest Airlines (WN)  Albert Jones earned    300 miles with Delta Air Lines (DL)  Kate Weinberg earned    1100 miles with United Airlines (UA)   Sarah Winston earned    4400 miles with United Airlines (UA) | The program outputs the following to standard output:  Mike Johnson earned    3300 miles with United Airlines (UA)    1019 miles with Southwest Airlines (WN)  Albert Jones earned    300 miles with Delta Air Lines (DL)  Kate Weinberg earned    1100 miles with United Airlines (UA)   Sarah Winston earned    4400 miles with United Airlines (UA) |
| **T8:**  **TestDifferentFlightsSameFlightID** | **Preconditions: All input files are present**  Start the AirlineMileageManagerUI program.  Enter “input/airlines.txt” for airline file name.  Enter “input/cardholders2.txt” for customer file name.  Enter “input/flights2.txt” for flight file name.  Enter “A” to report all users. | The program prints the following to the file “output/reportOutput.txt”:  Mike Johnson earned    1550 miles with United Airlines (UA)  Sarah Winston earned    1100 miles with United Airlines (UA) | The program prints the following to standard output:  Mike Johnson earned    1550 miles with United Airlines (UA)  Sarah Winston earned    1100 miles with United Airlines (UA) |
| **T9**  **TestQuit** | **Preconditions: T1 and T5 have passed.**  When prompted for an option, enter “Q” to quit the program. | The program prints  “The program will now exit.” to the console and exits without error. | The program quits automatically after each request. |