SE 300 SRS Grading Rubric

Team: That "One" Team

Criteria	Rubric	Points Available	Points Awarded	Comments
Complete	Contains an introduction describing purpose and scope, an overview giving a product description and constraints, the requirements, and references with citations throughout.	3	2	citations/Bib.
Correct	Requirements match the needs statement and intent expressed in customer interview.	3	3	
Unambiguous	Requirements are worded such that unintended meanings are not likely.	3	3	
Consistent	Requirements do not conflict internally, and use consistent language and notation.	2	2	
Ranked	Requirements are ranked in terms of importance or schedule or other means.	2	2	Functional grouping
Verifiable	Requirements are stated concretely with measurable goals where possible.	3	2	
Modifiable	Document contains a revision history log.	2	0	No revision history or rev. info.
Traceable	Requirements are numbered for forward traceability. Requirements refer to needs statements for backwards traceability.	2	2	
Total		20	16	

Air Route Planner
Software Requirements Specification

That "One" Team
SE 300 Section 1

Table of Contents

Introduction

The purpose of this document is to specify the requirements for the development of an Air Route Planner. . The ARP operates only during a 24 hour period (0000-2359).The system will receive airport information through a text file which contains airport route, carrier name, depart airport, arrival airport, arrival and departure times and cost. The system will calculate a travel route based on the following parts: cost, time and airline available for that time.

Team Project Information

Course: Spring 2013 SE300 Section 1

Team: That "One" Team

Members/Roles:

- **Team Leader:** Brian Powell
- **Development Manager:** Brittany Rompa
- **Planning Manager:** Craig Wilkerson
- **Quality Manager:** Yutong Zhu
- **Req/Support Manager:** Muraad Khan

Schedule

Projects launch	01/30/2013
Github & Requirements questions	02/01/2013
Strategy/Plan	02/04/2013
Project plan	02/06/2013
Interview	02/08/2013
Task	02/10/2013
Requirements	02/11/2013
Requirements	02/13/2013

Requirements Specification

User Interface Requirements

1. The user interface for the program shall be of a graphical nature.
   1.1. The interface shall allow the user to enter:
      1.1.1. Origin
      1.1.2. Destination
      1.1.3. Sorting Criteria
         1.1.3.1. Cost
         1.1.3.2. Time
         1.1.3.3. Airline
         1.1.3.4. Airport
            1.1.3.4.1. Service to
            1.1.3.4.2. Service from

   1.2. The interface shall display the results to the user
   1.3. The interface shall allow the user to:
      1.3.1. Add/Modify airports
      1.3.2. Add/Modify routes
         1.3.2.1. Airlines based on existing routes ?
      1.3.3. Delete
         1.3.3.1. Airports
         1.3.3.2. Routes
      1.3.4. Display most current route information (i.e. all routes in network)
      1.3.5. Display airports that can be reached from a given airport
      1.3.6. Display air route information for a given route
      1.3.7. Close airport
         1.3.7.1. Re-open closed airport
      1.3.8. Save any modifications made

Data Input Specifications

2. Data will be read in from a text file
   2.1. Data will be separated into sections denoted by '#'
   2.2. The keyword "#comment" will designate a comment line that is not to be parsed by the system
      2.2.1. Must be first word in commented line
   2.3. No upper bound to the number of airports, routes or closures listed in the file
   2.4. All data fields are of type string
   2.5. Optional fields are allowed
      2.5.1. If an optional ~~field~~ is used, the system must be able to parse data that does not contain values in these fields

2.5.2. If an optional field is not used, the system must be able to parse data that is contained in these fields

2.6. The system must recognize bad data ← defined?

2.6.1. System will alert the user that bad data was encountered

2.6.2. The data must be either discarded or tagged as unusable

2.7. Once the data is loaded, there are no restrictions on ordering of data or data type

what about syntactically correct data that makes no sense (arrive before depart).

Data Modification Requirements

3. System will allow user to enter new routes
   3.1. New routes will require the following information
      3.1.1. Airline
      3.1.2. Departure airport
         3.1.2.1. Error if the airport is not already in the network
      3.1.3. Departure time
         3.1.3.1. Error if the departs before midnight ← it has to depart before midnight.
      3.1.4. Arrival airport
         3.1.4.1. Error if the airport is not already in the network
      3.1.5. Arrival time
         3.1.5.1. Error if the flight time is less than thirty minutes
         3.1.5.2. Error if the flight arrives before it departs
         3.1.5.3. Error if the flight arrives after midnight
      3.1.6. Price
         3.1.6.1. Error if the price is less than zero

Error if flight time includes midnight?

- it has to arrive after midnight

4. System will allow user to add new airports
   4.1. Airports must have a three letter call code – all caps?
   4.2. Airports must be initialized with no added routes
5. System will allow user to delete routes – repeat with 1.3.3.2?
6. System will allow user to delete airports
   6.1. Any routes associated with deleted airport must be deleted as well
7. System will allow user to close airport
   7.1. Airport must remain closed until user re-opens airport
   7.2. Error must be generated if user attempts to close a closed airport
8. System shall only save modifications at user's request
   8.1. If requested, all data will be written to the input file
      8.1.1. Additions will be appended to the end of the file
      8.1.2. Deletions will remove the data from the file
   8.2. Any modifications will automatically appear in other related fields

Since no sequential time close - open parameters needed at same time

why? What if 2 events affect same airport?

wow! :)

System Output Requirements

Is o/d record deleted?

9. System will display results based on filter selected
   9.1. Cheapest route filter will return the following information:
      9.1.1. Total price of flight
      9.1.2. Total travel time (including layover)

9.1.3. Names of paths used

9.2. Shortest total travel time filter will return the following information:

9.2.1. Total price of flight

9.2.2. Total travel time (including layover)

9.2.3. Names of paths used

9.3. Using a specific airline for the greatest percentage of time will return the following information:

9.3.1. Total price of flight

9.3.2. Total travel time (including layover)

9.3.3. Names of paths used

9.4. There will be a filter that will allow the user to display all three filters at once

10. System shall allow the user to see all airports currently in the network

10.1. Information must be tabularized for easy viewing

11. System shall allow the user to see all airlines that service a given airport

11.1. Information must be tabularized for easy viewing

12. System shall allow the user to see the air route information for all routes

12.1. Information must be tabularized for easy viewing

12.2. Information must consist of:

12.2.1. Carrier

12.2.2. Departure airport

12.2.3. Departure time

12.2.4. Arrival airport

12.2.5. Arrival time

12.2.6. Price of flight

Non-Function Requirements

13. The program shall use twenty-four hour time format
14. The program shall use appropriate exception handling so that the system responds with a clear, descriptive message when an error or exceptional condition occurs.
15. The implementation programming language must be a "standard" version of a widely used language.
16. The system must be easily portable to a variety of computer environments
17. The system must be easy to maintain

18. User guide?

External Interface Requirements