

# Airplane Reservation System (ARS) Documentation

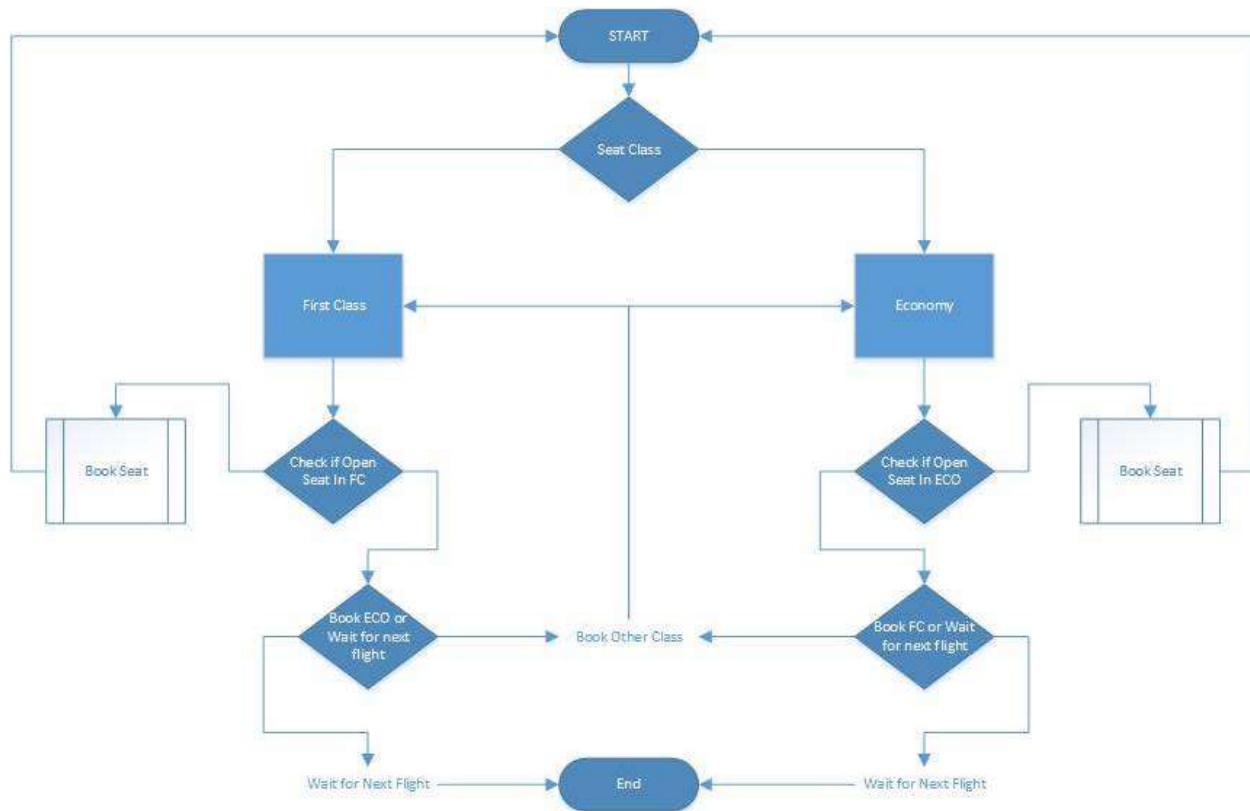
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CPT 212 – 001 Spring 2018

## Contents

Flowchart showing structure of the application:.....	2
Pseudocode:.....	2
Forms .....	4
Program Requirements and Testing .....	5
Main Functionality: .....	5
Improvements:.....	5
Credit.....	6

Flowchart showing structure of the application:



Pseudocode:

*Declare array to hold whether seat is booked or not*

*Declare Boolean variable to hold if FirstClass is full*

*Declare Boolean variable to hold if Economy is full*

*Create picturebox control array to hold seat icons*

*Declare Boolean variable to break out of while loop once a seat is filled.*

*Declare a counter*

*While the seat is empty, if FirstClass is selected and we are looking at seats 1-5*

*If the seat is empty, then make seats(i) = true, change the color of the picturebox  
and exit loop*

*Create while loop for "emptySeat"*

*Create If Then statement that -If first class and economy is full, then move to Economy*

*Declare newFlight*

*Set newFlight = Message Box*

*Create if Else to determine the result of DialogResult*

*While the seat is empty, if Economy is selected and we are looking at seats 6-10*

*If the seat is empty, then make seats(i) = true, change the color of the picture box, exit loop*

*If counter is below 5 and Economy is selected then make counter start at 5*

*Else add one to counter and re-loop.*

*If first class and economy is full, then move to Economy*

*Reset the form for next flight –*

*Else newFlight = DialogResult.Yes*

*Close Form*

*DLL for capturing screen and printing*

*Get the screenshot*

*Capture boarding pass panel*

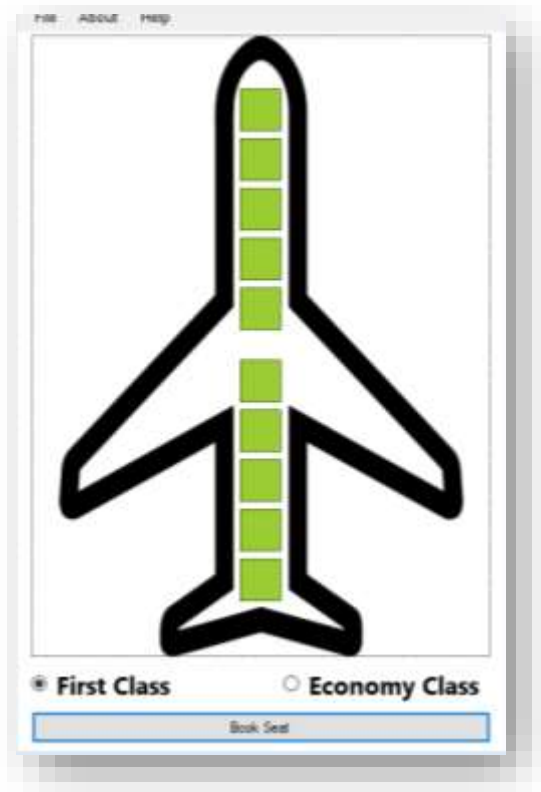
*Sets print area for print button event*

*Print the Boarding Pass*

## Forms

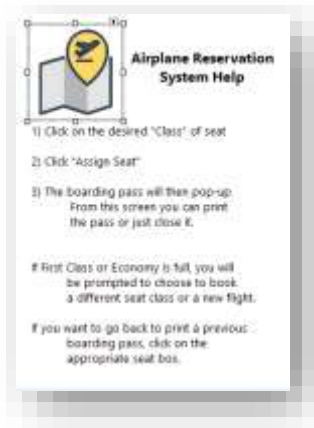
### Main form:

This form is the main, containing menu bar, seat indicators, First Class and Economy Class radio buttons, and a “Book Seat” button. The user selects either First Class or Economy Class and clicks the “Book Seat” button to display the boarding pass. After booking a flight, the user can bring a boarding pass back up by clicking on the desired seat.



### Help form:

The help screen provides the user with simple instruction on how to use the application:



## Program Requirements and Testing

### Main Functionality:

Completed?	Requirement	Date Completed	Date Tested
x	Uses one dimensional Boolean array	4/18/18	4/20/18
x	Has First(Seats 1-5) and Economy(Seats 6-10) classes	4/18/18	4/20/18
x	Provides Boarding Pass	4/19/18	4/20/18
x	If a class is full, offer other class	4/18/18	4/20/18
x	If plane is full, "Next flight leaves in 3 hours"	4/18/18	4/20/18
x	Cannot assigns seats previously assigned	4/18/18	4/20/18

### Improvements:

Completed?	Potential Improvement	Notes	Date Completed
x	Available seating display	Implemented	4/19/18
x	Printable Boarding Pass	Prints boarding pass	4/19/18
	One page application	Chose to use multiple forms for ease of use	

## Credit

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Final Project: Airplane Reservation System (ARS)

