report.docx Jonathan Goh

**Obstacles-**

Some major obstacles that I encountered included:

* Creating efficient calculations/conditions
  + I wanted to make sure that all redundancies and unnecessary code was taken out of the program. When creating the conditions for the if statements, the order of the conditions became very important. For example, having the step to check for seniors before checking for adults eliminated a required upper-bound for adults (18<=adult instead of 18<=adult<65 ). This is due to the fact that the check for seniority satisfies the check for anyone 65+.
* Terminating the program when needed
  + I had some trouble with terminating the program after an incorrect value was entered into the initial questionnaire. I eventually figured out that using a simple return statement would be the easiest way to end the program after an error was spotted.

**Test Data/Reasoning-**

The test data that ended up using included:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Trial 5** | **Trial 6** | **Trial 7** | **Trial 8** |
| **Age** | 5 | 5 | 20 | 20 | 20 | 20 | 100 | 100 |
| **Student** | Y | Y | Y | Y | N | N | N | N |
| **Destination** | Dallas | Dallas | Dallas | Dallas | Dallas | Dallas | Dallas | Dallas |
| **# of Zones** | 1 | 5 | 1 | 5 | 1 | 5 | 0 | 5 |

Trial 1 – Checks minors with 1 or less zones (discount)

Trial 2 – Checks minors with more than one zone (no discount)

Trial 3 – Checks adult students with 1 or less zones (discount)

Trial 4 – Checks adult students with more than one zone (no discount)

Trial 5 – Checks adult non-students with 1 or less zones (no discount)

Trial 6 – Checks adult non-students with more than one zone (no discount)

Trial 7 – Checks seniors with 0 zones (extra-discount)

Trial 8 – Checks seniors with more than 0 zones (less-discount)