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| **Use Case Name:** | Compute Cost |
| Related Requirements |  |
| Goal in Context | Perform all calculations required to compute the cost of a trip |
| Preconditions | A customer must have successfully reserved a flight  Any updates from the CRATD must have been successfully made An agent has an existing account |
| Successful End Condition | The cost has been successfully computed and a customer’s account credit balance is successfully updated |
| Failed End Condition | An agent fails to compute the cost or update a customer’s account credit balance is not updated. |
| Primary Actor(s) | Agent  EFL |
| Secondary Actor(s) |  |
| Trigger | After a flight reservation is created, a cost will be computed |

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| **Main Flow** | **Step** | **Action** |
|  | 1 | An agent begins the compute cost procedure |
|  | 2 | The cost per mile per airline fee is computed |
|  | 3 | The airport fee is computed by summing airport service fees |
|  | 4 | The agency’s fee is computed |
|  | 5 | Customer’s credit balance is updated |
|  | 6 | The total cost is calculated |
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| **Extensions** | **Step** | **Branching Action** |
|  | 2.A.1 | The trip is either not a multi-leg trip, or does not subsequent legs chartered by the same airline  So, we do not have to calculate any cost discounts |
|  | 2.A.2 | The cost per mile per airline fee is equal to the sum of the products of each leg’s cost per mile rate and the distance traveled |
|  | 2.B.1 | The trip is a multi-leg trip in which subsequent legs are chartered by the same airline |
|  | 2.B.2 | Compute the adjusted cost per mile per airline fee by factoring in any discounts |
|  | 4.A.1 | If the customer has not made a flight reservation at the agency before, the standard “plan-to-go” fee is added to the total cost |
|  | 4.B.1 | If the customer has made a flight reservation at the agency before, an adjusted “plan-to-go” fee is added to the total cost |
|  | 4.B.2 |  |
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