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**Analysis**

Description: The developed program will allow Miguel and other travelers to plan their trips, offering the possibility to explore different options of airfares with additional services. The system will calculate prices based on the XS, S, and M fares, taking into account the weight of the luggage and user preferences, such as seat choice and additional bags. Additionally, the program will include functionalities such as recording past prices and displaying the highest price calculated so far.

**Inputs:**

Choice of traveling alone or accompanied.(String)

Approximate weight of the luggage for each traveler (in kilograms).(double)

Fare choice for each person.(string)

Choice of additional services for each person (additional bags of 10 kg, additional bags of 23 kg).(string)

Seat choice (in case of choosing fare M).(string)

Confirmation of desire for additional services.(string)

**Outputs:**

Fare details for each person.(string)

Total travel cost for each person or for the group if traveling with friends.(double)

Detailed description of the chosen fare with its associated benefits.(string)

Confirmation of selected additional services for each person.(string)

Farewell message with the total travel cost and any relevant additional information. (string)

**Examples:**

**User is asked if they are traveling alone or accompanied.**

* User says they are traveling alone.

**User is asked how many kilograms of luggage they are carrying.**

* User says they are carrying 14kg of luggage.

**User is offered fare M and asked if they agree with the suggestion.**

* User chooses the suggested fare.

**User is informed that by choosing fare M, they are entitled to choose a seat. They are asked if they want a seat in the aisle, window, or middle.**

* User chooses window.

**User is asked if they want any additional services such as an additional bag of 10kg and an additional bag of 23kg.**

* User decides not to take any additional services.

**The total price of their flight is shown taking into account the additional services.**

***Methods contracts***

***Method 1: Welcome.***

Description: Welcomes the user and asks if they are traveling alone or accompanied.

@param string, user indicates if they are traveling alone or accompanied.

@return no return.

***Method 2: Total Passengers.***

Description: In case the user is traveling accompanied, asks how many additional passengers will be traveling.

@param int, user inputs the number of additional passengers.

@return no return.

***Method 3: Luggage Weight.***

Description: Asks the user how many kilograms of luggage they will be carrying.

@param double, user inputs the weight of their luggage.

@return string, based on the luggage weight, recommends a fare to the user that meets their needs and the benefits of the chosen fare.

***Method 4: Fare Selection.***

Description: Asks the user which fare they want to choose.

@param string, user inputs the desired fare.

@return string, depending on the chosen fare, informs the user of the commitments and benefits associated with the fare.

***Method 5: Seat Selection.***

Description: If the user chooses fare M, asks them which seat they prefer, aisle, middle, or window.

@param string, user inputs their preferred seat.

@return no return.

***Method 6: Additional Services.***

Description: Asks the user if they want to add any additional services, such as a 10kg or 23kg bag.

@param string, user decides if they want any additional services. Then chooses which service they want and how many additional bags they want to carry if desired.

@return no return.

***Method 7: Calculate Total Price.***

Description: Calculates the total price of the user's flight considering fares and additional services.

@param no parameters.

@return string, Informs the user of the total amount to be paid and bids farewell.