Analysis atlasEvent
Samuel Rengifo
A00404150

Input:
int reservationNights (x>=1, x<=3) AT LEAST 1

       final double priceBase 200000 per night, if it x is 3 a 10% discount will apply.

String oneWayOrRoundTripTransportation (One way, Round trip)

String transportationChoice (Bus - Plane) JUST ONE TO SELECT

String ynVipPackage (Y/N)

Output:
double totalCheckNoTaxesNoVip

double stayoverValuePrice

double transportationValuePrice

Analysis:

Carolina needs to do a program that will calculate the cost and do the receipt of each travel package that is sold by certain conditions.

The base cost of each travel package will depend on the choices of the user regarding accommodation and transportation.

The user will have the possibility to reserve 3 nights maximum but the user should stay at least 1 night with ATLAS.
Each night has the price of $200.000 and if the user chooses the 3 nights, a 10% discount will apply to the 3 nights price.

About the transportation, the user can reserve **one way or round trip** and will have the option of transport by **bus($100.000)** or **plane($300.000),** if it's a round trip, the first and the second way will be in the same transportation method.

Additional ATLAS offer a VIP package which offers a preferential moment to enter to the stage, access to food and exclusive drinks and the possibility to meet the members of RBD.
The price of this VIP package is 30% of the total of the package and it is calculated before service taxes.

Then a 20% will apply to all the packages which are corresponding to the service taxes.

Method description:

Method 1: Welcome-SystemOutPrint | Method <u>VOID</u>

Description: This method will display the introducing text to the program, will welcome the user and will explain to the user that he/she has to stay at least one night with Atlas to reserve the night.
Input: none
Output: none
Result: Will be SystemOutPrint lines

//@return **no return apply to this method**

Method 2: Check&Calculate-Total-Nights-Price | Method DOUBLE

Description: With the variable before inputted in main (totalNightsPrice), this method will evaluate values with a prerequisite in main, so it will only evaluate values from 1 to 3. There will be 3 possible options to calculate totalNightsPrice and if the user decides to choose 3 nights to stay, a 10% discount will be applied to his stay over with Atlas.
Input: double totalNightsPrice
Output: none
Result: totalNightsPrice as return value

//@return **double** totalNightsPrice

Method 3: Transportation-SystemOutPrint | Method <u>VOID</u>

Description: This method will just display information about the prices and options to take at the moment of choosing a transport method.
Input: none
Output: none
Result: Will be SystemOutPrint lines

//@return **no return apply to this method**

Method 4: Calculate-OneWay-Price | Method DOUBLE

Description: The method will start comparing if the String oneWayOrRoundTripTransportation has the word "oneway" and if it's true, it will invoke the third method to display the information about transportation, to then request to type which transport method he decided to use (bus or plane), so depending of the choose of the user, the system will calculate in console and save into the variable the price of that oneway choose.
Input: String oneWayOrRoundTripTransportation
Output: transportationSout()
Result: totalTransportationPrice as return value

//@return **double** totalTransportationPrice

Method 5: Calculate-RoundTrip-Price | Method DOUBLE

Description: The method will start comparing if the String oneWayOrRoundTripTransportation has the word "roundtrip" and if it's true, it will invoke the third method to display the information about transportation, to then request to type which transport method he decided to use (bus or plane), so depending of the choose of the user, the system will calculate in console and save into the variable the price of that roundtrip choose.
Input: String oneWayOrRoundTripTransportation
Output: transportationSout()
Result: totalTransportationPrice as return value

//@return **double** totalTransportationPrice

Method 6: VIPpackage-SystemOutPrint | Method <u>VOID</u>

Description: This method will just display information about the VIP package and will display the price to help the user to decide if he really wants to take this extra service.
Input: double totalCheckNoTaxesNoVip
Output: (totalCheckNoTaxesNoVip*0.3) as the price of the package
Result: Will be SystemOutPrint lines

//@return **no return apply to this method**

Method 7: Add VIPpackage to check | Method DOUBLE

Description: As the VIP price is calculated in main, in this method, the user just will decide with YES/NO if he wants to take the VIP package price with value that he saw second before, if he decided to take it, the variable will update.
Input: double vipPricePackage
Output: none
Result: vipPricePackage as return value to update the vip package price

//@return **double** vipPricePackage

Method 8: TotalCheck-SystemOutPrint | Method <u>VOID</u>

Description: This method will just display all the costs that sum to the total check, for that, the system will retake some values saved from returns to the main variable and then it will display it by some established calculation.
Input: double stayoverValuePrice, **double** transportationValuePrice, **double** totalCheckNoTaxesNoVip
Output:
-(stayoverValuePrice) for Stayover display value

-(transportationValuePrice-stayoverValuePrice) for Transportation display value

-(totalCheckNoTaxesNoVip-((stayoverValuePrice)+(transportationValuePrice-stayoverValuePrice)) for VIP package display value

-(totalCheckNoTaxesNoVip*0.2) for Taxes

-(totalCheckNoTaxesNoVip+(totalCheckNoTaxesNoVip*0.2)) for Total price

//@return **no return apply to this method**

ATLAS
Agency

67 Avenue, 9st
Medellín, Antioquia

Stayover: $xxx.xxx
Transportation: $xxx.xxx
VIP Package: $xxx.xxx
Taxes: $xxx.xxx

TOTAL $X.XXX.XXX