**Stepped Algorithm**

Algorithm Wanderlust\_Invoice

{This algorithm prompts the user to input the client’s last name, the tour booked by the client, the tour date, the number of people in their touring party as well as the new tour price of the tour booked by the client. It calculates the excursion price of the tour. A 10% discount is given to parties with 5 or more people and outputs “Group Special”. For parties with less than 5 people it outputs “Regular Price”. For all bookings it outputs an invoice which includes the client’s last name, the tour booked by the client, the tour date, and the number of people in their touring party as well as the total price for the booking along with the specified message}

{Created by Arianna St.John}

{Date: 06/03/2023}

LastName,Tour, TourDate String {Variables storing the client’s last name, the tour booked by the client and the tour date}

Entries, GroupSize Integer {Variables storing the loop variable which allows the loop to increment and the booking entries and the number of people in the client’s touring party}

NewTourPrice,ExcursionPrice,TotalPrice Real {Variables storing the new tour price of the tour booked by the client, the excursion price of the tour and total price to be paid}

Start

(Step 1) Entries<--1 {Initialisation of the variable to 1}

(Step 2) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 3) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 4) Insertline

(Step 5) Repeat

(Step 5A) Print 'Enter the last name of the client ' {Prompts the user to input the client’s last name}

(Step 5B) Read LastName {Stores the client’s last name}

(Step 5C) Insertline

(Step 5D) Print 'Enter the tour booked by the client ' {Prompts the user to input the tour booked by the client}

(Step 5E) Read Tour {Stores the tour booked by the client}

(Step 5F) Insertline

(Step 5G) Print 'Enter the tour date ' {Prompts the user to input the tour date}

(Step 5H) Read TourDate {Stores the tour date}

(Step 5I) Insertline

(Step 5J) Print 'Enter the number of people in the touring party of the client ' {Prompts the user to input the number of people in the touring party of the client}

(Step 5K) Read GroupSize {Stores the number of people in the touring party of the client}

(Step 5L) Insertline

(Step 5M) Print 'Enter the new tour price of the tour $' {Prompts the user to input the new tour price of the tour}

(Step 5N) Read NewTourPrice {Stores the new tour price of the tour}

(Step 5O) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 5P) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 5Q) Insertline

(Step 5R) Print 'Date: 06/03/2023' {Outputs the date of the invoice}

(Step 5S) Insertline

(Step 5T) Print 'Thank you for booking a tour with Island Wanderlust.' {Outputs a message thanking the client}

(Step 5U) Insertline

(Step 5V) Print 'Below is your personal information as well as the total amount to be paid for the tour.' {Outputs a message indicating that the client's information is below}

(Step 5W) Insertline

(Step 5X) Print '------------------------------------------------------------------------------------------------------------------------'

(Step 5Y) Insertline

(Step 5Z) ExcursionPrice<--NewTourPrice\*GroupSize {Calculates the excursion price for the touring party}

(Step 5AA) If GroupSize>=5 Then {Determines whether or not the touring party has 5 or more people and gives them a 10% discount if they do,calculates the total price for the customer}

(Step 5AB) TotalPrice<--ExcursionPrice- ExcursionPrice\*0.10 {Calculates the total price to be paid for a touring party with 5 or more people}

(Step 5AC) Print 'Group Special' {Outputs a message indicating that the touring party has 5 or more people}

(Step 5AD) Else

(Step 5AE) TotalPrice<--ExcursionPrice {Calculates the total price to be paid for a touring party with less than 5 people}

(Step 5AF) Print 'Regular Price' {Outputs a message indicating that the touring party has less than 5 people}

(Step 5AG) Endif

(Step 5AH) Insertline

(Step 5AI) Print 'The last name of the client is ',LastName {Outputs the client’s last name}

(Step 5AJ) Insertline

(Step 5AK) Print 'The tour booked by the client is ',Tour {Outputs the tour booked by the client}

(Step 5AL) Insertline

(Step 5AM) Print 'The tour date is ',TourDate {Outputs the tour date}

(Step 5AN) Insertline

(Step 5AO) Print 'The number of people in the touring party of the client is ',GroupSize {Outputs the number of people in the touring party of the client}

(Step 5AP) Insertline

(Step 5AQ) Print 'The total price to be paid is $',TotalPrice:3:2 {Outputs the total price to be paid}

(Step 5AR) Insertline

(Step 5AS) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 5AT) Print '\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_'

(Step 5AU) Insertline

(Step 5AV) Insertline

(Step 5AW) Entries<--Entries+1 {Statement counting the looping variable}

(Step 6) Until Entries=6

(Step 7) Stop.