Solution

To solve the problems of what my customer wants, l aim to create a program that asks the user for the type of holiday they want and their originating city, whether this is where they are flying out from, or the first city they want to visit. The program will then display several options for the user in order of how far they are from the starting city. My computerised approach would be to program a database by using python where I can store the city information, the distance information and the package information. For each of the cities, I would create a table that finds how far each of the cities are from the other cities. For example:

|  |  |  |  |
| --- | --- | --- | --- |
| City | Distance from City 0 | Package | Hotel |
| City 1 | 4053 | Romantic | Hotel 1 |
| City 2 | 10562 | Family | Hotel 2 |
| City 3 | 3165 | Backpack | Hotel 3 |
| City 4 | 1042 | Romantic | Hotel 4 |

The data that is required for each city package

* The cities that falls under the package
* The hotel that the customer will stay at.
* The holiday type

The data that is required for each city is:

* The country the city is in
* The currency being used
* The national language of the city
* Time Zone for the city
* The nearest airport to the hotel they will be staying at.

Data Inputs for cities

Ignore this table at the moment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item of data | Description | Type | Source | Description | Validation |
| City ID | Each city is assigned a unique identification number, for example 3 | Integer | Client | This is the record ID | N/A |
| City | The name of the city, for example, London | Text | Internet |  |  |
| Country | The country the city is based in, for example England | Text | Internet |  |  |
| National Language | The main language spoken in that city, for example, English | Text | Internet |  |  |
| Time Zone | The Time Zone that the city falls under, for example, GMT | Text | Internet |  |  |
| Airport | The nearest airport to the hotel, for example, Heathrow | Text | Internet |  |  |

Data Inputs for packages

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item of data | Description | Type | Description | Source | Validation |
| Package ID | Each package is assigned a unique identification number, for example, 6 | Integer | ID for each of the records | Myself | N/A |
| Package | The name of the package being offered. For example, Family holiday | Text | The package type for each of the records | Myself | Must be a string |
| City 1 | The name of the cities that fall under the package | Text | The city that is included for in the package | Internet | Must be a string |
| Hotel | The hotel that falls under the package | Text | The hotel that is included in the package | Internet | Must be a string |