Tutorial upload as part of the assessment.

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Tutorial Tasks Assignment Title: Design/Implementation

Note: Submit evidence showing the process and workings for your weekly tutorial Apex tasks.

Take screenshots showing clearly:

1. Student id in Apex account
2. Apex 5 – university www address
3. Time and date on your machine

E.g.

1

2

A screenshot of a computer

Description automatically generated

3

Important note: We expect to see all Recent activities in the Apex account. If these are blank or older then expected during the semester run (e.g. no activity or no activity for a few weeks) we will assume that your code is result of poor practice, as it is impossible to write a fully functional code without a practice.

E.g. Screenshot of SQL Workshop Home page (include as many as you need to evidence your 12 weeks engagement).

A screenshot of a computer

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Screenshot of SQL scripts environment (include as many as you need to evidence your 12 weeks engagement)

A screenshot of a computer

Description automatically generated

Screenshot of SQL Commands – SAVED scripts (include as many as you need to evidence your 12 weeks engagement) – this is optional, if not used

A screenshot of a computer

Description automatically generated

**Tasks: Here submit evidence of completing the weekly tutorial as per the instructions in the Module Handbook – Assessment section.**

Note that here you will show screenshots with same key info as above, just evidence that tasks have been completed and process of how it was done, as per specified in the task.

You can copy the task here from the Module handbook and provide your solution below, for each task.

**SOLUTIONS:**

**Task 1 – Extended Entity-Relationship Model**

**Holiday Package**

Each holiday package is provided for a certain number of customers. Each holiday package is categorised as being of a specific type e.g. Beach, Winter Sun, Skiing and Adventure, each of which have specific, unique requirements. Each package will fall into one of two journey types, either

* Return flight to a single destination
* Return coach transport with two destinations.

Holidays may have a courier, although some do not.

Where group bookings are made the company needs to record information about the member of the group who is the Group leader; i.e. the arranger of the holiday.

Step 1: Underline all nouns in the text above and list them below:

All the nouns in the question are mentioned below:

* Holiday Package
* Customers
* Type
* Beach
* Winter Sun
* Skiing
* Adventure
* Requirements
* Journey Types
* Destination
* Return Flight
* Return Coach Transport
* Single
* Two
* Courier
* Group Bookings
* Company
* Information
* Group
* Group Leader
* Arranger

Step 2: Ask yourself - Is your noun

* an attribute of an entity, or
* an occurrence of an attribute or
* an entity, which would have more than ONE occurrences and is it relevant to our system (case study)?

Identifying the nouns below:

* Holiday Package: It is an entity which consists of list of offers regarding the holiday.
* Customers: It is an entity consisting of people details who books the holiday package.
* Type: It is an attribute of Holiday Package entity having specific type of holiday package they are offering.
* Beach: It is an occurrence of the attribute Type in Holiday Package entity.
* Winter Sun: It is an occurrence of the attribute Type in Holiday Package entity.
* Skiing: It is an occurrence of the attribute Type in Holiday Package entity.
* Adventure: It is an occurrence of the attribute Type in Holiday Package entity.
* Requirements: It is an attribute of the Holiday Package entity carrying the unique features for the occurrence of the Type attribute.
* Journey Types: It is an attribute of the Holiday Package entity consist of 2 elements defining the type of transport for the holiday.
* Destination: It is an attribute of Holiday Package entity.
* Return Flight: It is an occurrence of the attribute Journey Types.
* Return Coach Transport: It is an occurrence of the attribute Journey Types.
* Single: It is an occurrence of the Destination attribute.
* Two: It is an occurrence of the Destination attribute.
* Courier: It is an entity which consists of data such as its id, its sender and destination, and its availability in the Holiday package exists or not.
* Bookings: It is an entity consist of the data about the holiday bookings done by people.
* Group: It is an occurrence falling in the attribute of Booking Type of the entity Bookings.
* Company: It is an occurrence falling in the attribute of Booking Type of the entity Bookings.
* Information: It is an occurrence falling in the attribute of Booking Description of the entity Bookings.
* Group Leader: It is an occurrence falling in the attribute of Travel Organizer of the entity Bookings.
* Arranger: Similar to Group Leader it is also an occurrence falling in the attribute of Travel Organizer of the entity Bookings.

Step 3: For each entity create a table to defining attributes and occurrences.

Holiday Package

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Attribute’s Name | Package\_id | Package\_Name | Holiday\_  Type | Requirements | Journey\_Type | Destination | Customer\_id |
| Occurrences | 12 | Snow Fun | Skiing | Age above 10 years | Return Flight | Maldives | 54 |
| Occurrences | 98 | Hot Sun and Cool Sea | Beach | Proper swimwear | Return Coach Transport | Canada | 76 |

Customers

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Attribute’s Name | Customer\_id | Customer\_Name | Address | Contact\_No | Package\_id | Booking\_id |
| Occurrences | 54 | Smith Johns | Boston | 9745126370 | 12 | 1 |
| Occurrences | 76 | Belle Hermes | Dallas | 9374105724 | 98 | 2 |

Courier

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Attribute’s Name | Courier\_id | Sender\_Name | Receiver\_Name | Destination\_Address | Destination\_Contact\_no | Customer\_id |
| Occurrences | 10 | Herone | Nidhong | 456 Elm Street, Suite 3, Los Angeles, CA 90001, USA | 9745126370 | 54 |
| Occurrences | 20 | Maezu | Nikki | 132, My Street, Big town BG23 4YZss, England | 9374105724 | 76 |

Bookings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Attribute’s Name | Booking\_id | Booking\_Date | Booking\_Type | Customer\_id | Package\_id | Payment\_Way | Booking\_Description |
| Occurrences | 1 | 23 Dec, 2024 | Company | 54 | 12 | Visa card | 20 people in total |
| Occurrences | 2 | 15 June, 2025 | Group | 76 | 98 | Cash | 10 people in total |