CSE 5335
Web Data Management
Understanding of the Project

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The Lean delegates, 3rd party foundations and the Individual users are three of the most important components of this project.

All three can sign up for an account on the website. The lean delegates are required to have an account. Also, anyone who wants to take part in the events organized by Lean needs to sign up for an account. The sign-up details such as the email, password, date, month, year of sign up are stored in the data base. Anyone can sign up only once for the account on the website using one email address. Related information is stored in the *account table* of the relational schema.

The lean delegate will require to log in at least once, while the other two categories can even go without logging in ever. Also, anyone can login how many ever number of times they want to. The log details for the login such as date, month, year, hour, min, sec is stored in the data base. These log details for a login by a user(any of the three categories) is a multi-valued attribute in the schema as a person can login any number of times. All this related information is stored in the *login_details relation* of the schema.

The account information for every user(any of the three categories) such as the A_ID, type; individual user, lean delegate and 3rd party foundation is stored in the *account table* of the relational schema. The privileges assigned to the account based on it's type are described in the *privileges_assigned table* of the schema. Since, there could be multiple privileges for an account based on it's type, it is a multivalued attribute.

The individual users have the least authority in terms of what they can view on the site, for e.g. the events they register for, the tickets that they buy, the event they sponsor, the items they have donated at an event, the receipt of the tax benefits they can have by that donation, blogs they write. The U_ID, First and last name of the individual user is stored in the *individual user* table of the schema.

The 3rd party Foundations have a little more liberty in terms of what they can view on the site. Besides the liberty allowed to the individual users, the 3rd party Foundations can view the percentage allocated to them in the cost of every ticket they sell for Lean. While registering for an event only a percent of the foundation members is registered which is decided by Lean and that can be viewed by them on the site. The details such as F_ID, name of the foundation are stored in the *3rd_party_foundation table* of the schema.

The Lean delegates have the highest privileges assigned to them, besides all the viewing liberty allowed to other two categories, they can view and control all the content posted on the site related to events, blogs, organize the sponsors etc. and handle all the accounts on the website as well, could be any of the three categories. The details such as LD_ID, first and last name are stored in the *lean_delegate table* of the schema.

All three are also allowed to write blogs on the site related to events organized, general topics etc. The blog specific information such as B_ID is stored in the *blog table* of the schema. The details related to a blog such as topic, date, month, year are captured in the data base. These details could be multiple for any user; therefore it is a multi-valued information stored in the *write_details table* of the schema. Anyone can write any number of blogs on the site. These details for a blog and the author are stored in the *writes table* of the relational schema.

The individual users or the 3rd party foundations can sponsor the events organized by Lean. Both can sponsor as many events they want but the event being organized requires a minimum of 1 sponsor and can have any number of sponsors as well. The information related to the event and the corresponding sponsors is stored in the *sponsors table* of the relational schema.

Events are organized by Lean for the purpose of collecting medicine, money and clothes etc. to be sent to the needful in several countries. There are two types of events, either paid or free. The details such as E_ID, name, venue, date, month, year, duration, type is captured in the data base for events. All this information is stored in the *event table* of the relational schema.

Both the 3rd party foundations and individual user can donate items they wish to at an event. The details of which person donated at what event are stored in the *donated tables* of the schema. Any person can donate any number of items to any number of events. The details including the description and quantity details of the item donated are stored in the *donated_item_details* table of the relational schema. For every donation made, the corresponding user (foundation or an individual user) incurs some tax benefits. The details of the tax benefit incurred which the includes the description, month, year are stored in the *donated_tax_benefits* table of the relational schema. The details stored in both the tables mentioned above are multivalued because of many to many relationship.

The items collected at an event have associated details such as description, quantity captured in the data base. Many items can be collected at an event, also one item can be collected at many events as well. These details are captured in the *collected_details* table of the relational schema. This is a many to many relationship, this is a multivalued information. Also, the details of which item was collected which event is stored in the *collected table* of the schema.

Items have different types such as medicine, clothes and money being captured in the data base. The information such as I_ID, type is stored in the *item table* of the schema.

These items such as medicine and clothes are also shipped to needful people in different countries around the world captured in the data base. The details such as date, month, year, description of the item and cost required to ship is also captured in the data base. Many items can be shipped to many countries. As this is a many to many relationship, these details are multi-valued. This information is stored in the *shipped_details table* in the relational schema. The information regarding which item is shipped to which is country is stored in the *shipped table* in the relational schema. The details about the country such as name are stored in the *country table* of the relational schema.

The tickets are sold for events which are paid. An event can have many tickets sold for it. Details for tickets such as T_ID and cost are stored in the *tickets table* of the relational schema.

The tickets are sold by either Lean Delegates or the 3rd party foundations. Both can sell any number of tickets they want to or are assigned to. For every ticket sold by 3rd party foundations a specific % in the

cost of the ticket is assigned to them. All the related data is captured in the database. This information is stored in the *sell table* of the relational schema which also includes details about who sold which ticket.

These tickets are bought by either individual users or the 3rd party foundations for the events which are paid. Both can buy any number of tickets they want to. The method of payment includes PayPal, credit cards and debit cards. All the related information regarding the sold tickets are captured in the data base. The details such as no of tickets purchased, method of payment, who bought which ticket are stored in the *buys table* of the relational schema.

The individual users or the 3rd party foundations can register for events which are either free or paid. Both the 3rd party foundations as well as individual users can register for as many numbers of events they wish for. Also, an event can have any number of individual users or foundation people registering for an event. *Caveat*: For a foundation only a specific % of people are registered for the event by the Lean delegates. All this relevant information is captured in the database. This information is stored in the *registers table* of the relational schema.

Snapshots of the DB:

Relations in the Database

Individual user

```
SQL> select* from individual_user;

      U_ID
----------
FIRST_NAME
--------------------------------------------------------------------------------
LAST_NAME
--------------------------------------------------------------------------------
         1
Sagar
Sharma

         2
Abhishek
Bussa

      U_ID
----------
FIRST_NAME
--------------------------------------------------------------------------------
LAST_NAME
--------------------------------------------------------------------------------

         3
Avanish
Vyas

         4
Jesus
```

foundation

```
SQL> select * from foundation;

      F_ID
----------
NAME
--------------------------------------------------------------------------------
         1
CapitalOne

         2
CharlesandShcwab

         3
Wunderman


      F_ID
----------
NAME
--------------------------------------------------------------------------------
         4
Statefarms

         5
Mackenzy
```

Lean delegate

```
SQL> select * from lean_delegate;

     LD_ID
----------
L_FIRST_NAME
--------------------------------------------------------------------------------
L_LAST_NAME
--------------------------------------------------------------------------------
         1
Sharma
Chakravarthy

         2
David
Levine

     LD_ID
----------
L_FIRST_NAME
--------------------------------------------------------------------------------
L_LAST_NAME
--------------------------------------------------------------------------------

         3
Farhad
Kamanger

         4
Elizabeth

     LD_ID
----------
L_FIRST_NAME
--------------------------------------------------------------------------------
L_LAST_NAME
--------------------------------------------------------------------------------
```

event

```
NAME
--------------------------------------------------------
VENUE
--------------------------------------------------------
       DAY      MONTH       YEAR
---------- ---------- ----------
DURATION
--------------------------------------------------------
         1
FREE
BASH
DETRIOT
        12          1       2018
8_HOURS

         2
PAID
TED-TALK
CHICAGO
        30          1       2018
5_HOURS

         3
FREE
PAINT-PARTY
NEW_YORK
        15          2       2018
5_HOURS

         4
PAID
CONCERT
DALLAS
        13          4       2018
10_HOURS
```

registers

```
SQL>
SQL>
SQL> select * from registers;

      E_ID       U_ID       F_ID P_REGISTERED
---------- ---------- ---------- -------------
         1                     1            10
         2          1
         3                     2            20
         4          2
         5                     3            30
```

Shipped

```
SQL> select * from shipped;

      I_ID
----------
CNAME
--------------------------------------------------------------------------------
         1
INDIA

         2
NEPAL

         3
AUSTRALIA
```

Shipped details

```
----------
CNAME
--------------------------------------------------
       DAY      MONTH       YEAR
---------- ---------- ----------
DESCRIPTION
--------------------------------------------------
SHIPPING_COST
--------------------------------------------------
QUANTITY
--------------------------------------------------
         1
INDIA
        12          1       2015
MEDICINE T10
$200
100 PACKS

         2
NEPAL
        20          5       2016
MEDICINE T100
$400
1000 PACKS

         3
AUSTRALIA
         4          7       2018
JEANS AND OVERCOATS
$2000
100 PAIRS
```

Sell

```
SQL>
SQL> select
  2  8
  3
SQL> select * from sell;

    LD_ID       F_ID       T_ID P_ASSIGNED
--------- ---------- ---------- ----------
        1                     1
                  1          2          2
        2                     3
```

Tickets

```
SQL> select  * from tickets;

     T_ID       E_ID
--------- ----------
COST
--------------------------------------------------------
        1          2
$20

        2          4
$10
```

Buys

```
SQL> select * from buys;

     F_ID       U_ID       T_ID
--------- ---------- ----------
METHOD_OF_PAYMENT
--------------------------------------------------------
NO_OF_TICKETS
-------------
                  1          1
CREDIT
         110

        2                     2
DEBIT
         150

                  2          2
PAYPAL
          90

        3                     3
PAYPAL
          70
```

Donated

```
SQL> select * from donated;

     F_ID       U_ID       E_ID
--------- ---------- ----------
        1                     1
                  1           2
        2                     3
                  2           4
```

Donated details

```
SQL> select * from donated_item_details;

     F_ID       U_ID       E_ID
--------- ---------- ----------
DESCRIPTION
------------------------------------------------------------
QUANTITY
------------------------------------------------------------
        1                     2
MEDICINE T10
10 PACKS

                  1           2
MEDICINE T30
30 PACKS

        2                     4
CLOTHES JEANS
10 PIECES

                  2           4
MONEY
$1000

        3                     5
MONEY
$10000
```

Donated_tax_benefits

```
SQL> select * from donated_tax_benefits;

      F_ID       U_ID       E_ID
---------- ---------- ----------
DESCRIPTION
--------------------------------------------------------------------
     MONTH       YEAR
---------- ----------
         1                    1
GET 10% BACK
         1       2018

                     1          2
GET 20% BACK
         1       2018

         2                    3
GET 40% BACK
         4       2018

                     2          4
GET 30% BACK
         4       2018

         3                    5
GET 10% BACK
         9       2018
```

Account

```
SQL> select * from account;

      A_ID      LD_ID       U_ID       F_ID
---------- ---------- ---------- ----------
TYPE
--------------------------------------------------------------------------------
EMAIL
--------------------------------------------------------------------------------
PASSWORD
--------------------------------------------------------------------------------
       DAY      MONTH       YEAR
---------- ---------- ----------
         1          1
DELEGATE
D1@LEAN.COM
APPLES
         2          5       2001

         2                     3
INDIE USER
I1@GMAIL.COM
ORANGES
        10          5       2014

         3                                2
3RD PARTY FOUNDATION
F1@LEAN.COM
```

Login details

```
SQL> select * from login_details;

      A_ID      LD_ID       U_ID       F_ID        DAY      MONTH       YEAR
---------- ---------- ---------- ---------- ---------- ---------- ----------
      HOUR     MINUTE     SECOND
---------- ---------- ----------
         1          1                              4          5       2001
        21         45         56

         2                     3                    7         10       2015
         9         44         57

         3                               2          6          3       2012
         4         15         54

         4          2                             15          4       2013
         9         49         50
```

Privileges assigned

```
SQL> select * from privileges_Assigned;

      A_ID      LD_ID       U_ID       F_ID
---------- ---------- ---------- ----------
PRIVILEGES_ASSIGNED
--------------------------------------------------------------------------------
         1          1
MODERATE BLOGS, CREATE EVENTS

         2                     3
REGISTER FOR EVENT, SPONSOR EVENT

         3                               2
SELL TICKETS, REGISTER FOR EVENT

         4          2
MANAGE ACCOUNTS ON SITE, DEAL WITH 3RD PARTY FOUNDATION
```

Blog

```
SQL> select * from blog;

      B_ID      LD_ID       U_ID       F_ID
---------- ---------- ---------- ----------
         1          1
         2                     1
         3                               1
         4                     2
         5          4
```

Writes

```
SQL> select * from writes;

      B_ID      LD_ID       U_ID       F_ID
---------- ---------- ---------- ----------
         1          1
         2                     1
         3                                1
         4                     2
         5          4
```

Writes_details

```
SQL> select* from writes_details;

      B_ID      LD_ID       U_ID       F_ID
---------- ---------- ---------- ----------
TOPIC
--------------------------------------------------
       DAY      MONTH       YEAR
---------- ---------- ----------
         1          1
SOCIETY
         2          4       2018

         2                     1
ANIMALS
         4          5       2018

         3                                1
CHILDREN
        19          5       2018

         4                     2
HEALTHCARE
         7         12       2018

         5          4
CREATIVITY
         9          1       2018
```

sponsor

```
SQL> select * from sponsor;

      E_ID       U_ID       F_ID
---------- ---------- ----------
         1          1
         2                     1
         3          2          2
         4          3
         5          4          5
```

Country

```
SQL> select * from country;

CNAME
--------------------------------------------------
AUSTRALIA
CHINA
INDIA
NEPAL
SRI-LANKA
```

item

```
SQL> select * from item;

      I_ID
----------
TYPE
--------------------------------------------------
         1
MONEY

         2
MEDICINE

         3
CLOTHES
```

Collected

```
SQL> select * from collected;

      I_ID       E_ID
---------- ----------
         2          1
         2          2
         3          3
         1          4
         1          5
```

Collected_details

```
SQL> select * from collected_details;

      I_ID       E_ID
---------- ----------
DESCRIPTION
--------------------------------------------------
QUANTITY
--------------------------------------------------
         2          2
MEDICINE T10
10 PACKS

         2          2
MEDICINE T30
30 PACKS

         3          4
CLOTHES JEANS
10 PIECES

         1          4
MONEY
$1000

         1          5
MONEY
$10000
```