

UNDERSTANDING OF THE PROJECT

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The main purpose of this project is to bring these immigrants who have left their countries due to various reasons, so they will be able to share their experience, culture, meet virtually and share songs, recipes, nostalgia, etc. Also, the immigrants who have already been here for a while can share rules and laws of country, share tips, share information about places to visit, restaurants, museums, views, etc. The super admin, admin per country, and immigrants are three most critical components of this project.

At first all the categorized users can sign up for the account. For signing up, basic information such as username, password, last name, first name, date of birth, phone number, email, country, and role will be required. Additional information such as reason for leaving, previous country is needed if immigrant option is selected as role. The entered information for signup will be verified first, and then it is stored in database. After verification, the user can login to website. Based on role, they will see different graphical user interface with different categories of information and task. The account information of user is stored in User table as shown in Entity Relationship Diagram.

Multiple tables will be created in database as shown in schema diagram which is used to stores records for each category in corresponding tables. Each table has corresponding id as primary key. Primary key can be used to uniquely identify each records/row in the corresponding table. Other schema objects such as name, reason description, etc. will be included as shown in schema diagram. Foreign key will be used to link multiple tables so that required information can be gathered from multiple tables without explicitly defining same information in each table preventing duplication of data.

Once super admin logins, he will be able to create masters table such as continents, countries, categories for leaving, contributions, schools, hospitals, and place to visit and manage some of these table such as continents, countries, and cities. He can also develop generic report about continents, countries, immigrants by countries, visitors by continents and countries, schools, hospitals, place to visit, and number of visitors visiting the places for site seeing. As shown in schema diagram the records about countries, continents, city, schools, hospitals, and place to visits will be stored in corresponding tables. He will also have special privilege to manage country admins and request IT help for technical issues.

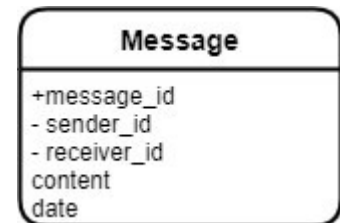
Admin per country will oversee creation and management of all the tables for a country. Once admin logins, he can see a GUI with various categories such as manage country categories for leaving, contributions, schools, hospitals, places to visit. He will also be able to have the same privilege as super admin to generate generic reports.

Immigrant will be responsible for registering immigrants. Once immigrant logs in, he will see a menu with options such as tips, contribution, upload pictures, upload videos, and join a chat. He will be able to share tips, contribute to some social cause, upload pictures & videos, and join a

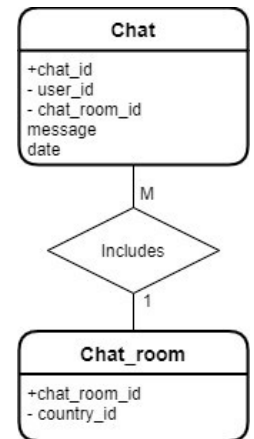
chat with other immigrants. As shown in schema diagram shared tips will be stored in tips table, contributions in contribution table, uploaded videos in video table, uploaded pictures in pictures table, and chats in chat table. Each table will have their corresponding id as primary key and post_id as foreign key which links to post_id table except for chat table which will have user_id and country_id as foreign key that links to the user and country table. Post id table will contain post_id as primary key, user_id as foreign key which will link all information from post table to user table which include all the required records/information of user that has engaged in above activities.

Visitors can also login to this site. After logging in, visitors will be able to see dashboard which will provide options to add tips, upload pictures & videos and chat with other immigrants/visitors.

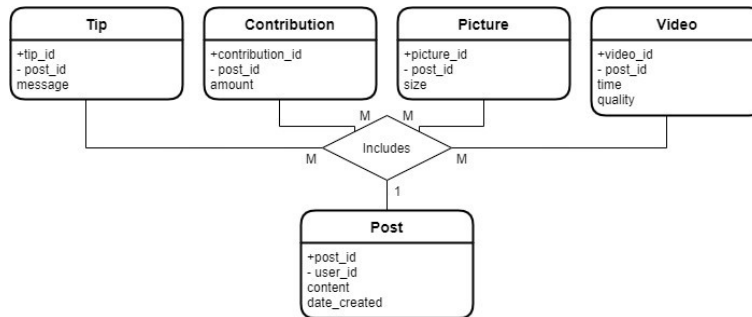
There are two communications functions available to users. These functions are available to any user logged into the site (immigrant, visitor, or even admins). First, a private message function allows users to send messages or conversations with other specific users of the website. The “message” table holds the contents of these messages, and each record is associated only with the two users in the conversation: the sender and the receiver.



There is also a more open chat feature that facilitates conversation between all immigrants or visitors within a country. After logging into the website, a visitor can click the “chat” button to view and participate in an open conversation for their assigned country. In this case the “chat_room” table in the database acts as an anchor for all the conversations within a given country (see figure to the right). Then, any chat messages are posted to the “chat” database table, and linked to the chat_room using a Foreign Key.



In our project, when an immigrant logs in, they will be able to post things like pictures, videos, tips for other immigrants and contributions to help them out. For this, in our Entity Relationship Diagram, we created an entity called “Post” which has a direct relationship with other sub entities – Tip, Contribution, Picture, and Video. Since there can be multiple of these per post, they have a one-to-many relationship. All the sub entities have a primary key of their own and a foreign key, which is the post_id, so that they are linked to certain posts.



Also, a user can do both create and manage posts. The immigrants can create a post to share their experience with other immigrants, and visitors can view these posts. The admins will be able to manage things like posts that have contributions.