

Survey System Tool Documentation

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(a) Overview

1. About Survey System Tool

Survey System Tool is a next generation web-based data capturing application that has multiple uses and can be used as a building block for different projects. It facilitates the process of making a survey, sharing the survey using multiple channels, capturing responses of multiple types from different users, viewing the responses internally, storing the data on a database and download the responses on an external file. This system is robust and expandable that it can be modified to be used to capture different forms of data instead of surveys. The Survey Tool contains immense options for researchers to choose from allowing them to get specific information of different forms about participants. Its flexible enough that people with minimal technology experience will be able to use it effectively.

2. About Survey System Tool Environments

Survey System Tool was developed using Laravel framework with bootstrap and other supporting technologies. Relational database using a Database Management System such as MySQL, SQL Server, PostgreSQL will be required to use the system. Knowledge in Github is required to be able to run the system on any machine.

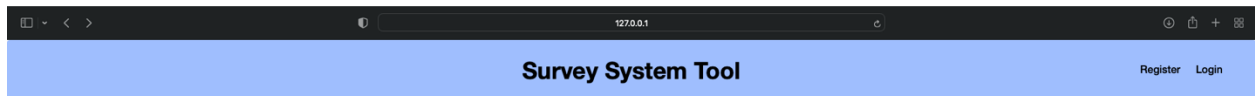
3. Install/Initialize

Survey System Tool can be run on any operating system Windows, Mac or Linux. Currently, it will require cloning the latest version of the project from Github, connecting the system to a local Database, and running the current version on localhost. Follow the following steps:

- 1) Confirm the project's ownership
- 2) Clone the project to your local machine
- 3) Using a DBMS such as MySQL, create a new empty SQL database.
- 4) Note down the name of the database just created, the username, and your SQL password (if any)
- 5) On your cloned project, go to the environment file (.env) file.
- 6) Fill in your DB_CONNECTION information, then your DB_HOST which will be localhost to start with, then fill in the name of the database created in step 3 in DB_DATABASE, then your username in DB_USERNAME, then your password in DB_PASSWORD if any. (If you don't have a password, leave it blank)
- 7) Go to the configurations file (config) where you will see a number of (.php) files
- 8) Choose the database file namely (database.php) file
- 9) Navigate to 'connections' => then fill in the information similar to step 6 according to your DB, so navigate to 'mysql' if that's what you will be using.
- 10) Once you've established the connection between the database and the project; now, its time to migrate.
- 11) Using the Terminal use the following command to Migrate for the first time
 - a. php artisan migrate
- 12) This will migrate the tables information found in database->migrations folders to the local DBMS

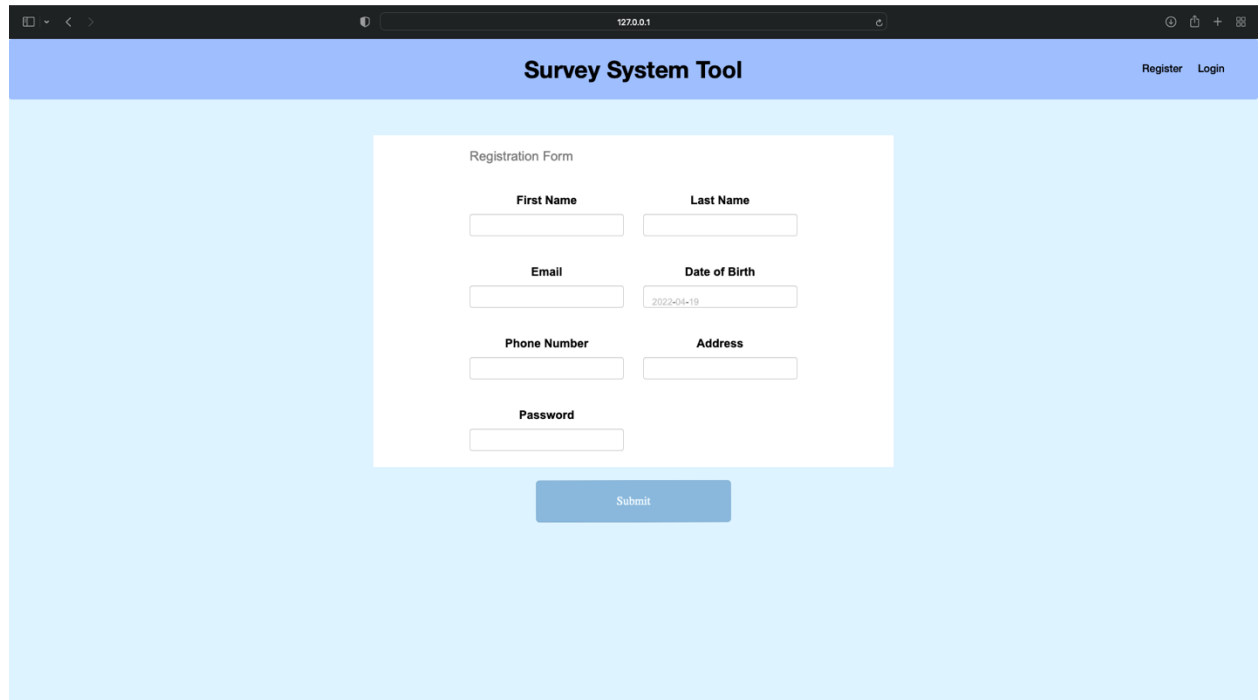
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- 13) Check your database locally to confirm the tables have been migrated.
- 14) If you can't see the files, recheck your .env file and your config folder and use the command: `php artisan migrate:fresh`
- 15) Check your database locally to confirm the tables have been migrated.
- 16) Once your database connection is established, now, it's time to run the system on your localhost.
- 17) Use the command: `php artisan serve`
- 18) This will generate a link of localhost:port, copy that link and paste it in a browser to view the Survey System Tool.
- 19) The page will look like the following:



4. Register

- 1) Click on Register
- 2) The page will look like:

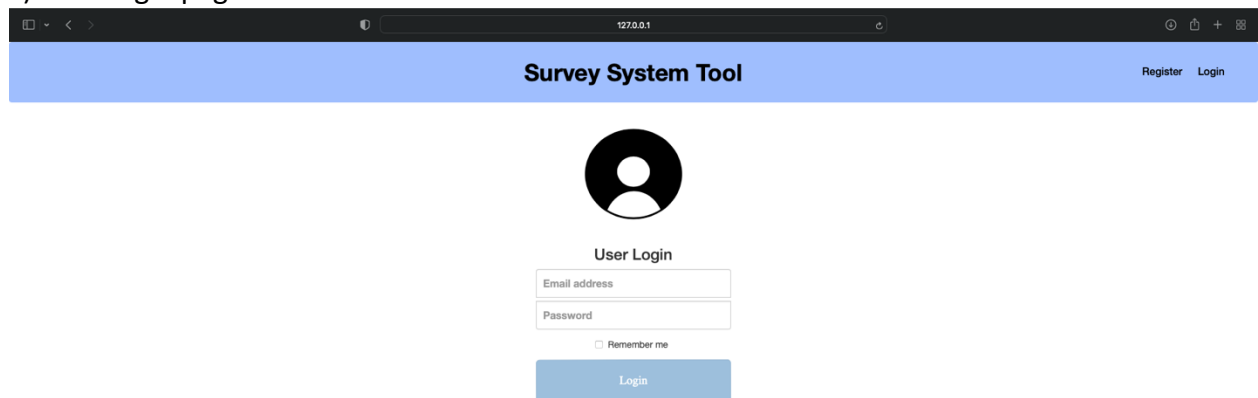


The screenshot shows a web browser window with the address bar displaying '127.0.0.1'. The page has a blue header with the text 'Survey System Tool' and links for 'Register' and 'Login'. The main content area is light blue and contains a white 'Registration Form'. The form has the following fields: 'First Name', 'Last Name', 'Email', 'Date of Birth' (with a date picker showing '2023-04-19'), 'Phone Number', 'Address', and 'Password'. A blue 'Submit' button is located below the form.

- 3) Fill in your new account information
- 4) Click Submit, it will take you to a login page

5. Login

- 1) The login page will look like this:



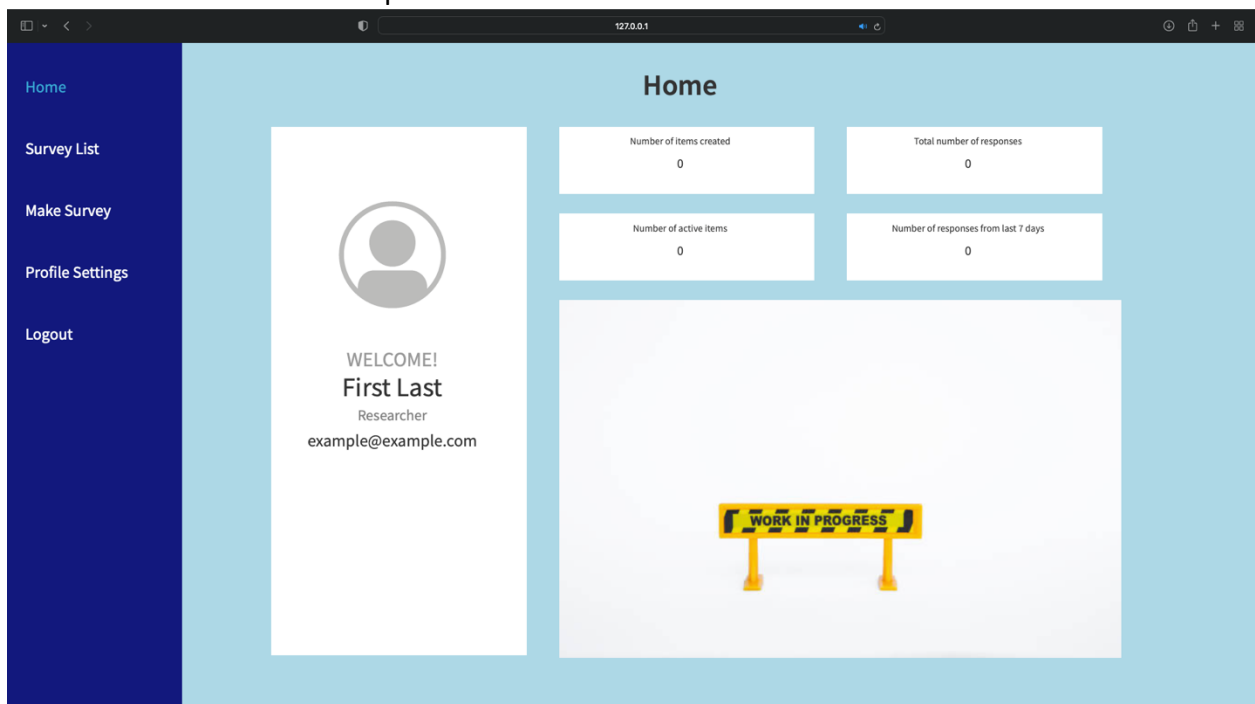
The screenshot shows a web browser window with the address bar displaying '127.0.0.1'. The page has a blue header with the text 'Survey System Tool' and links for 'Register' and 'Login'. The main content area is white and features a black circular user icon at the top. Below the icon is the text 'User Login'. The login form includes fields for 'Email address' and 'Password', a 'Remember me' checkbox, and a blue 'Login' button.

- 2) Fill in the information for the account just created.
- 3) Click login to access account privileges.

(b)Tutorials

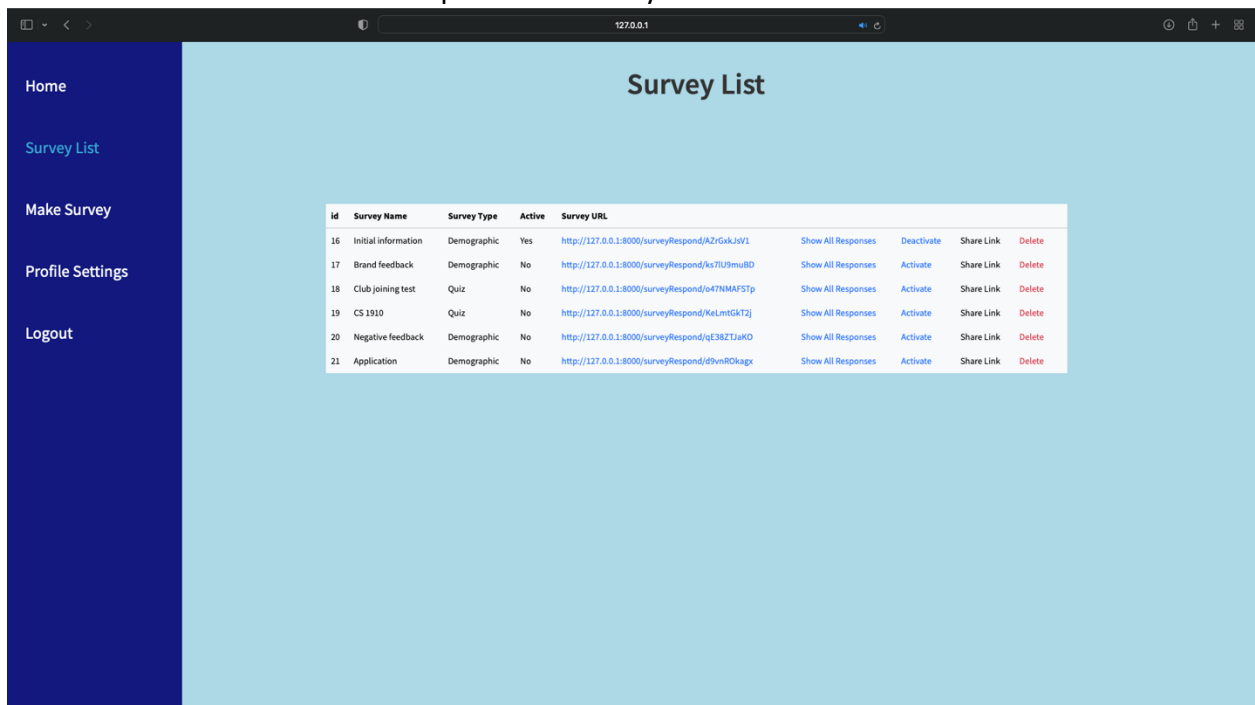
6. View your statistics and any updates

- 1) After logging in to your account.
- 2) The home page ie (localhost:port/home) will be an overview of your information namely
 - a. Name and email
 - b. Number of items created
 - c. Total number of responses
 - d. Number of active items
 - e. Number of responses from last week



7. View your latest added surveys

- 1) Using the navigation side bar click on Survey List
- 2) This will take you to (localhost:port/survey-list)
- 3) This will give you a table containing the list of all previously made surveys
- 4) Titles of this table include the id of each survey, survey name, survey type, status of whether its active or inactive, survey URL and options to apply on each survey
- 5) Options include
 - a. Clicking on a link to view how it looks like from the participant's point of view.
 - b. Button to show all responses from participants internally
 - c. Button to change the status of a survey so activate and deactivate
 - d. Button to share a particular survey
 - e. Button to delete a particular survey



id	Survey Name	Survey Type	Active	Survey URL	Show All Responses	Activate/Deactivate	Share Link	Delete
16	Initial information	Demographic	Yes	http://127.0.0.1:8000/surveyResponse/AZGskJ0V1	Show All Responses	Deactivate	Share Link	Delete
17	Brand feedback	Demographic	No	http://127.0.0.1:8000/surveyResponse/ks7U9mu8D	Show All Responses	Activate	Share Link	Delete
18	Club joining test	Quiz	No	http://127.0.0.1:8000/surveyResponse/q47NMAF5Tp	Show All Responses	Activate	Share Link	Delete
19	CS 1910	Quiz	No	http://127.0.0.1:8000/surveyResponse/KoLmtGATj	Show All Responses	Activate	Share Link	Delete
20	Negative feedback	Demographic	No	http://127.0.0.1:8000/surveyResponse/qE38ZTJaKO	Show All Responses	Activate	Share Link	Delete
21	Application	Demographic	No	http://127.0.0.1:8000/surveyResponse/d9vnr0Kagx	Show All Responses	Activate	Share Link	Delete

8. View your surveys responses

- 1) While you're in the survey responses page
- 2) Using the table previously mentioned, choose any of the surveys you made
- 3) Click on Show All Responses
- 4) This will take you to (localhost:port/responses/surveyID)
- 5) Here you can see all the responses for each question internally in the system.
- 6) You'll also be able to see the date and time each response was made.
- 7) On top, you'll have two buttons, one to Go Back and one to Export all responses

Here is a sample response page:

Responses		
Question: First Name		
Response	Submitted by	Response Type
James	2022-04-11 01:28:44	text
Michael	2022-04-11 01:32:52	text
Sam	2022-04-11 01:34:22	text
Tim	2022-04-11 01:47:59	text
Daniel	2022-04-11 01:51:44	text
Harry	2022-04-11 01:52:22	text
Anthony	2022-04-11 01:54:06	text
Mary	2022-04-11 01:54:44	text
Andrew	2022-04-11 01:55:27	text
Tanner	2022-04-11 01:56:26	text
James	2022-04-11 15:15:09	text

Question: Last Name		
Response	Submitted by	Response Type
Wilson	2022-04-11 01:28:44	text
Smith	2022-04-11 01:32:52	text
Shiah	2022-04-11 01:34:22	text
Gallant	2022-04-11 01:47:59	text
Perisa	2022-04-11 01:51:44	text
Peina	2022-04-11 01:52:22	text
MacDonald	2022-04-11 01:54:06	text
Pound	2022-04-11 01:54:44	text

9. Export Survey Responses as CSV

- 1) Once you're in the response page of a particular survey
- 2) Click on Export button
- 3) This will gather the information and download an excel file that will contain the questions and responses
- 4) Each question will be shown once as the headers of columns
- 5) Responses for each question will be shown as a list under each question
- 6) This will allow you to analyze the data through Excel

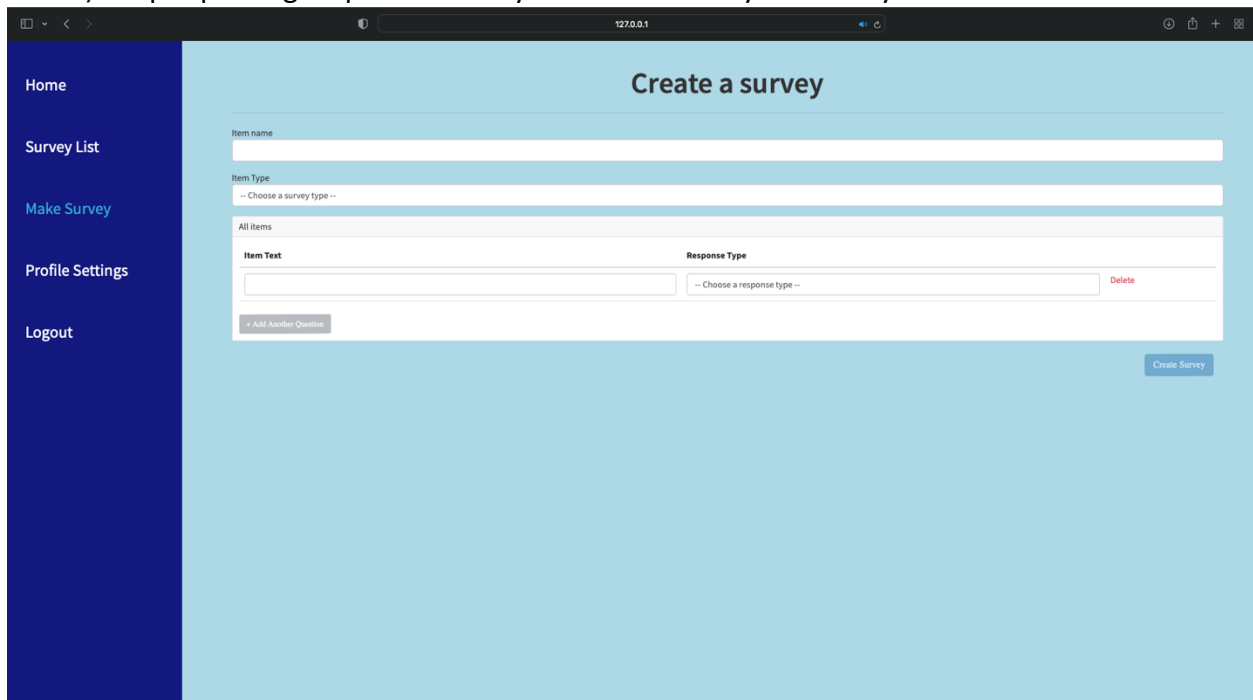
10. Share a previously made survey

- 1) Using the navigation side bar, navigate to Survey List
- 2) Choose a particular survey you want to share using the table
- 3) Click on Share link
- 4) This will take you to a page (localhost:port/sharelink/surveyID)

- 5) Choose the channel you want to share the survey through ie facebook, twitter, whatsapp, email or click on copy the link.

11. Create a survey

- 1) Using the side navigation bar navigate to Make Survey
- 2) This will take you to localhost:port/make-survey page
- 3) Fill in the name of the survey you want to make
- 4) Choose the survey type ie Demographic or Quiz
- 5) Fill in the item text
- 6) Choose the Responses Type for your item, options include
 - a. Numerical Response
 - b. Text Response
 - c. Multiple Choice
- 7) Clicking on Multiple Choice, prompts you to fill in more information
- 8) Fill in the first option
- 9) If you require to add more options, click on the button +Add Another Option
- 10) Once you're done filling in your options. If you need to add another item, click on the button +Add Another Question
- 11) Keep repeating steps 5-10 until you're done with your survey

A screenshot of a web browser showing the 'Create a survey' form. The browser's address bar shows 'localhost:127.0.0.1'. The page has a dark blue sidebar on the left with links: 'Home', 'Survey List', 'Make Survey' (highlighted in light blue), 'Profile Settings', and 'Logout'. The main content area has a light blue header with the title 'Create a survey'. Below the header, there is a form with the following fields: 'Item name' (a text input), 'Item Type' (a dropdown menu with '-- Choose a survey type --'), and 'All items' (a table). The table has two columns: 'Item Text' and 'Response Type'. The first row in the table has an empty 'Item Text' input and a 'Response Type' dropdown with '-- Choose a response type --'. To the right of the dropdown is a red 'Delete' link. Below the table is a button that says '+ Add Another Question'. At the bottom right of the form is a blue button that says 'Create Survey'.

- 12) Click on the button Create Survey
- 13) This will generate a new survey with the information you chose and will generate a unique link that you can find in Survey List.
- 14) Default option for each new survey is Inactive. To activate it, click on activate in your Survey List
- 15) To share your newly made survey, check Tutorial 5

12. Edit Account Information

- 1) Using the side navigation bar, navigate to Profile Settings
- 2) This will take you to the page (localhost:port/profile-settings)
- 3) Here you can edit your profile information namely:
 - a. First Name
 - b. Last Name
 - c. Email
 - d. Date of Birth
 - e. Phone Number
 - f. Address
- 4) Once the required changes are made, click on the button Update to save your new changes

The screenshot shows a web application interface for editing profile settings. The sidebar on the left contains navigation links: Home, Survey List, Make Survey, Profile Settings (which is the active page), and Logout. The main content area is titled 'Profile Setting' and contains two columns of form fields. The left column includes 'First Name' (with 'First' in the input), 'Email' (with 'example@example.com'), and 'Phone Number' (with '1234567897'). The right column includes 'Last Name' (with 'Last' in the input), 'Date of Birth' (with '1990-01-01'), and 'Address' (with '555 University Avenue Charlottetown PE'). Below these fields is an 'Update' button. At the bottom of the page, there is a 'Change my password' section with three input fields: 'Current Password', 'New Password', and 'Confirm Password', followed by a 'Submit' button.

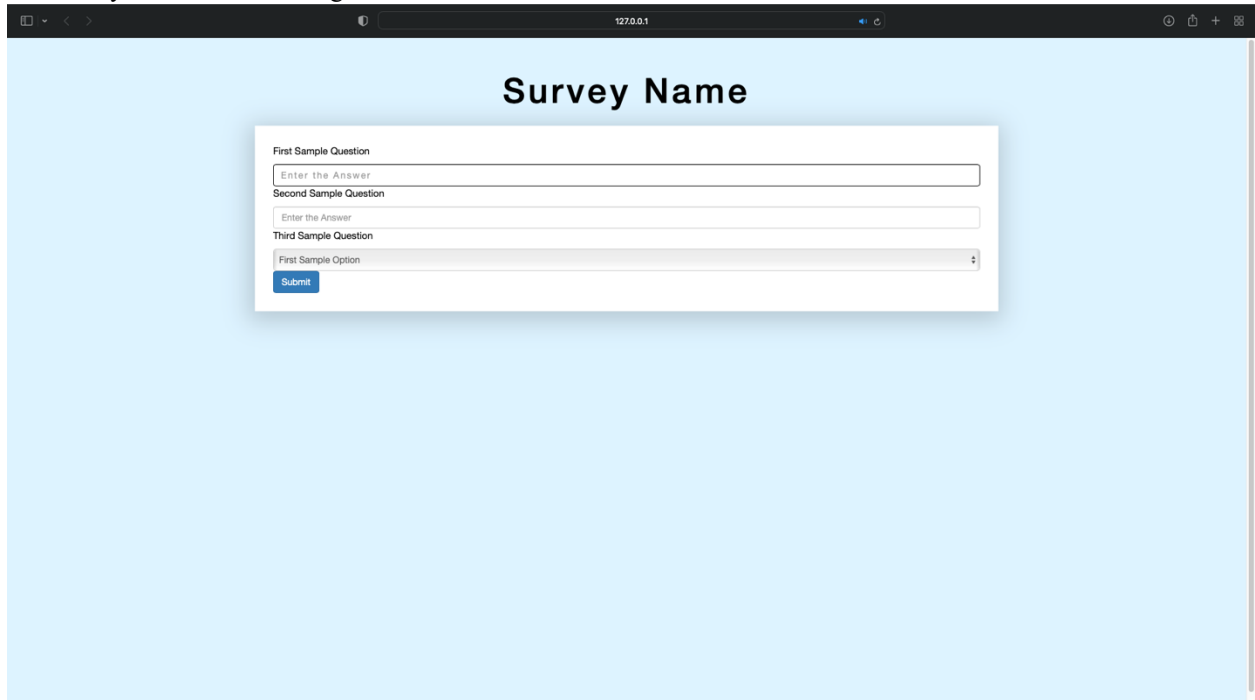
13. Change Password

- 1) In the same page where profile settings are found
- 2) You'll see in the bottom Change my password option
- 3) Type in your current password
- 4) Under new Password, type in your new password and confirm it
- 5) Then click on the button Submit to save your new changes.

14. Respond to a Survey

- 1) Click on the link sent to you by the researcher
- 2) If the survey is active, you will be able to view and respond to the survey
- 3) Fill in your responses where prompted
- 4) Once you're done with responding to the survey click on the button Submit
- 5) This will show you a different page confirming that your response has been saved
- 6) You can close the page now

The survey will look something like:

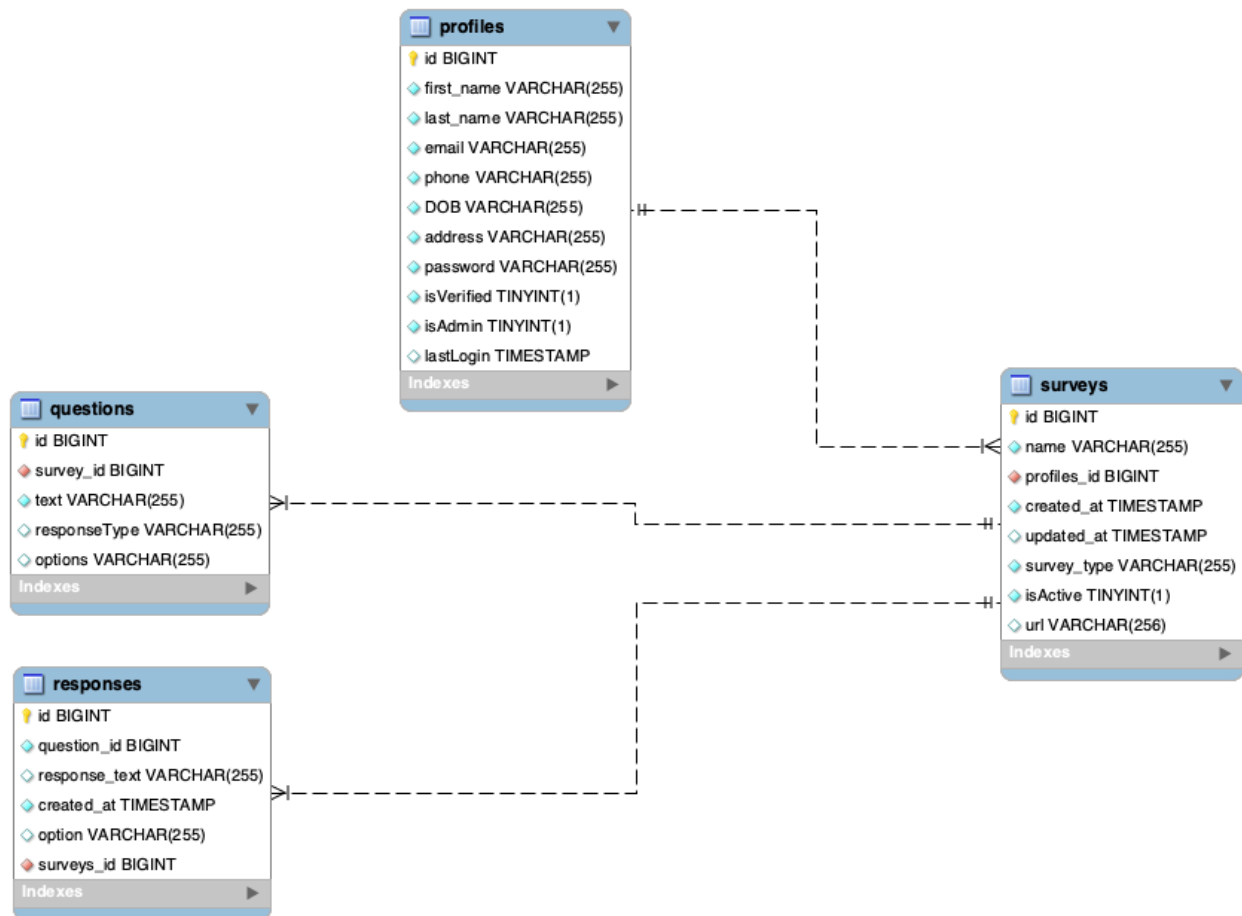


The screenshot shows a web browser window displaying a survey. The browser's address bar shows the URL '127.0.0.1'. The survey page has a light blue background. At the top, the title 'Survey Name' is centered in a large, bold, black font. Below the title, there is a white rectangular form. Inside this form, there are three sections, each with a label and an input field: 'First Sample Question' with 'Enter the Answer', 'Second Sample Question' with 'Enter the Answer', and 'Third Sample Question' with 'First Sample Option'. At the bottom left of the form is a blue button labeled 'Submit'.

Technical References

NOTE: Every file in the repository with major functionalities contains comments before every function explaining in detail what is its functionality.

- 1) Database.
 - a. Information:
 - i. Currently, the database used for the Survey System Tool is a local SQL Database and the steps to connect your machine to your local database have been explained in overview 3
 - ii. Laravel allows the use of other databases, however that would require modifications to the environment and configuration files as previously explained.
 - b. Entity Relationship is made through the use of 4 tables namely Profiles table, Surveys table, Questions table and Responses table.
 - c. Connection between the tables is best described with the use of a diagram:
 - d. Migrations are explained in detail in Overview->Install/Initialize



- 2) Model View Controller Setup
 - a. Information: MVC is a software design pattern commonly used for developing UI that divides the related program logic into 3 interconnected elements namely
 - i. Model
 - ii. View
 - iii. Controller

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- b. We've used this design pattern for our project, an overview of all controllers could be found in the routes-> web.php file
- c. Web.php you can find the routes used either a get or a post function, as well as the controller and the method being called if any. For instance here:

```
Route::get('/home', [HomeController::class, 'index'])->name('home');
```

The route being called is the /home, through the HomeController and the method in the HomeController is 'index' is being called.

- d. Models:
 - i. Models are a part of the MVC specialized in handling data passed between the database and the user interface for example in our code. Models->Question.php will be used to handle the data from the UI such as the 'response_text' where this will later be used to store all the data in the database.
- e. Views:
 - i. Views are the part of the MVC that is used to display data using the model class object.

3) Layouts

a. Information:

- i. You'll also notice that there is an

```
@extends('layout')
```

Found at the top of the Views-> blade files which are the views. This allows 1 layout/template design to be used throughout the blade files

- ii. The layout file can be found in Views->layout.blade.php
- iii. In addition to the @extends ('layout') statement, you might need to add

```
@section('content')
```

Which also adds any content mentioned in the layout file, so the layout file is for the design strictly.