**SURVEYTAP APP**

Summary:

The SurveyTap app is a very simple and small app which lets you conduct surveys on any topic.

There are two modes in the application:

1. Vendor Mode
2. User mode

Vendor Mode:  
Vendor mode requires the authentication and lets the vendor add the questions for the surveys. Also, in the vendor mode, you can view the number of votes cast for each option of every question to get the survey results.

User Mode:  
In the user mode , there is no authentication required and the users will cast their votes for the various questions added by the vendor.

Technical Description:

There are 4 activities/screens in the app:  
1. MainActivity

2. LoginActivity

3. VendorActivity

4. QuestionActivity

MainActivity

This is the launcher activity and is the first screen which appears on app launch.

This is the user mode screen where users can cast their votes for the various questions and submit them. Once submitted, the results get stored in the database (SQLite).

There is a menu button called “LOGIN” which takes you to the login screen

LoginActivity

This is the login screen for the vendor to enter the login details for authentication. To keep the app simple, there is no authentication applied on the details.

VendorActivity

VendorActivity shows you all the questions with their choices and respectives number of votes cast on each of them. To add a question, click on the menu button “ADD QUESTION”.

QuestionActivity

QuestionActivity shows you a form to add the details of a new question.  
Once the question is added, the VendorActivity is shown to display the results.

Design patterns used in the app:  
1. MVC pattern - In MainActivity and VendorActivity, the MVC pattern is used where we set the views (xml) based on the adapter values dynamically.

2. Observer pattern - The button click listeners use observer pattern internally.

3. Singleton pattern - The Database class is a Singleton class to have an unique instance of database throughout the app.

Assumptions while implementing the app:  
1. All the questions will have 4 options.

2. The vendor always have to enter all the 4 choices of the questions while adding them.

3. The UI is kept very simple so as to just show the correct functionality.

4. Do not enter single quote for question or it’s options (not handled as yet).

Improvements/Enhancement that could be made in the production app:

There can be some improvements or enhancements that could be made to make this app dynamic, faster and better:  
1. Calling all the database transactions inside a different thread so that the main UI thread is not affected.

2. An interface for Question can be created. This would allow us to add questions with different number of choices dynamically and inflate respective views in the screen.

Device on which the app was tested:

Samsung Galaxy S5 (SM-G900H)

Android version: 6.0.1