

Poll App DB Schemas and Views

| User | |
|--------------|------------------|
| ID | INT, PRIMARY KEY |
| Google ID | INT, UNIQUE |
| Google Token | INT, UNIQUE |
| Email | STRING, UNIQUE |
| Username | STRING, UNIQUE |
| Date Created | DATETIME |

- Email, Google ID and token retrieved through Google sign-in
- Username provided by user

| Poll | |
|--------------|-------------------------|
| ID | INT, PRIMARY KEY |
| Title | STRING |
| Creator ID | INT, FOREIGN KEY (USER) |
| Active | BOOLEAN |
| Private | BOOLEAN |
| Access Code | INT, UNIQUE |
| Choices | STRING[] |
| Date Created | DATETIME |

- Creator ID to reference user who created poll (User.username)
- Active: true -> ongoing, false -> finished
- Private: true -> access code randomly generated, false -> access code = -1
- Access code: random or -1 based on privacy
- Choices: a string array containing each choice in the poll

| Vote | |
|------------|-------------------------|
| ID | INT, PRIMARY KEY |
| User ID | INT, FOREIGN KEY (USER) |
| Poll ID | INT, FOREIGN KEY (POLL) |
| Choice | STRING |
| Date Voted | DATETIME |

| Poll Result | |
|---------------|------------------|
| ID | INT, PRIMARY KEY |
| Poll ID | INT, FOREIGN KEY |
| Results | INT[] |
| Date Finished | DATETIME |

Poll Creation:

- When *Poll* creation form is submitted, create *Poll Result* using created *Poll*'s ID and a new Results array containing the counts for each choice (0 by default). Indices in results array correspond to the choice in the Choices array whose results they reflect.

Poll Index:

- The voter will have an option to input an access code that directs them to the private poll.
 - No one has access to private polls without the access code (unless they created it).
- The voter will have an option to view public polls whose access code = -1 (no access code).
 - A search function to filter polls through their title fields would work.
 - Another option is adding a keywords array so the search function will filter by title and/or keywords

Poll View:

- Present the user with the *Poll* (title, choices, creator, date created, etc.)
- Once a vote is submitted, create a new *Vote* using the logged in *User*'s ID, the ID of the *Poll*, their selected choice, and the current time.

Results View:

- When a *Vote* is submitted, display the *Poll Result* corresponding to the submitted *Poll*'s ID (lookup based on *Vote.pollID*).