Webmaster Manual

Here is a table of contents for the manual, along with a short description of each section.

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Structure

The "website" effectively works by maintaining and ensuring the health of two interplaying elements:

a. Website codebase

The website source files are files found in the website directory, which can be found by logging on the GoDaddy website and accessing the file directory through cPanel.

b. Firebase database

The other element is the website-specific Firebase database collections. Firebase is a service provided by Google that hosts databases which has pre-exisiting infastructure for read/write abilities on data the website utilizes.

Database collections

There are 7 primary database collections, and they are listed below along with a short functional description.

Collections Breakdown

Collections

a. elections: event-indexed collections of the past and current student body election.
b. polls: event-indexed collections of the past and current funding poll.
c. nominations: dataset array containing nominee-submitted information about each candidate.
d. users_who_have_voted: event-indexed collections of the users who have voted in the funding polls and elections.
e. signatories: semester-dependent collection of all currently approved signators.
f. registered_clubs: semester-dependent collection of all currently registered clubs.
g. fund_requests: semester-dependent collection of all the signator-submitted funding requests.

The database collections may be partioned into two primary subsets. The semester dependent subset and the non-semester dependent subset.

Semester dependent

a. signatories
b. registered_clubs
c. fund_requests

Note: Every semester dependent collection has a subcollections which are named the semester-specific strings. For continuity, please ensure the string takes the form: $[semester] = term\text{-}year$.

Example: The string name for the any semester dependent subcollection for the Fall 2020 semester is [*fall-2020*].

Event-indexed (Non-semester depdendent)

a. elections
b. polls
c. users_who_have_voted
d. nominations

Note: We can also name the non-semester depedent collections the set of event-indexed collections. The reason is because every subcollection in these collections has a name which takes the form:

event-[semester]-SHA32id

1. The event is a two letter index of whether the event is a funding poll (fp) or an SB election (se).
2. The semester is simply the string as explained above, as follows: $[semester] = term\text{-}year$.
3. Lastly, the SHA32 index is simply a random SHA32 hash that uniquely identifies every (semester, event) pair.

Example: The funding poll happening in Fall 2020 with a SHA32 ID of ABC will be: *fp-fall-2020-ABC*.

For continuity, please ensure every event-indexed collection has subcollection names which take the form: *event-[semester]-SHA32id*.

Event and collections relations

The relation between these collections and events is given by: $event \leftarrow \{collections\}$.

a. Funding Poll ← {users_who_have_voted, registered_clubs}
b. Elections ← {users_who_have_voted, nominations, elections}

Different utilities/classes on the website utilize different subsets of these collections. The utility-collection subsets pairs are given below. We say that a utility **talks** with a subset of database collections if the website codebase is programmed to have a read-write relationship between that utility and the collections in that subset.

Funding-poll

Funding-poll **talks** to the subset:

a. registered_clubs: show club information and edit the votes entry in the club array (read/write)
b. users_who_have_voted: keeps track of users who have voted in the current event. (read/write)

Election

Election-class **talks** to the subset:

a. campaigns: read in the blurbs of each candidate (read)
b. users_who_have_voted: keeps track of users who have voted in the current event. (read/write)

Dash-door

Dash-door **talks** to the subset:

a. signatories: add and view current semester's signatories (read/write)
b. registered_clubs: view current semester's clubs information (read)
c. fund_requests: view funding requests (read)
d. elections: view current campaign data (read)

Maintainence and Event Running

Semester Changes

Before every semester begins, change the *.CONFIG* file to reflect the current semester. Then, ensure every semester dependent collection has a collection pertaining to the new semester. Note that **this must be done manually** by the Webmaster(s). Recall that the semester name must follow the form:

$$[semester] = term\text{-}year$$

For reference, these are the semester dependent collections:

Semester dependent

a. signatories
b. registered_clubs
c. fund_requests

Running Funding Poll

Some manual steps are necessary to run a funding poll event.

1. Edit the time parameters *fpopens* and *fpcloses* in the *.CONFIG* to ensure funding poll is open and closed at the right times. These parameters are determined by the Treasury.
2. Change the *poll-name* entry in the *.CONFIG* file to reflect the current funding poll ID. Recall that it must follow the form:

   fp-[semester]-SHA32id

Running Student Body Elections

1. Edit the time parameters *seopens* and *secloses* in the *.CONFIG* to ensure that the SB elections is open and closed at the right times. These parameters are determined by the Senate.
2. Change the *secampaign* entry in the *.CONFIG* file to reflect the current senate election ID. Recall that it must follow the form:

   se-[semester]-SHA32id