EMMANUEL SINGLETARY

DATABASE PROJECT

DISTRIBUTION LIST GENERATOR

A DISTRIBUTION LIST GENERATOR IS A TOOL USED BY STAFF MEMBERS TO CREATE LISTS OF PEOPLE, NAMELY STUDENTS. THESE ARE USED FOR BULK EMAIL AND FOR ORGANIZATION.

PURPOSE

▸ To build a better distribution list generator, faster and with more features

▸ MVNU already has one, but I think it's very slow and dated-looking

▸ There isn't a way to organize clubs or sports teams

▸ No ability for custom lists

CHALLENGES

▸ Complex SQL queries became an issue

▸ Couldn't figure out a clean way to provide some features without a front end framework

▸ I ran out of time, quickly

MVNU'S DISTRIBUTION LIST GENERATOR

▸ Dated UI

▸ Load time: 27s

▸ Not responsive

▸ Relies on slow MSSQL database

MY PROJECT

▸ Modern Bootstrap UI

▸ Load time: 607ms

▸ Responsive (Except for tables)

▸ Relies on fast MySQL database
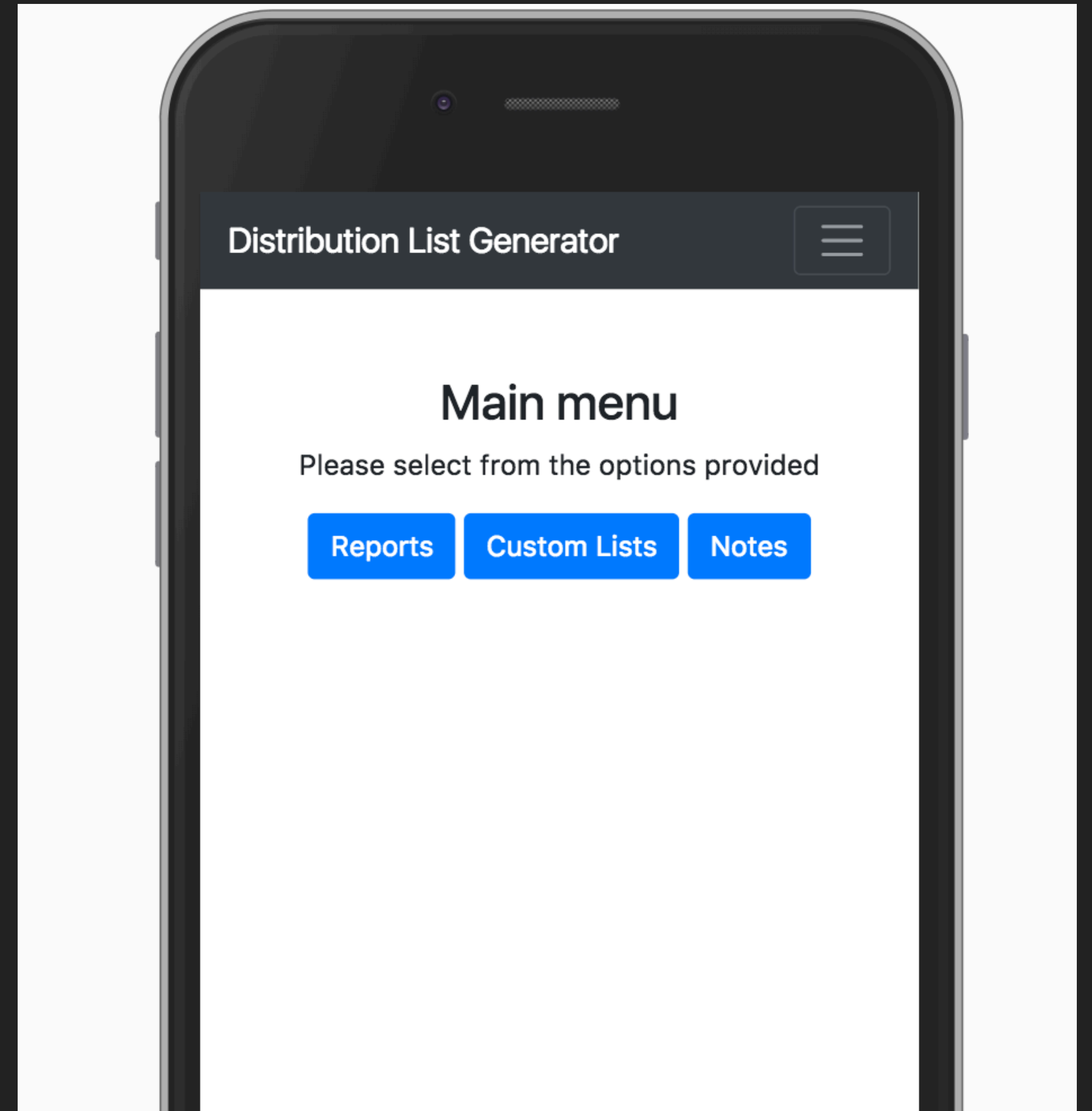
```javascript
11        return reject(err);
12      })
13    })
14  }
15
16  // Delete a custom list along with all members
17  exports.deleteList = function(listId) {
18    return new Promise((resolve, reject) => {
19      database.execQueryWithParams(`DELETE FROM person_li
20      .then((results) => {
21        database.execQueryWithParams(`DELETE FROM custom_
22        .then((results) => {
23          return resolve(results);
24        })
25      })
26      .catch((err) => {
27        return reject(err);
28      })
29    })
30  }
31
32  // Get all custom lists
33  exports.getLists = function() {
34    return new Promise((resolve, reject) => {
35      database.execQuery(`
36      SELECT custom_list.list_id, list_desc,
37      CONCAT(first_name, " ", middle_name, " ", last_name
38        COUNT(person_list.person_id) AS 'member_count'
39      FROM custom_list
40      LEFT JOIN person_list ON custom_list.list_id = pers
41      JOIN person ON custom_list.list_owner = person.id
42      GROUP BY custom_list.list_id
43      `)
44      .then((results) => {
```
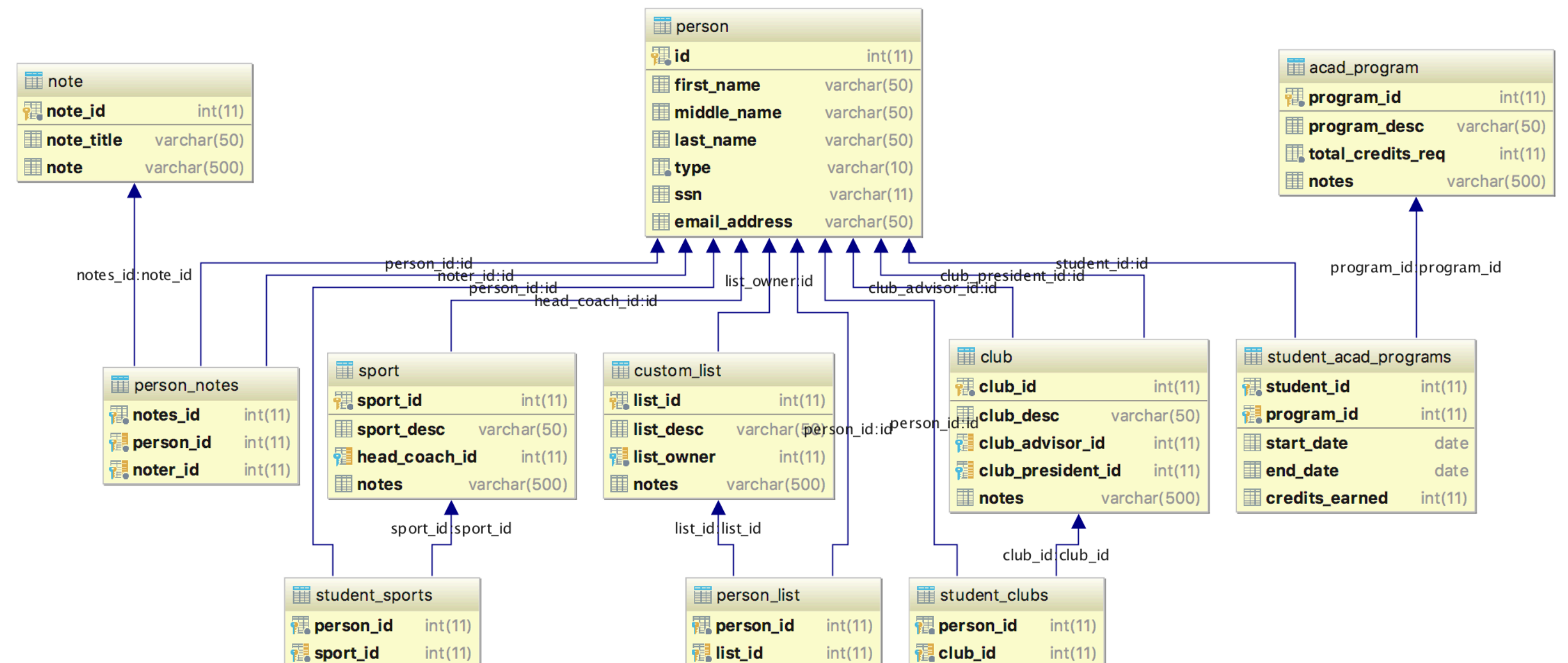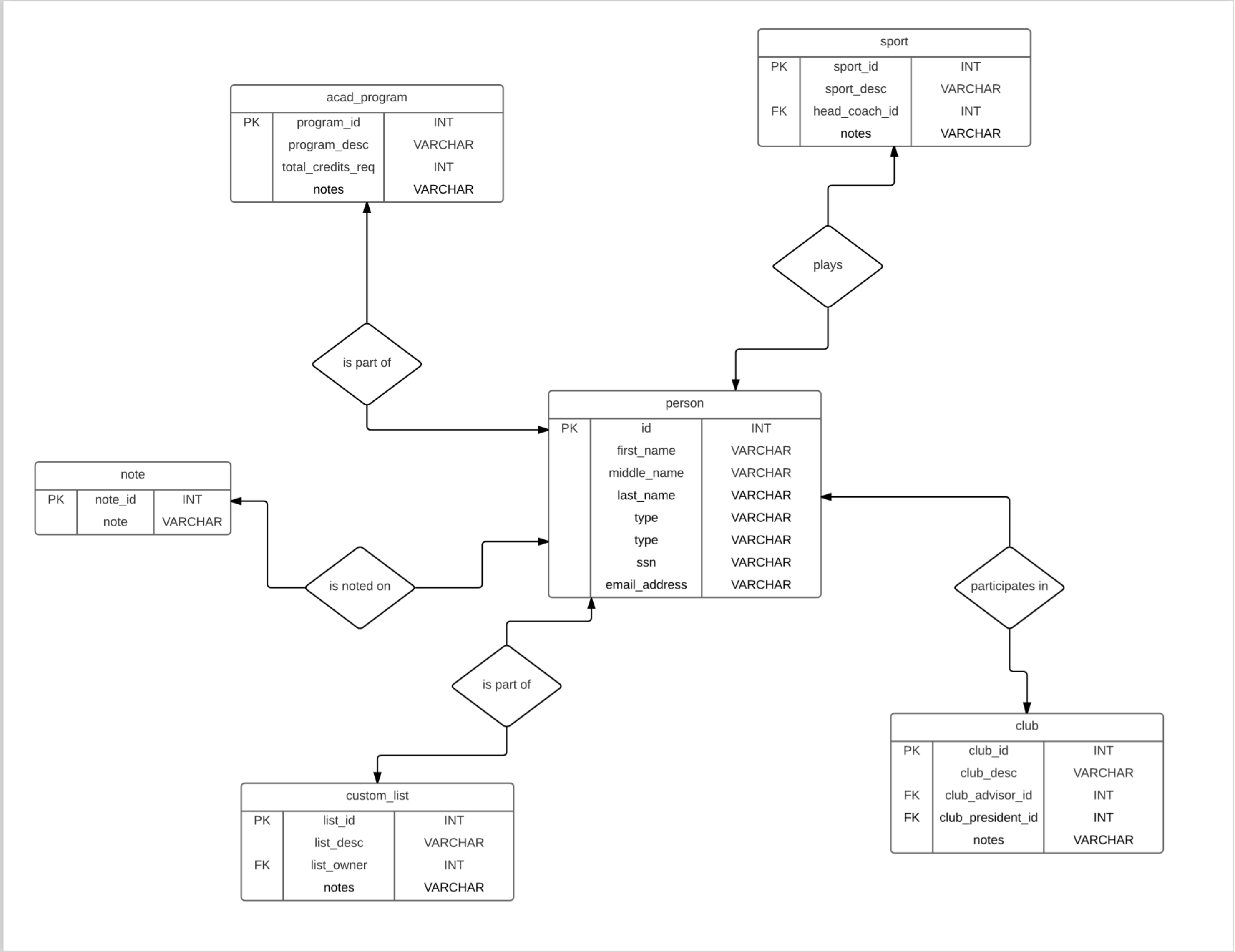
ARCHITECTURE

DATABASE

▸ Source of truth is 'person' table, lots of foreign key constraints

▸ It uses a many-to-many relationship, with cross-reference tables

ORIGINAL ER DIAGRAM

IMPLEMENTATION STACK

▸ Frontend: HTML/CSS/JS

▸ CSS: Bootstrap 4

▸ Backend: Node JS and Express

▸ Templating: Handlebars

▸ Database: MySQL 5.7

▸ Host: Digital Ocean

LINKS

▸ Github Repo: https://github.com/esingletary/distribution-list-generator

▸ Demo Link: https://dlg.manny.co/

DEMO