
Teen Court Database

Summer Development Document | Current Version 1.0.1

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TEEN COURT DATABASE: SOFTWARE DEVELOPMENT DOCUMENT

Revision History

<i>Date</i>	<i>Author</i>	<i>Version</i>	<i>Comments</i>
7/10/13	Bobby Reilly	1.0	Document Finished
8/29/13	Bobby Reilly	1.0.1	Updated for expunge

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1.0 Overview

The Teen Court Database is a web application used to track the progress of juvenile defendants within the local teen, or youth court program. Court administrators will have the ability to generate reports, view statistics and track volunteer information. Since this is intended to be web application, access will be obtained with any internet capable computer or mobile device.

This document contains the necessary components for the design and implementation of the Teen Court Database application. [AT]

1.1 Purpose

The purpose of this document is to describe what changes were requested and made to the Teen Court Database program.

Any possible development issues or constraints will also be described. [AT]

1.2 Summer Overview

Bobby Reilly continued work on the Teen Court Database program based on what wasn't finished during the school year and Marlene Todd's requested changes. The modifications made to the site during this time were:

1.2.1 Court Redesign

The original design assigned defendants to courts on a 1-to-1 relationship. Discussion with Marlene revealed the need for as many defendants as needed to be assigned to a single court.

1.2.2 Search

Searches for defendants, courts, volunteers, and workshops needed to be completed.

1.2.3 Program Information

Field information used by a program such as statutes, officers, and locations are stored in the database to allow quick retrieval of repetitive information and to minimize typing errors when entering data. Program administrators need to be able to enter new information and edit existing information.

1.2.4 Reports

The primary reports listed by Marlene as needing to be completed were Volunteer Hours and Program Demographics. Programs can also allow other programs to generate reports using their data. This feature is planned to be used by Pierre to generate reports for some or all of the teen courts in South Dakota.

1.2.5 Expunge

Programs are able to expunge defendants, preventing any further changes to that defendant's information. Programs are initially set to having to expunge level, but can choose between three options. A full expunge is equivalent to deleting the defendant from the database. A partial expunge

removes most identifying information, but leaves details such as data of birth, race, and school to allow for demographics information to be generated.

2.0 Design and Implementation

2.1 Court Redesign

The initial court design had defendants tied to the court in a 1-to-1 relationship. Discussions with Marlene revealed the need for defendants' relation to the court to be many-to-1. This problem was solved by defendants being assigned to a court through a court case, with court type, court members, and court jury set on the new page.

2.1.1.1 Court View

- ◇ Court Date
- ◇ Court Time
- ◇ Court Address
 - Name
 - Location

The court name and location are recorded and can be selected from a list by the modal select windows.

2.1.1.2 Court Case View

- ◇ Defendant
- ◇ Court Type
- ◇ Court Address
 - Name
 - Location
- ◇ Court Members
- ◇ Jury Members

Changes were also made for displaying courts and court cases in Datatables. For courts, the number of assigned cases is displayed. For court cases, the case type is displayed.

2.1.2 Database Tables

The following MySQL tables were changed or added:

- ◇ court
- ◇ court_case
- ◇ court_defendant
- ◇ court_jury_defendant
- ◇ court_jury_volunteer

2.2 Search

The four main sections of the court (Defendants, Volunteers, Courts, and Workshops) have an option to search the program's data based on input criteria. Most text fields are handled as partial searches. Date and time text fields, as well as location dialogs, require an exact match to the record.

2.2.1 Search Overview

Searches for each section are based on the following information. Any fields that are not filled out have no effect on the search.

2.2.1.1 Defendant Search

- ◇ Last Name
- ◇ First Name
- ◇ City
- ◇ Date of Birth
- ◇ Home Phone
- ◇ Court Case Number
- ◇ Agency Case Number

2.2.1.2 Volunteer Search

- ◇ First Name
- ◇ Last Name
- ◇ Phone Number
- ◇ Email
- ◇ Active

2.2.1.3 Court Search

- ◇ Name
- ◇ Address
- ◇ Court Date
- ◇ Court Time

2.2.1.4 Workshop Search

- ◇ Date
- ◇ Time
- ◇ Instructor
- ◇ Topic
- ◇ Location

2.2.2 Application Pages

Only the search pages are handled by the user. The rest are support pages to record the search result.

- ◇ /defendant/search.php
- ◇ /volunteer/search.php
- ◇ /court/search.php
- ◇ /workshop/search.php
- ◇ /data/defendants_search.php
- ◇ /data/volunteers_search.php

- ◇ /data/courts_search.php
- ◇ /data/workshops_search.php

2.2.3 Architecture Overview

For all searches, a base MySQL string is written. If the search parameter has a non-empty value, the MySQL search has additional restrictions placed on it. Text input is rewritten to use MySQL's LIKE statement as a partial match. Locations are compared on ID in the MySQL string. Date and time are compared after the search has completed and removed from the returning result.

2.3 Program Information

Every youth or teen court program or association who uses this application will be assigned their own data space. Each program has common data such as officers, statutes, and locations that are recorded. The following changes allow program administrators to add or edit information for future use.

2.3.1 MyProgram Overview

From the MyProgram Tab, the program code is displayed and links to edit program information is available. Each link takes the user to admin/program_data, but the information available to edit depends on what action is set.

2.3.1.1 Edit Location

- ◇ City
- ◇ State
- ◇ Zip

2.3.1.2 Edit Common Location

- ◇ Name

2.3.1.3 Edit Officers

- ◇ Identification
- ◇ Last Name
- ◇ First Name
- ◇ Phone Number

2.3.1.4 Edit Statutes

- ◇ Code
- ◇ Title
- ◇ Description

2.3.1.5 Edit Schools

- ◇ School Name
- ◇ Address

- ◇ City
- ◇ State
- ◇ Zip

2.3.1.6 Edit Positions

- ◇ Position

2.3.1.7 Edit Court Locations

- ◇ Name
- ◇ Address
- ◇ City
- ◇ State
- ◇ Zip

2.3.1.8 Edit Sentence

- ◇ Sentence
- ◇ Description
- ◇ Additional Text Name

2.3.2 Application Pages

The pages containing this component are:

- ◇ admin/program.php
- ◇ admin/program_data.php

2.3.3 Database Tables

The following MySQL tables are modified by the user

- ◇ program_location
- ◇ program_common_location
- ◇ program_officers
- ◇ program_statutes
- ◇ program_schools
- ◇ program_positions
- ◇ court_location
- ◇ program_sentences

2.3.4 Design Overview

The information is only listed on the program_data page separated as blocks of PHP to minimize the number of pages needed. Each field is listed in a Datatable to allow for each retrieval and to keep the id of the field being manipulated hidden from the user.

2.4 Reports

The two primary reports needed by Marlene are Volunteer Hours and Program Demographics. Volunteer Hours are gathered based on when the Court took place. Demographics are gathered based on Defendant Added date. The pages are displayed in HTML to allow for easy printing. Demographics information can be accessed by other programs if a program administrator allows other programs access. A selection of which programs are used is made before the report is generated.

2.4.1 Component Overview

The following areas can be accessed by the user.

2.4.1.1 Index

The user selects the report type and start/end date for the report to be generated. If the user is generating a demographics report, they will also need to select which programs to gather data for.

2.4.1.2 Process

The report is generated and displayed on the process page.

2.4.2 Database Tables

The component uses a large variety of tables to gather all information needed.

- ◇ program
- ◇ court
- ◇ court_case
- ◇ court_member
- ◇ court_jury_volunteer
- ◇ defendant
- ◇ citation
- ◇ citation_offense
- ◇ program_statutes
- ◇ citation_vehicle
- ◇ program_locations

2.4.3 Classes

The following classes are associated with this component:

- ◇ /includes/class_program.php
- ◇ /includes/class_user.php
- ◇ /includes/class_reports.php

2.4.4 Architecture Overview

Reports are sent to a specified PHP function at the beginning of the process page, with each report having its own function to retrieve data, format the data, and display it on a page. Due to not being able to modify the host server, a solution of having the information as a simple HTML page formatted for printing is used.

2.5 Expunge

After defendants have gone through the Teen Court program, their data may be expunged from the database to ensure information is not tampered with. There are 2 expunge settings, with the third being equivalent to deleting the defendant from the program.

2.5.1 Component Overview

Expunging a defendant is done from that defendant's Expunge tab. Setting the expunge level for a program is done on the program's primary information.

2.5.2 Database Tables

Setting expunge level affects only the program table, while expunging a defendant can affect all of the remaining tables.

- ◇ program
- ◇ citation
- ◇ citation_offense
- ◇ citation_stolen_items
- ◇ citation_vehicle
- ◇ court_case
- ◇ court_jury_defendant
- ◇ court_jury_volunteer
- ◇ court_member
- ◇ defendant_sentence
- ◇ guardian
- ◇ intake_information
- ◇ workshop_roster
- ◇ defendant

2.5.3 Classes

The following classes are used with this component:

- ◇ /includes/class_program.php
- ◇ /includes/class_defendant.php

2.5.4 Architecture Overview

Expunge level is set on the program information page. This ensures that only program administrators are able to modify expunge level and keeps it at the correct setting through all defendants.

When the defendant is expunged, the level determines what information is kept and what is removed. No expunge causes the program to return to the expunge tab with no changes. Full expunge is the same as clicking on 'Delete Defendant' and removes everything about the defendant from the database. A partial expunge only removes personal information, leaving pieces such as school, race, and sex. Sealing the defendant keeps all information, but prevents alterations to the defendant's data.