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# *Teen Court Database*

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*Summer Development Document | Current Version 1.0*

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## TEEN COURT DATABASE: SOFTWARE DEVELOPMENT DOCUMENT

### *Revision History*

<i>Date</i>	<i>Author</i>	<i>Version</i>	<i>Comments</i>
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## Table of Contents

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1.0	Overview .....	4
1.1	Purpose .....	4
1.2	Summer Overview.....	4
1.2.1	Court Redesign .....	4
1.2.2	Search.....	4
1.2.3	Program Information .....	4
1.2.4	Reports .....	4
2.0	Design and Implementation.....	5
2.1	Court Redesign.....	5
2.1.2	Database Tables .....	5
2.2	Search.....	5
2.2.1	Search Overview .....	6
2.2.2	Application Pages.....	6
2.2.3	Architecture Overview .....	7
2.3	Program Information .....	7
2.3.1	MyProgram Overview .....	7
2.3.2	Application Pages.....	8
2.3.3	Database Tables .....	8
2.3.4	Design Overview .....	8
2.4	Reports.....	8
2.4.1	Component Overview .....	8
2.4.2	Database Tables .....	9
2.4.3	Classes.....	9
2.4.4	Architecture Overview .....	9

## 1.0 Overview

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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

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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

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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 four modifications made to the site during this time were:

### 1.2.1 Court Redesign

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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

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

### 1.2.3 Program Information

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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

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The primary reports listed by Marlene as needing to be completed were Volunteer Hours and Program Demographics.

## 2.0 Design and Implementation

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### 2.1 Court Redesign

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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

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- ◇ 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

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- ◇ 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

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The following MySQL tables were changed or added:

- ◇ court
- ◇ court\_case
- ◇ court\_defendant
- ◇ court\_jury\_defendant
- ◇ court\_jury\_volunteer

## 2.2 Search

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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

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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

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

### 2.2.1.2 Volunteer Search

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

### 2.2.1.3 Court Search

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

### 2.2.1.4 Workshop Search

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

## 2.2.2 Application Pages

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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

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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

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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

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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

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- ◇ City
- ◇ State
- ◇ Zip

#### 2.3.1.2 Edit Common Location

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- ◇ Name

#### 2.3.1.3 Edit Officers

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

#### 2.3.1.4 Edit Statutes

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- ◇ Code
- ◇ Title
- ◇ Description

#### 2.3.1.5 Edit Schools

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

#### 2.3.1.6 Edit Positions

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- ◇ Position

#### **2.3.1.7 Edit Court Locations**

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

#### **2.3.1.8 Edit Sentence**

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- ◇ Sentence
- ◇ Description
- ◇ Additional Text Name

### **2.3.2 Application Pages**

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The pages containing this component are:

- ◇ admin/program.php
- ◇ admin/program\_data.php

### **2.3.3 Database Tables**

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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**

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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**

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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 plain text to allow for easy printing.

### **2.4.1 Component Overview**

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The following areas can be accessed by the user.

#### **2.4.1.1 Index**

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The user selects the report type and start/end date for the report to be generated.



#### **2.4.1.2 Process**

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The report is generated and displayed on the process page.

#### **2.4.2 Database Tables**

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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**

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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**

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Reports are set up as a two part system, with an initial fetch of information and a second function to print with additional information formatting/fetching if needed. 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.