

Teen Court Database

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Sponsor

- Lawrence County Teen Court
 - Director Marlene Todd
 - Based out of Deadwood, SD
-
- Teen Courts provide a place for first time offenders to assume responsibility for their actions and keep their record clean.
 - There are 9 courts within South Dakota and around 1,250 in the US.

Client Problem

- Using JAT Trax Studio's Teen Court Database since 2000
 - Problems with JAT Trax Studio's software
 1. Uses old version of Microsoft Access, can not be installed on newer PCs
 2. Only accessible from one PC
 3. Limited ability to gather statistics to send to national youth court and local legislatures

Requirements

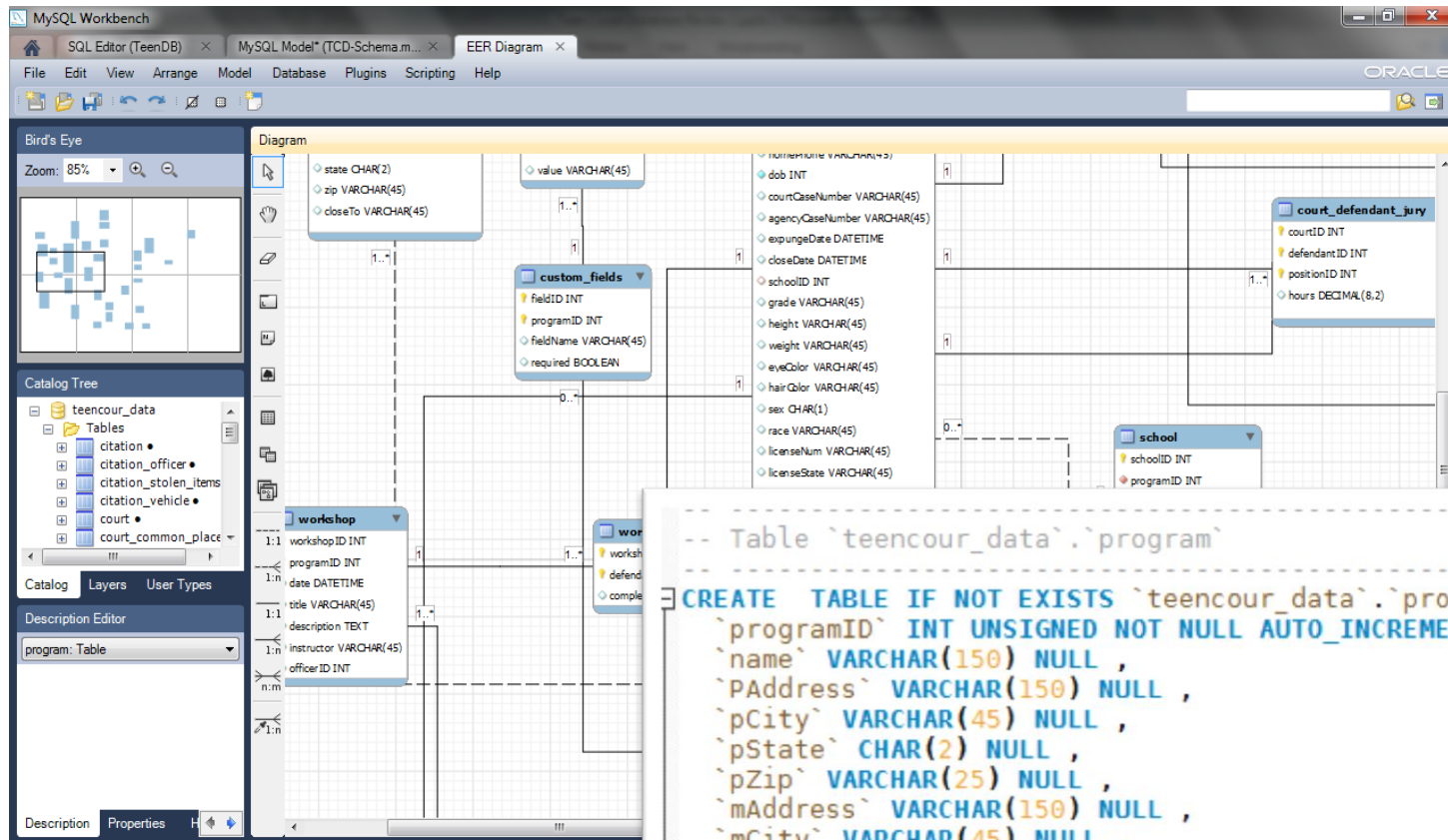
1. Individual court programs have access to their own data.
2. Three levels of defendant expunging (Full, Partial, Sealed).
3. Privacy of all juveniles within the court system is a large concern and must be kept secure.
4. Ability to easily gather statistics on a state and national level

Sprint Review

- Sprint 1 Review
 - Mission Statement
 - Requirements, User Stories and Project Research
 - Initial Software Requirement Document
 - Initial Software Design Document
- Sprint 2 Review
 - Initial User Interface Design
 - Class Designs
 - Database Schema
 - Domain Name and Web Space

Sprint 2 - Design

MySQL Database



```
-- Table `teencour_data`.`program`
```

```
CREATE TABLE IF NOT EXISTS `teencour_data`.`program` (  
  `programID` INT UNSIGNED NOT NULL AUTO_INCREMENT ,  
  `name` VARCHAR(150) NULL ,  
  `Address` VARCHAR(150) NULL ,  
  `pCity` VARCHAR(45) NULL ,  
  `pState` CHAR(2) NULL ,  
  `pZip` VARCHAR(25) NULL ,  
  `mAddress` VARCHAR(150) NULL ,  
  `mCity` VARCHAR(45) NULL ,  
  `mState` CHAR(2) NULL ,  
  `mZip` VARCHAR(25) NULL ,  
  `added` TIMESTAMP NULL ,  
  PRIMARY KEY (`programID`))  
ENGINE = InnoDB;
```

Sprint 2 - Design

Class Prototypes and IDE

The screenshot displays the Aptana Studio 3 IDE interface. The top menu bar includes File, Edit, Source, Navigate, Search, Project, Run, Commands, Window, and Help. Below the menu is a toolbar with various icons for file operations and development tools. The Project Explorer on the left shows a project structure with folders 'includes', 'css', and 'js'. The 'includes' folder is expanded, listing several PHP files: class_core.php, class_court.php, class_defendant.php, class_offense.php, class_parent.php, class_sentence.php, class_trial.php, class_user.php, class_volunteer.php, class_workshop.php, db_close.php, db_connect.php, footer_external.php, footer_internal.php, footer.php, header_external.php, and header_internal.php. The 'class_core.php' file is selected and highlighted. The Editor on the right shows the code for 'class_core.php'. The code defines a 'Core' class with private attributes for database connection information, a public attribute for the database handler, and a private static attribute for the instance. It includes a constructor function and a static function 'dbOpen()' for opening the database connection. The code is as follows:

```
1 k?php
2 class Core {
3     // database connection info
4     private $db_host = 'localhost';
5     private $db_name = 'teencour_data';
6     private $db_user = 'teencour_web';
7     private $db_password = 't33nc0urtw3b12';
8
9     // database handler
10    public $dbh;
11    private static $instance;
12
13    // construct the core class
14    private function __construct() {
15        // building data source name
16        $dsn = 'mysql:host=' . $this->db_host . ';dbname=' . $this->db_name;
17        // open the database
18        try {
19            $this->dbh = new PDO($dsn, $this->db_user, $this->db_password);
20        } catch (PDOException $e) {
21            print "Error: " . $e->getMessage() . "<br>";
22            die();
23        }
24    }
25
26    // create an instance to open db communication
27    public static function dbOpen() {
28        if (!isset(self::$instance)) {
29            $object = __CLASS__;
30            self::$instance = new $object;
31        }
32        return self::$instance;
33    }
34 }
```

The bottom of the IDE shows a panel with 'Samples', 'Snippets', and 'Outline'. The 'Outline' panel is active, showing a list of classes and attributes: 'Core' (db_host, db_name, db_user, db_password).

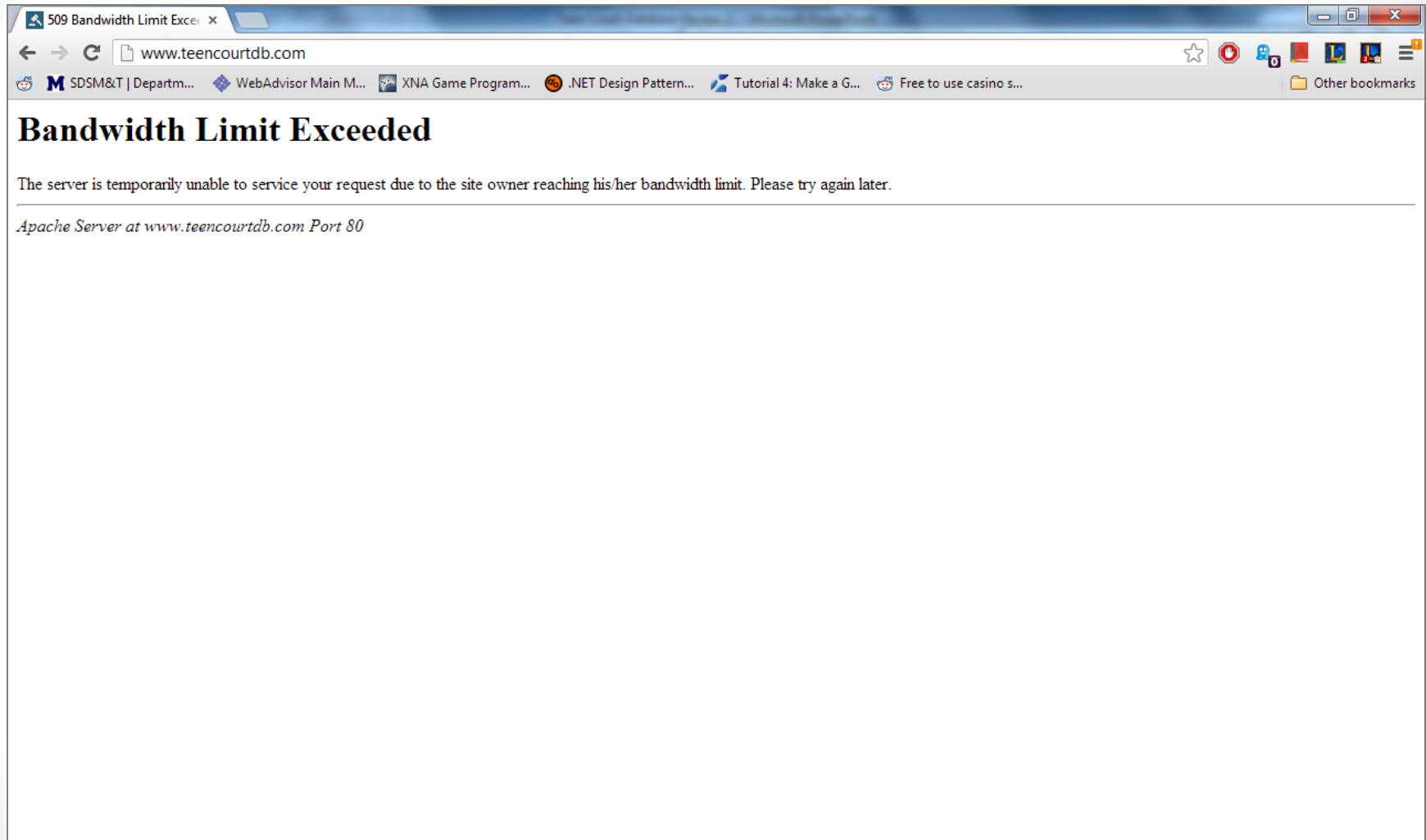
Sprint 3 - Prototype

- Finish documentation
- Develop website prototype
- [Prototype Link](#)

Successes

- Have the domain, web space and secure key ready
- Prototype layout is nearly finished, UI look and feel is finished
- Using JQuery DataTables plugin to parse JSON data
- Core class for database connection and PDO setup

Problems



Issues

- Didn't have hosting taken care of till Sprint 3
- Needed to redesign some database components
- Learning PHP, JQuery, and JSON formatting
- Prototype needs more areas finished up
 - Application Admin
 - Program Admin
 - Reports
 - Statistics
- Need clarification from sponsor on some Defendant information
- Display fixes on IE

Remaining Backlog

- Finish up few areas in prototype design
- Get approval and feedback from sponsor
- Begin developing functionality
- Future meeting with client

Questions?