Teen Court Database

Team TwoCents: Bobby Reilly and Andrew Thompson

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

Current Software

Project Analyst

Distributed Application	Web-based Application
Pros:	
Packaged software with self installer	Can access anywhere
Data more secure if used on an intranet	Easier to gather national statistics
	No chance to miss updates
Cons:	
Possible to miss updates	Harder to secure
Each court program responsible for own servers	Single organization has to cover all costs
Statistics still difficult to gather nationally	

- The second concept was chosen to be developed.

Requirements

1. Options within the database need to be highly generic for individual courts to customize and adjustable.

2. Privacy of all juveniles within the court system is a large concern and must be kept secure.

3. Ability to easily gather statistics on a state and national level

User Stories

- Handle different search criteria (citation #, name, etc.)
- Allow order and values for selection to be adjustable by court
- Able to submit statistics to national organization
- Store large amounts of information for the defendants
- Accessible only by Teen Court staff
- Able to send out custom surveys
  - Specify who receives the survey via state or court
- Ability to track changes made through the database

Risk Management

- Dealing with juveniles, charges must be kept confidential
- Data security
  - Secure connections
  - Accessing non-approved court data
  - Sanitize input to prevent SQL injection
- Data normalization
  - Minimizes redundancy
  - Provides as consistent data as possible
- Cross platform and browser support
- User log

Use Case – Application Administrator

- Site Administrators will be able to:
  - Create and delete courts with confirmation from the Court Administrator
  - Create and modify all users
  - Pull statistics on National and State levels

Use Case – Court Administrator

- Court Administrators will be able to:
  - Set information about the court such as state, town(s), logo, schools, court types, court personnel, volunteers, court mailing information, and court document information
  - Set information for court cases such as valid marks for identification, statute number, title, type, and workshop titles
  - Manage personnel access levels
  - Create reports
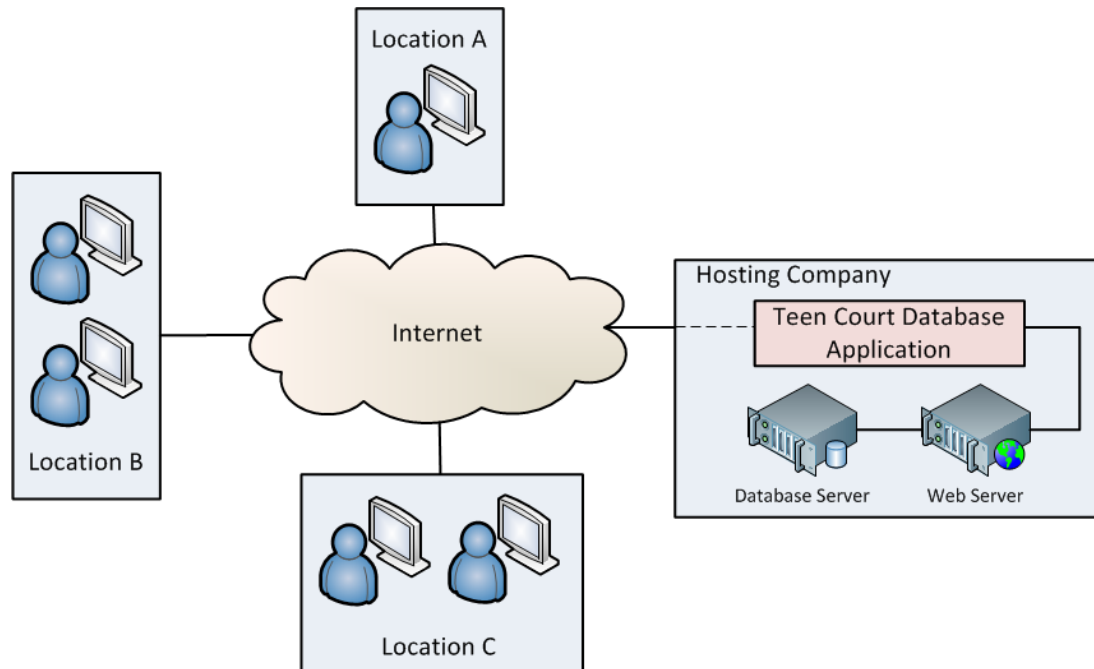 - Pull statistics for the court

Use Case – Court Manager

- Court Manager will be able to
  - Add and modify Defendant and Volunteer information
  - Create Court Docket and manage Jury Pool
  - View and create reports
  - Pull statistics for the court

Use Case – Court User

- Court Users will be able to:
  - View Defendant and Volunteer information
  - View Court Docket
  - View and create reports
  - Pull statistics for the court

System Architecture

- Web-based Application
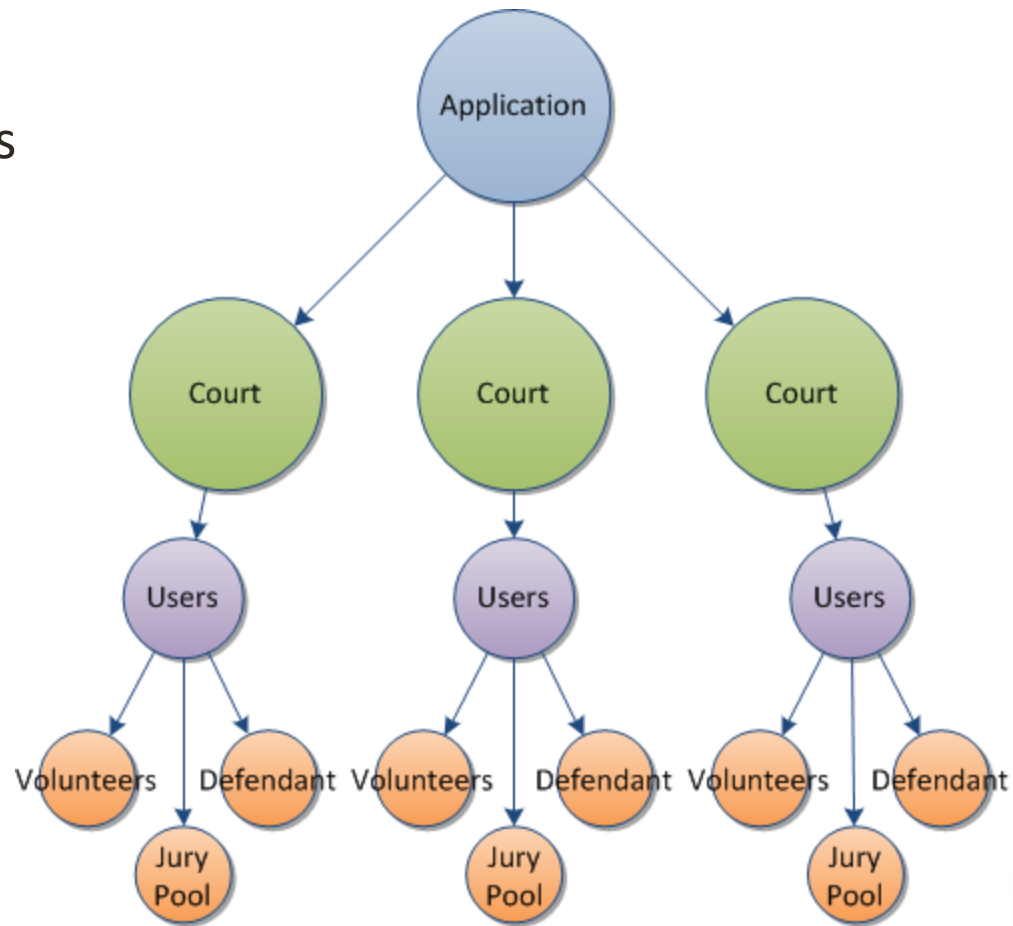- Accessible with any internet connected device

Application Design

- Apache HTTP web server running on Linux OS
- Web application will be built using:
  - PHP
  - PDO (Data Access Layer)
  - MySQL RDBMS
  - JQuery (JavaScript Library)
  - JQueryUI
  - CSS
  - AJAX
- An object-oriented approach will be used
  - Quicker implementation
  - Allows code reuse
  - Easier to test

Application Components

- Court Programs
- Users and Access
- Defendant
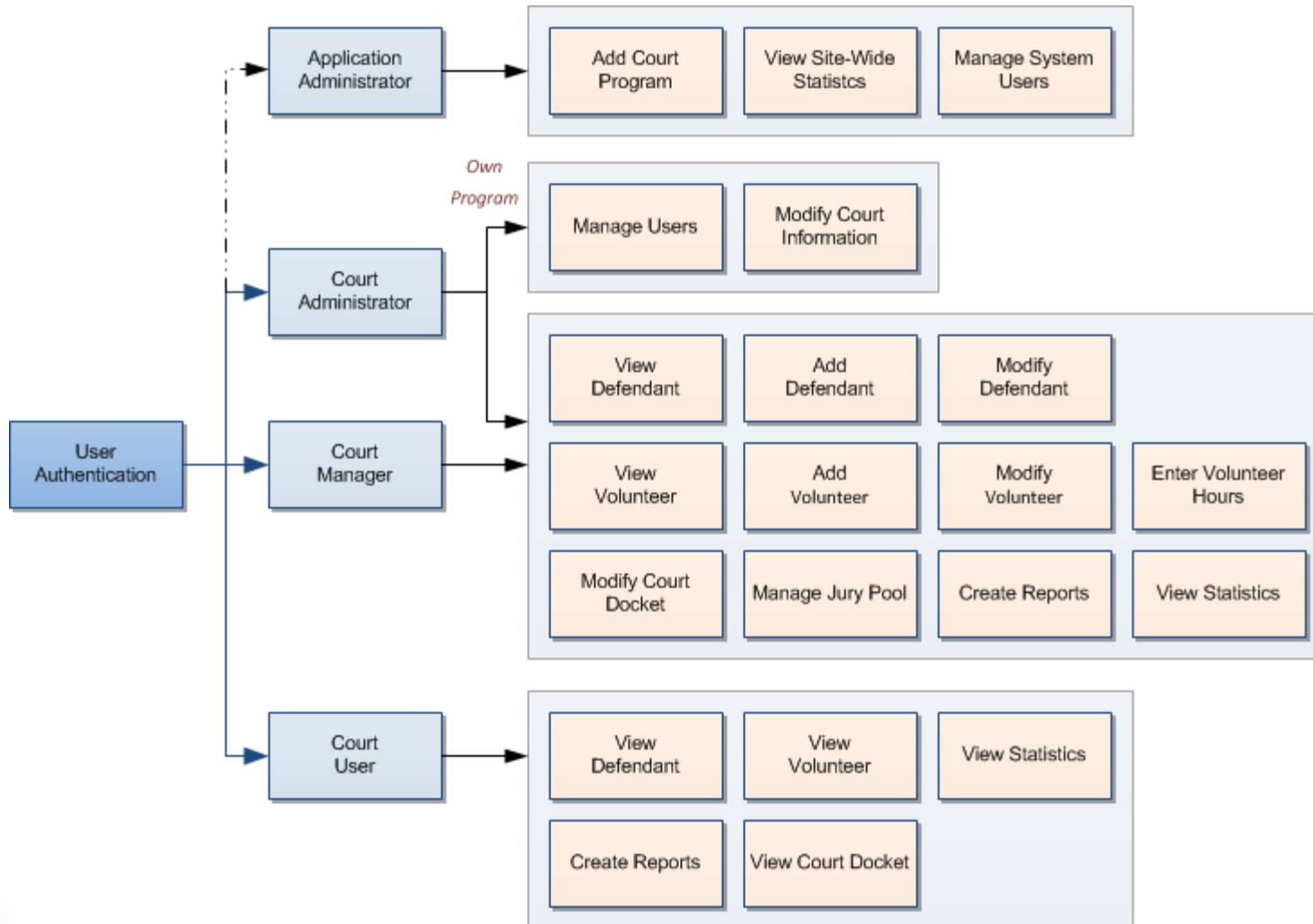- Volunteer
- Jury Pool
- Reports
- Statistics
- Surveys

Component – Court Program

- Each court program accesses and data
- Every user belongs to a court program
- The National Association of Youth Courts has 1,050+ registered youth and teen court programs
  - Any of these could have an "area" setup for them
  - Each could have their own branding on the site
- Ability to have their own custom data fields
  - Schools, cities covered, etc.

Component – User Access

- Users will gain access using email address and password
- Initial account created by:
  - Application Administrator
    - Can create any level
  - Court Administrator
    - Can create Court Managers and Court Users
    - Access only their data
- Prompted to change password at first login

Component – User Access

Component – Defendant

- Data Members
  - Personal Information
  - Parental Information
  - Citation Data
  - Intake Data
  - Court Lineup
  - Sentence Details
  - Workshop and Training Classes
  - Expunge Information
- Actions
  - Add, Modify, Delete
  - Search

Component – Volunteer

- Data Members
  - Personal Information
  - Contact Information
- Actions
  - Add, Modify, Delete
  - Tracked data per trial
    - Volunteer Type
    - Date
    - Hours

Component – Jury Pool

- Data Members
  - Active/Inactive
  - Personal Information
  - Contact Information
  - Comments
  - Jury Information
    - Date and Time
    - Location
    - Jury Hours
- Actions
  - Add, Modify, Delete
  - Show active Jurors
  - Search Jury Pool

Component – Reports

- Court Docket
- Jury Summons
- Sentence Report
- Officer Status Report
- Expungement Report
- Case Notes
- Workshop and Training Class Schedule
- Volunteer Thanks Letter

Component – Statistics

- Peer Court Activity
- Volunteer Hours
- Demographics
- Case Log
- Name Log

Component – Surveys

- Ability to email surveys to application users
- Gather specific data and feedback
- Track and report any problems
- Improve overall use of application

User Interface Concept

Testing

- Unit testing will be utilized to cover all aspects of the program.

- Will be done as classes are implemented.

- Possibility of writing some test cases before implementation on certain data

Budget

- Our budget is zero. Hence the name of our team!
- Sponsor will cover costs of:
  - Web hosting
  - Domain name registration
  - Secure key certificate

Sprint 1 Summary

- Deliverables
  - Mission Statement
  - Initial Software Development Agreement
  - Initial Software Requirements Document
- Leftover Backlog
  - Domain Name and Hosting

Sprint 2 Backlog

- Database Schema
- Class Designs
- User Interface Design
- Continue documentation

Questions?