

5210 Grand Ave, Fort Smith, AR 72901

Contact: [DJ Sawyer](#), [James Vo](#), [Jesse Nicholson](#), [Ryan Timmerman](#), [Hung Tran](#)

November 9, 2013

Brian Henehan  
University of Arkansas Fort Smith  
5210 Grand Ave  
Fort Smith, AR 72901

Dear Mr. Henehan:

Enclosed is our Systems Proposal for VFD Training. We propose to build a new system for local fire departments that will replace previous and outdated systems. While providing our group at the University of Arkansas Fort Smith valuable systems analysis experience, the project also offers a viable solution to tedious paperwork for the staff of local fire departments. We have met with staff of several different departments to discuss this project. We have received official approval of the project from Milltown/Washburn and Greenwood. We have visited Milltown/Washburn and have already begun the project. We would appreciate your informed review and approval of the enclosed material. If you have any questions or concerns, please contact us via email. We look forward to your comments and approval.

Sincerely,

DJ Sawyer  
Jesse Nicholson  
Hung Tran  
Hoang James Vo  
Ryan Timmerman

# **VFD TRAINING**

DJ Sawyer  
Jesse Nicholson  
Hoang James Vo  
Hung Tran  
Ryan Timmerman

**Halon**  
**University of Arkansas Fort Smith**

**Request for Proposal:**  
**VFD Training System**

Table of Contents:

I.	Cover letter	1
II.	Title page of project	2
III.	Table of Contents	3
IV.	Executive summary	4
V.	Outline of Systems Study	5
VI.	System Study	5
VII.	Systems Alternatives	7
VIII.	Recommendations	11
IX.	Summary	12

Appendices

- Appendix A – Project Charter
- Appendix B – Project Status Reports
- Appendix C – Information Gathering Documentation
- Appendix D – Data Flow Diagrams
- Appendix E – Data Descriptions
- Appendix F – Process Specifications
- Appendix G – Input and Output Specifications/Designs

## **Executive Summary**

Many fire departments in Sebastian county Arkansas are volunteer departments. These departments attempt to provide the same service and assistance as a standard department, however these departments often have less funding and have issues obtaining the tools they need to easily track what they need to maintain certification and the funding they do receive.

Firefighters in Sebastian county are required to complete sixteen hours of training every year, as well as each firefighter completing three basic classes in the required skills for answering calls. On top of this many volunteers are also first responders and must have additional classes as requirements to certify. Keeping track of these requirements for an entire department is a full time job, and with all the firefighters volunteering their time, it is difficult to have someone volunteer even more time to track training.

Many of these volunteers use paper systems they designed themselves, or a complicated Microsoft Excel spreadsheet. Since the data must be retained for several years, some departments have files and binders worth of data full of information from various years. Other departments maintain several Microsoft Excel spreadsheets. Many departments keep records differently from one another, making comparing data from one to the next more difficult.

Our solution is to provide a program free of cost to the Sebastian county volunteer fire departments. We intend to solve this problem using a web server based ASP.Net application. This program will automate form completing and validating. It will also store and track data more effectively and efficiently than the current solutions. This program will hopefully be used by many of the departments across the county, standardizing the way data is stored and displayed, making it easier to view and understand the data from its storage.

When this program is completed, it will allow the volunteer training officers to schedule classes, print enrollment sheets and fulfill other aspects of their responsibility more effectively and efficiently. After deployment of the web server the training officers can perform their duties from any computer with an internet connection.

## **Outline of Systems Study**

Using our group's personal knowledge of the problem, we got several interviews designed and prepared. We conducted our interviews and took notes regarding the needs of the training officers and chiefs of the volunteer fire departments of Sebastian County. We interviewed two training officers and three chiefs. These interviews occurred simultaneously due to a time constraint. Based on these interviews we conducted we were able to more accurately set up and design the system. These interviews provided us with a priority for the various system requirements. These interviews also told us a lot about other functions that our system could serve with minor adjustments, and provided us with detailed forms and tools to provide detailed data dictionary values. We then discussed the forms with the training officers and amongst ourselves to determine what necessary steps we had overlooked. It also allowed us to determine the scope of the system, its requirements and how it might grow to fulfill more of the needs of the volunteer departments.

## **System Study**

We began by discussing the general idea of the project amongst ourselves. Since DJ is himself a volunteer firefighter we used his knowledge of the situation and our own knowledge to prepare a set of questions. Using his connections at the volunteer department we arranged and conducted several interviews to determine what type of decisions we should make. We interviewed the training officer and fire chief for the Milltown/Washburn department as well as the Sebastian county volunteer Chief of Chiefs and the Chief Training Officer. Another meeting between various department chiefs was also attended, and more questions were asked. Each interview allowed the project to be reconsidered and refactored with the new data we obtained. The two training officers we interviewed provided documentation to us for reference. The officer of Milltown/Washburn provided their paper copies that they keep on each firefighter, while the Chief Training Officer provided Microsoft Excel spreadsheets that he had designed. These provided the primary reference material for us as we continued developing the design of the system.

Discussing the proposed system with DJ made it clear that the design would solve a great many problems for the volunteer training officer. DJ also made it clear that the data collected for the training program would be useful for tracking other data as well. Our discussions with the training officers showed that the material currently used to track firefighter training is very rudimentary and time consuming, since much of the work that would be tracked automatically by

an SQL database must be done by hand. The primary desire that came across from the Chief Training Officer was that moving around firefighter records in the Microsoft Excel document he used was incredibly time consuming and difficult. This made it clear to us that a solid SQL backend would be a huge improvement for the volunteer training officers. Speaking to the Chief of Chiefs of the volunteer fire departments of Sebastian County revealed that a new website was being developed for the county and that he wanted us to attend a meeting of the chiefs to determine if we could work with the website developer. This showed us that an ASP.NET web server based project was the one of the best solutions. We also received various documents from the training officers regarding what they use to get new firefighter info, how they store their firefighter info, and what data is kept regarding training. Taking these documents and looking through them we were able to determine what data stores and data types we needed in the system we are developing.

## **Paper-based System**

One alternative to address the priority problems of the Volunteer Fire Department Training System is to user paper filing methods. The paper method would involve completing all of the paperwork on physical forms. To implement this, the Fire Chief and the department's Training Officer would have to create the forms, print, copy, and file them once they are completed. Some of these forms they must request from outside parties, such as the Arkansas Fire Academy and the Arkansas government. They must also cross reference these forms and maintain filing systems for several years, buying more storage for these documents as necessary. Much of this data must be replicated and stored on multiple forms, such as identification information for a particular firefighter. This can become very tedious and redundant. Especially when attempting to provide confirmation of training for the state and insurance agencies, who do have certain requirements.

## **Old Software System**

Another alternative is the software the Fire Department previously used. This software can fulfill the needs of the volunteer departments, however this solution's use was discontinued due to price. The software costs approximately \$800 initially and an annual \$300. It is extremely expensive and the software is also very outdated and written in a poor language for its use. The volunteer departments use grant funds and donations to purchase equipment and maintain what they already have, making this software an expensive luxury. The software was written in Visual Basic which does not offer the best options for this type of software, specifically the maps, which we feel are not necessary for the programs purpose. This software has also not been updated in several years, and may not meet all the needs that the volunteer departments have at this time. To implement this solution the Fire Department would have to renew their subscription, retrain their training officers and install the software on their computer(s).

## **Microsoft Excel**

The current solution is Microsoft Excel. Although the Excel method works, it is very confusing and requires skill and experience. It would be very difficult for someone else to manage this system other than its current manager, who supplies the spreadsheets to several departments for use. Also, Excel is not relational and must be manipulated by the user constantly, risking data loss. If things were shifted improperly or put out of place this could cause the entire current system to fail. They currently solve this problem by only making adjustments once a year. This makes their system very inflexible, but for good reason. This system is electronic and cheaper than the old software, making it a better choice than either of the old systems. These spreadsheets can be printed, providing the training officers and the volunteer departments with reports regarding the current state of training at the department. Nothing would need to be changed or done to implement this system, as it is already in use.

## **Halon System**

Lastly, the final solution is software created by Halon. This software would have relational data, which was listed as a big improvement over Microsoft Excel by the training officers. This software would be offered free of charge to the volunteer departments, making it a better choice than the old software. With a scanner it is possible that any forms that are not available in the Halon software can be digitized and stored until a new form can be devised for the software. It would be an electronic, web based solution, making it far better than a paper-based solution. This software has not yet been developed and is still in the design phase. It could be several months before it could be fully implemented. In order to implement the software the software will need to be completely developed, tested, and debugged, users will need to be trained, and the database will need to be managed as needs arise from the fire departments. This process will take time and will require support and input from the volunteer departments training officers.

## **System Recommendations**

The current system used by the Fire Departments is not an effective way to accomplish the task of documenting training required for volunteer firefighters. There are four alternatives for solving this problem. However, we recommend using software created by Halon to fix the issues. Compared to other alternatives this solution is the most viable option. The software to be created by Halon will be better technically, economically, and operationally. The Halon software will be much more efficient than documenting all the forms on paper and constantly updating and maintaining the documentation on an excel spreadsheet. Creating, filling, and filing forms on paper can be very tedious, redundant, and in the long run expensive due to expense of ink and printer paper. Maintaining the excel spreadsheet is relatively cheap, but there is a lot of room for error and it takes a lot of time shifting and manipulating the sheet every time a change needs to be made. The excel spreadsheet is also only currently handled by one worker. If he was unable to continue updating the spreadsheet it would take a very long time for someone else to learn the system and functionality of it. These two options would work, but are not the best way to handle the information. The other option we do not recommend is the previous software used by the firehouse. In the past this software has worked, however it is very expensive and outdated. The software cost the volunteer fire department approximately \$800 initially and a \$300 fee every year thereafter for maintenance. Being a volunteer firehouse means that funds are very limited and the money they receive is barely enough to cover all the expenses the department encounters, not including the software. On top of the software being expensive, it is also outdated. The software received its last major update years ago and was written in Visual Basic. Visual Basic is not necessarily a bad language, but it is not the best language to accomplish the department needs. A better language would be .NET or an ASP page that the Halon team can provide. Compared to its alternatives the software Halon can provide will be the most beneficial in all aspects. The software will be current and user-friendly. The Halon software will also be offered free of charge to the volunteer fire department. Minimum training will be required and implementation time will be very short. The development time will also be as soon as a few months, which will allow the department to continue to use their current system until it is completed. All the resources required for the development of the software are at hand and the Halon team has the experience to accomplish the task. In conclusion, the Halon software is the best option. It is better than filing the information on paper, maintaining an excel spreadsheet, and more affordable and current than previous software used by the fire department.

## **Summary**

The volunteer fire departments of Sebastian County are required to track their training information to supply to the state and insurance agencies. The systems they are currently using are insufficient to provide the data in a convenient manner.

The training officers of the volunteer departments are currently using Microsoft Excel spreadsheets and paper forms to document their training programs. These systems have obvious weaknesses. When we interviewed the training officers and the chiefs of the volunteer departments and found that many of the important issues they needed solve would be solved by Halon's solution. Halon's solution will solve many of their issues and alleviate many of the volunteer fire department's issues.

## Appendix A

# PROJECT CHARTER

## Project Name: VFD Training

**Project Sponsor:** Sebastian County Volunteer Fire Departments

**Project Manager:** Jesse Nicholson

**Team Name:** Halon

**Team Members:** DJ Sawyer Jesse Nicholson  
Hoang James Vo  
Hung Tran  
Ryan Timmerman

## Scope:

- Starts with training for a single volunteer fire department.
  - Could expand up to a state level database handling maintenance, training, fire reporting and equipment acquisition.

**Assumptions:** Forms provided by the VFDs will contain all necessary information to design and implement the project, barring a few minor details obtained through interviews and observations.

**Constraints/Thresholds:** Getting into contact with the correct Fire Department Personnel may be difficult at times. We will have until December 2013 to complete the Systems Proposal Document and Prototype, and until May 2014(6 months) to complete the entire project. There may not be anywhere in a volunteer department's budget for this particular project, making it difficult to install/host the program.

### **Deliverables:**

- Systems Proposal Document(December 2013)
  - Prototype system (December 2013)
  - VFD Training/DB system (May 2014)

**Signatures:**

  
Project Sponsor

Jesse Nickolson  
Project Manager

## Appendix B

# *VFD Training*

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## **Project Status Report**

Period: Week Ending November 2, 2013 (Week 1)

Project Manager: Jesse Nicholson

Team members: DJ Sawyer, Hung Tran, Ryan Timmerman, Hoang James Vo,  
Jesse Nicholson

### **Team meetings this Period:**

- October 28, 2013 – met for a short period after class, all were in attendance.
- October 30, 2013 – Everyone was in attendance for this meeting.

### **Accomplishments / Activity this Period:**

- Planned interviews, discussed project requirements and various points of contact among the VFD.
- Discussed project outline basics, began discussing who was willing to do what sections of the project.
- Completed Project Charter.

### **Scheduled Items missing target dates:**

- No items were scheduled to be completed, therefore nothing is behind schedule.

### **Scheduled Items Next Period:**

- Turn in Project Charter
- Conduct interviews
- Establish points of contact

### **Issues:**

- Points of contact may be difficult to reach at times.
- Discussed obtaining additional points of contact to solve above problem.

### **Changes to Schedule:**

- No slippages were experienced, project is proceeding on schedule.

# *VFD Training*

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## **Project Status Report**

Period: November 3, 2013 – November 9, 2013 (Week 2)

Project Manager: Jesse Nicholson

Team members: DJ Sawyer, Hung Tran, Ryan Timmerman, Hoang James Vo,  
Jesse Nicholson

### **Team meetings this Period:**

- November 5, 2013 – met with fire department contacts, Hoang James Vo (could not obtain a ride) and Ryan Timmerman (had class) were not in attendance.
- November 6, 2013 – Met during class, everybody was in attendance

### **Accomplishments / Activity this Period:**

- Performed interviews, obtained and digitized documentation, obtained points of contact.
- Discussed project schedule, handed out assignments and discussed possible issues.
- Began work on proposal, primarily cover page, title page, table of contents.
- Began work on Data Flow Diagrams, completed Context level and began level 0.
- Began work on ERD and data dictionaries.

### **Scheduled Items missing target dates:**

- No items are currently behind schedule.

### **Scheduled Items Next Period:**

- Work on and finish level 0 Data Flow Diagram, begin work on level 1.
- Work on and finish ERD.
- Begin and complete additional sections of the proposal.

### **Issues:**

- No issues arose this week.

### **Changes to Schedule:**

- Established general schedule.

Team Name: Halon(Firehouse)

Team Members: Jesse Nicholson, DJ Sawyer, Ryan Timmerman, Hung Tran, James Vo

Project Description: Create an automated system for the volunteer firefighter training for the departments of Sebastian county AR. The project is intended to reduce the amount of physical paperwork and manual recordkeeping done at the firehouse. This will provide them with an Electronic backup as well as improve the convenience of their current system. The project will be expanded as necessary to include additional files and forms as prior elements are completed.

Project Elements completed to date –

Cover Letter- complete, revisions may be needed

Title Page – complete, revisions may be needed

Table of contents – started, will be updated

Executive summary – no progress

Outline of systems study – no progress

Detailed results of systems study – no progress

Systems alternatives – explored, not yet written down

Systems analysts' recommendations – Begun writing

Appendices –

- a. Charter – completed, signed by Sebastian county chief of chiefs
- b. Status reports – up to date, will continue to be written
- c. Information gathering documentation – completed
- d. Data Flow Diagrams – completed context, level 0, begun level 1
- e. Data Descriptions – begun data dictionary, rudimentary ERD
- f. Process Specifications – no progress
- g. Input and output specifications – no progress should be mockup(screenshots)

# *VFD Training*

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## **Project Status Report**

Period: November 10, 2013 – November 16, 2013 (Week 2)

Project Manager: Jesse Nicholson

Team members: DJ Sawyer, Hung Tran, Ryan Timmerman, Hoang James Vo,  
Jesse Nicholson

### **Team meetings this Period:**

- November 11, 2013 – met after class, everyone was in attendance.
- November 13, 2013 – Met during class, everybody was in attendance

### **Accomplishments / Activity this Period:**

- Finish level 0 Data Flow Diagram, began work on level 1.
- Worked on Data Dictionary, began ERD.
- Began more sections of the proposal

### **Scheduled Items missing target dates:**

- Nothing behind schedule.

### **Scheduled Items Next Period:**

- Begin additional sections of the proposal.
- Work on ERD and Data Dictionary
- Work on Level 1 Data Flow Diagram
- 

### **Issues:**

- No issues arose this week.

### **Changes to Schedule:**

- Added new scheduled items for next period.

# *VFD Training*

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## **Project Status Report**

Period: November 17, 2013 – November 23, 2013 (Week 4)

Project Manager: Jesse Nicholson

Team members: DJ Sawyer, Hung Tran, Ryan Timmerman, Hoang James Vo,  
Jesse Nicholson

### **Team meetings this Period:**

- November 18, 2013 – met in class, everyone was in attendance.
- November 20, 2013 – Met during class, everybody was in attendance
- November 21, 2013 – Met with VFD Chiefs, Ryan, DJ and James were in Attendance

### **Accomplishments / Activity this Period:**

- \* Finished work on level 1 Data Flow Diagrams.
- \* Worked on Data Dictionary, began ERD.
- \* Began more sections of the proposal

### **Scheduled Items missing target dates:**

- \* Nothing behind schedule.

### **Scheduled Items Next Period:**

- \* Finish and assemble proposal documents.
- \* Work on ERD and Data Dictionary
- \* Work on Process Specifications

### **Issues:**

- \* No issues arose this week.

# *VFD Training*

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## **Changes to Schedule:**

- \* Added new scheduled items for next period.

# *VFD Training*

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## **Project Status Report**

Period: November 24, 2013 – November 30, 2013 (Week 5)

Project Manager: Jesse Nicholson

Team members: DJ Sawyer, Hung Tran, Ryan Timmerman, Hoang James Vo,  
Jesse Nicholson

### **Team meetings this Period:**

- November 26, 2013 – met in class, everyone was in attendance.

### **Accomplishments / Activity this Period:**

- Finished work on level 1 Data Flow Diagrams.
- Worked on Process Specifications
- Finished ERD and Data Dictionary

### **Scheduled Items missing target dates:**

- Nothing behind schedule.

### **Scheduled Items Next Period:**

- Finish Proposal.
- Work on Presentation

### **Issues:**

- No issues arose this week.

### **Changes to Schedule:**

- Added new scheduled items for next period.

## Appendix C

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

### SECTION I – PERSONAL DATA

Name \_\_\_\_\_, \_\_\_\_\_ Last \_\_\_\_\_ First \_\_\_\_\_ M. I. \_\_\_\_\_ Social Security Number \_\_\_\_\_  
Address \_\_\_\_\_

(Number & Street, City, State, Zip Code)

County \_\_\_\_\_ E-mail Address \_\_\_\_\_

E-mail is • Business • Home • Other

Telephone No. Home (\_\_\_\_) \_\_\_\_\_ Cellular (\_\_\_\_) \_\_\_\_\_

Business(\_\_\_\_) \_\_\_\_\_

### SECTION II – CERTIFICATION

1. • Yes • No Firefighter Certification? Issued by \_\_\_\_\_

Number \_\_\_\_\_ Issue Date \_\_\_\_\_ Expiration Date \_\_\_\_\_ State \_\_\_\_\_

2. • Yes • No EMT/Paramedic Certification? Issued by \_\_\_\_\_

Number \_\_\_\_\_ Issue Date \_\_\_\_\_ Expiration Date \_\_\_\_\_ State \_\_\_\_\_

3. • Yes • No Have you ever had a State or County Emergency Medical Technician (EMT), Paramedic, or Firefighter certification suspended, revoked, or terminated?

If yes, explain in detail including

dates: \_\_\_\_\_  
\_\_\_\_\_

4. • Yes • No Have you ever been the subject of an investigation regarding one of your certifications **OR for any reason as a firefighter?**

If yes, explain in detail including dates:

### SECTION III – EDUCATIONAL BACKGROUND

1. High School (Name & address)

Diploma \_\_\_\_\_ yes \_\_\_\_\_ no From \_\_\_\_\_ To \_\_\_\_\_

2. College (Name & address)

Degree \_\_\_\_\_ yes \_\_\_\_\_ no From \_\_\_\_\_ To \_\_\_\_\_

Type \_\_\_\_\_

Credits \_\_\_\_\_ number obtained to date

### SECTION IV – VOLUNTEER RELATED ACTIVITIES

List all fire related volunteer activities past and present, i.e. Fire Auxiliary. Please list consecutively.

1. Organization (Name & address)

Position/Title \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Supervisor Name \_\_\_\_\_ Phone # \_\_\_\_\_

Average hours per work \_\_\_\_\_

2. Organization (Name & address)

Position/Title \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Supervisor Name \_\_\_\_\_ Phone # \_\_\_\_\_

Average hours per work \_\_\_\_\_

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

### SECTION V – MOTOR VEHICLE DRIVER LICENSE

If you have been licensed to drive in the State of Arkansas less than five (5) years, or not at all, list ALL other states or countries you have been permitted/licensed to drive in for the last five years.

1. • Yes • No Do you have a valid Arkansas driver license?

2. • Yes • No Have you ever had another state or country driver license?

3. State or Country \_\_\_\_\_ License # \_\_\_\_\_  
Class/Endorsements \_\_\_\_\_

4. State or Country \_\_\_\_\_ License # \_\_\_\_\_  
Class/Endorsements \_\_\_\_\_

### SECTION VI – REFERENCES

Determination of good moral character is a pre-employment requirement that must be met prior to initial employment as a firefighter in compliance with Arkansas. Please furnish a minimum of three (3) references.. **DO NOT LIST relatives or previous employers, and references cannot be related to each other.**

Current or past neighbors can be used as references, as long as they are not part of the minimum (3) references. References must have known you at least (4) years and must possess sufficient information concerning your suitability for employment sought and employment in general. **Give city name, zip code, & telephone number with area code.**

1. Name \_\_\_\_\_

Occupation \_\_\_\_\_ How long known? \_\_\_\_\_  
Home address \_\_\_\_\_

City State Zip  
Business address

Number & Street City State Zip  
Telephone No. Home (\_\_\_\_\_) \_\_\_\_\_ Business (\_\_\_\_\_) \_\_\_\_\_

2. Name \_\_\_\_\_  
Occupation \_\_\_\_\_ How long known? \_\_\_\_\_  
Home address \_\_\_\_\_

City State Zip  
Business address

City State Zip  
Telephone No. Home (\_\_\_\_\_) \_\_\_\_\_ Business (\_\_\_\_\_) \_\_\_\_\_

3. Name \_\_\_\_\_  
Occupation \_\_\_\_\_ How long known? \_\_\_\_\_  
Home address \_\_\_\_\_

City State Zip  
Business address

City State Zip  
Telephone No. Home (\_\_\_\_\_) \_\_\_\_\_ Business (\_\_\_\_\_) \_\_\_\_\_

## ARKANSAS FIRE TRAINING ACADEMY

## Application for Admission

## PERSONAL INFORMATION

NAME (Last, First, Middle)

HOME ADDRESS (Number & Street or Box, City, State, Zip)	PHONE NUMBERS	DATE OF BIRTH (Mo, Day, Yr)	
	WORK	SOCIAL SECURITY NO.	
		HOME	SEX
	OTHER:	MALE	FEMALE

PLEASE CHECK THE RACE/NATIONAL ORIGIN WHICH BEST APPLIES TO YOU:

Caucasian      Black      Asian      Hispanic      Indian

HIGH SCHOOL or GED?      CIRCLE NUMBER FOR HIGHEST LEVEL OF FORMAL EDUCATION:

 YES NO

High School 9 10 11 12 College 13 14 15 16 Post Graduate 17 18 19 20

DO YOU HAVE ANY HANDICAPS (INCLUDING SPECIAL ALLERGIES OR MEDICAL CONDITIONS) WHICH WOULD REQUIRE  
SPECIAL CONSIDERATION DURING YOUR ATTENDANCE AT AFTA? NO       YES (If "YES", explain here.)

## COURSE INFORMATION

ENTER THE COURSE YOU WISH TO TAKE: (Name, Location &amp; Date)

Name of Course:

Course Location:

Date of Course:

ENTER THE COURSE(S) YOU THINK MEET THE PREREQUISITES OF THE ABOVE COURSE:

Name of Course:

Course Location:

Date of Course:

## ORGANIZATIONAL INFORMATION

FDID NUMBER:      NAME OF FIRE DEPARTMENT      DEPT. TELEPHONE NO.

FULL DEPARTMENT ADDRESS:      APPROVAL BY CHIEF OR TRAINING OFFICER:

SIGNATURE:

DATE:

TITLE:

I CERTIFY THAT THE INFORMATION RECORDED ON THIS APPLICATION IS CORRECT. I AGREE TO ABIDE BY THE RULES AND POLICIES OF THE ARKANSAS FIRE TRAINING ACADEMY IF I AM ADMITTED AS A STUDENT. FALSIFICATION OF INFORMATION MAY RESULT IN DENIAL OF ADMISSION. NO STUDENT UNDER THE AGE OF 18 WILL BE ADMITTED TO CLASS.

BY SIGNING THIS APPLICATION, THE STUDENT AGREES TO ALLOW THE ACADEMY TO MAIL THE CERTIFICATE TO HIS/HER DEPARTMENT. AFTER THAT TIME, THE RELEASE OF INFORMATION ABOUT COMPLETION OF THIS COURSE AND CREDIT FOR IT WILL BE MADE ONLY UPON SIGNED PERMISSION BY THE STUDENT.

I UNDERSTAND THAT THE ARKANSAS FIRE TRAINING ACADEMY DOES NOT PROVIDE MEDICAL OR HEALTH INSURANCE FOR STUDENTS. I MAINTAIN APPROPRIATE INSURANCE ON AN INDIVIDUAL BASIS.

SIGNATURE OF STUDENT:

DATE:

DISPOSITION:

(Enrollment Division Use Only)

ACCEPTED

REJECTED

REASON \_\_\_\_\_

Signature

Date



## Off Campus Class Request Form

Class Requested: \_\_\_\_\_ Date of Request: \_\_\_\_\_

Fire Department Requesting Class: \_\_\_\_\_

Fire Department Mailing Address: \* \_\_\_\_\_

Class Requested by: \_\_\_\_\_  
(Chief, Dept. Training officer, Fire Service Coordinator, AFA Staff)

Home #:\* \_\_\_\_\_ Work #:\* \_\_\_\_\_ Cell #:\* \_\_\_\_\_

Fax # \* \_\_\_\_\_

Class Location: \_\_\_\_\_ Region: \_\_\_\_\_

Date(s) Class to be held: \_\_\_\_\_ Start Time(s): \_\_\_\_\_

County: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

Do you have a qualified instructor (not paid by AFA) in  
your department to teach this class? YES \_\_\_\_\_ NO \_\_\_\_\_

If yes, do you need the teaching material? YES \_\_\_\_\_ NO \_\_\_\_\_

Address where material is to be sent: \_\_\_\_\_

Instructor's name: \_\_\_\_\_

Does the Arkansas Fire Academy need to provide an  
adjunct (Instructor paid by AFA) to teach this class? YES \_\_\_\_\_ NO \_\_\_\_\_

Instructor Requested: \_\_\_\_\_

\* Required information

\_\_\_\_\_  
Signature of Requesting Person

**Please complete and return to:**

**Arkansas Fire Academy**

**ATTN: Kilatha Steelman**

**P. O. Box 3499**

**Camden, AR 71711**

**Tel: (870) 574-1521 Fax: (870) 574-0817**

**NOTE:** Completed roster is to be submitted to the Arkansas Fire Academy no later than two (2) weeks after the date the class is completed. Applications need to be submitted at least two weeks prior to the start date of class.

# ARKANSAS FIRE ACADEMY

Southern Arkansas University Tech  
P.O. Box 3499, Camden, AR 71711 (870) 574-1521

## REPORT OF FIRE TRAINING COURSE

*Please Print or Type Information*

COURSE NAME	COURSE NO.	HOURS	DATE START
REGION	LOCATION	DATE ENDED	

### MEMBERS ENROLLED IN COURSE

SOC.SEC.NO.	LAST NAME	FIRST NAME	M.I.	D.O.B.	DEPT.	FDID
1						
2						
3						
4						
5						
6						
7						
8						
9						
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27						
28						
29						

INSTRUCTOR

PLEASE PRINT OR TYPE NAME \_\_\_\_\_

SSN

\_\_\_\_\_

Print Form

REV. 7-8-02

## INDIVIDUAL TRAINING RECORDS

NAME: JORDAN WILEYPOSITION: FIREFIGHTER (TRINNEE)

REQUIRED TRAINING: DATE

1. INTRO TO FIREFIGHTING: 25 Oct 20092. PROTECTIVE EQUIPMENT : 22 Nov 20093. WILD LAND FIRE SUPPRESSION: 19 May 2009

## LOCAL TRAINING:

DATE	COURSE/TRAINING	INSTRUCTOR
19 May 09	WILD LAND FIRE SUPPRESSION	AARONNE HARRELL
28 May 09	Pipeline Awareness	MIKE GOWEN 2 HRS
25 Oct 09	Module 1 INTRO	TODD JOHNSON 16 HRS
22 Nov 09	Personal Protective Equip	TODD JOHNSON 16 HRS
19 Jan 10	Module 2 Personal Protective Equip	JOHN MAY 16 HRS
24 Jan 10	Module 3 Fire Hose	TODD JOHNSON 16 HRS
21 Feb 10	Module 4 LADDERS	CHARLES MITCHELL 16 HRS
13 Mar 10	Module 13 Auto Extrication	JAMES SHARUM 8 HRS
23 Mar 10	Module 11 EMS 1st RESP	MARTY NELSON 80 HRS
13 FEB 10	Hazardous Materials Awareness	LAMKIN 4 HRS
5 Jun 10	Driver/Operator Mod 1	PETE DARRON 16 HRS
20 May 10	Pipeline Awareness	MIKE GOWEN 2 HR
20 Feb 11	Module 4 Ladders	Todd Johnson 16 HRS
6 May 11	EMT	Mironda Higgins 176 hrs
10 Apr 11	Module 3 Fire hose	Todd Johnson 16 hrs
11 Dec 2011	Mod 1 INSTRUCTIONAL METHODOLOGY	Ronnie Myers 16 Hrs.
26 Feb 12	Mod 2 PPE	14 Jordan Wiley
25 May 12	I-100,S-110,S-130,S-140,L-110,	40 James Brignac
17 May 12	Pipeline Awareness	2 MIKE GOWEN
2 May 12	Mod 2 PPE	16 Jordan Wiley

**Volunteer Fire Department**  
***Firefighter Statement of Health***

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_ - \_\_\_\_ - \_\_\_\_  
(Last)                   (First)                   (MI)

Address: \_\_\_\_\_ Soc. Sec. #: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

City: \_\_\_\_\_ St: \_\_\_\_\_ Zip: \_\_\_\_\_

**Phone (H):** \_\_\_\_\_

In case of emergency contact: \_\_\_\_\_  
(Name) \_\_\_\_\_ (Phone) \_\_\_\_\_

As of the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_, I \_\_\_\_\_  
hereby certify that I do not have any medical or other related problems that would prevent  
me from fulfilling my duties within the \_\_\_\_\_ Volunteer Fire Department.

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

**Training Officer:**

How comfortable are you with the current system?

trouble some to fill out

Department code.

QR

MW

What could be a feature that you wish to be implemented? And why?

- **Flexible**, add classes. If a person is out of the system, track In house training, to fall <sup>in</sup> ~~fall~~ <sup>in</sup> ~~fall~~ in the rest of the system, QR <sup>need</sup> up

Do you face any difficulty or inconvenience with the current system?

- ~ Attendance sheet
- ~ Gear

. Ability to print out the file paper & classes

Describe the process of the current system to update or add new data.

Color is important  
(Green is good, Red is  
intolerable)

How often do you access the system? And during what time usually?

How long does it typically take to fill out the reports?

What information is provided by the volunteer and what information is supplied by the firehouse?

When and where are these forms completed?

Who is involved in the completion of the forms?

What other details/suggestions would you like to share with us?

221-6B 00

Duane Logsdon

dlogsdon1@gmail.com

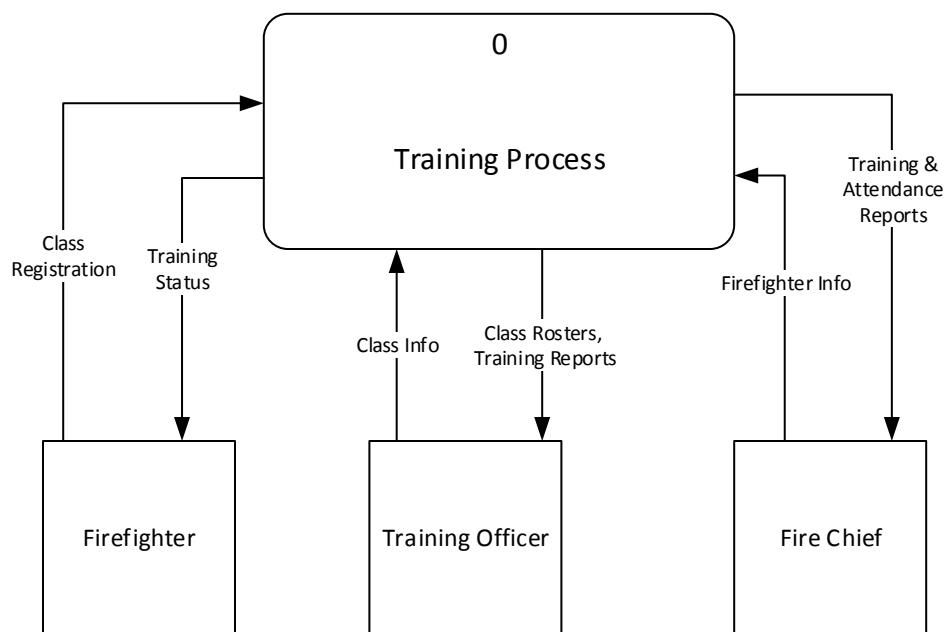
Gary Lawrence

479-414-1732 huntingforchild@yahoo.com

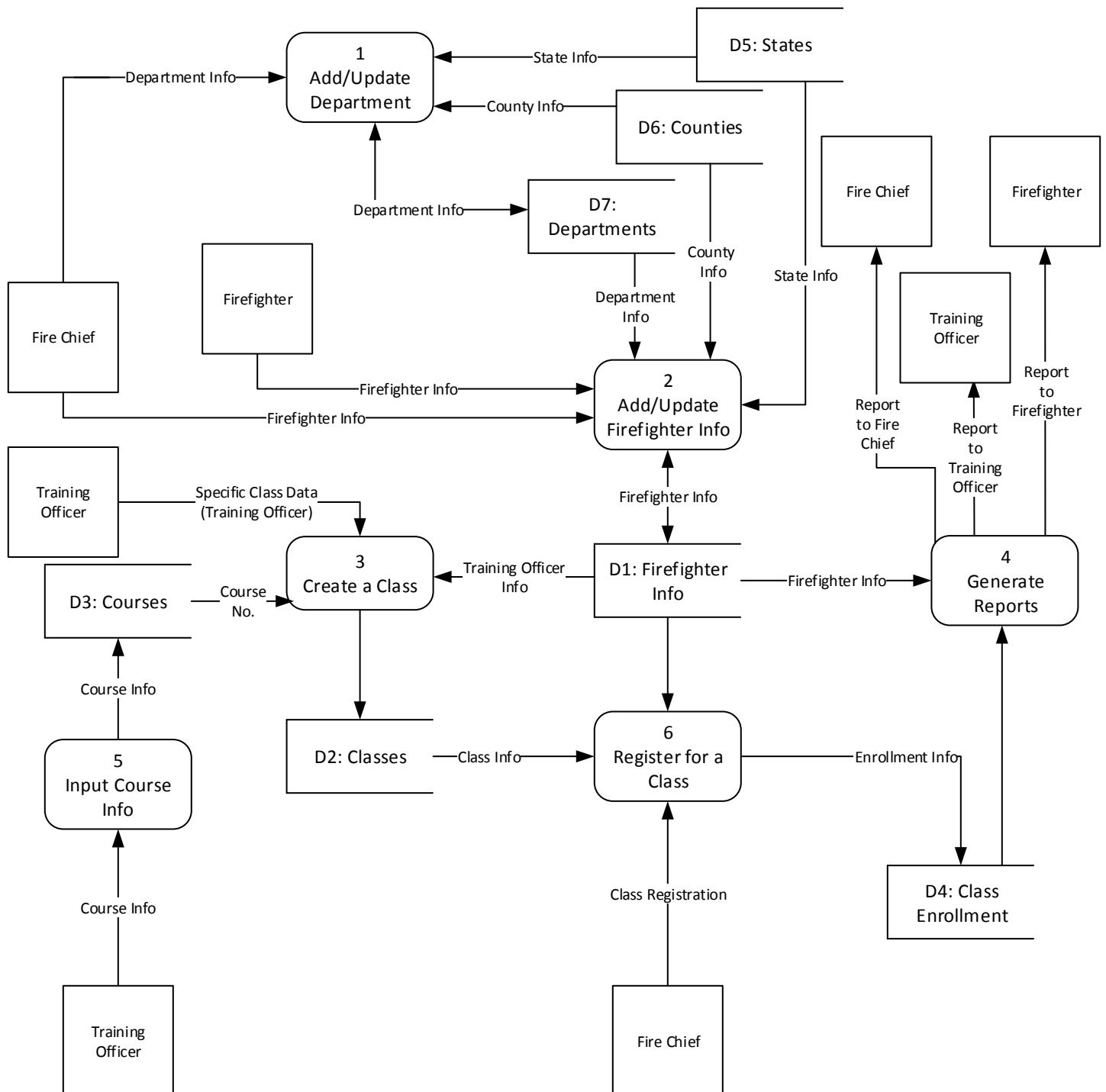
- Classes with the same name taken the same year don't count
- October notifications need to be sent no matter
- Over 16 carries to next year but only next year, transfers count first.
- Vehicle training kept separate.
- Some training expire
- Any training counts toward fire
- Medical kept separate with its own required
- Track first responders
- Track Clinicals
- Training class output require Instructor SSI  
(maybe trainee)

## Appendix D

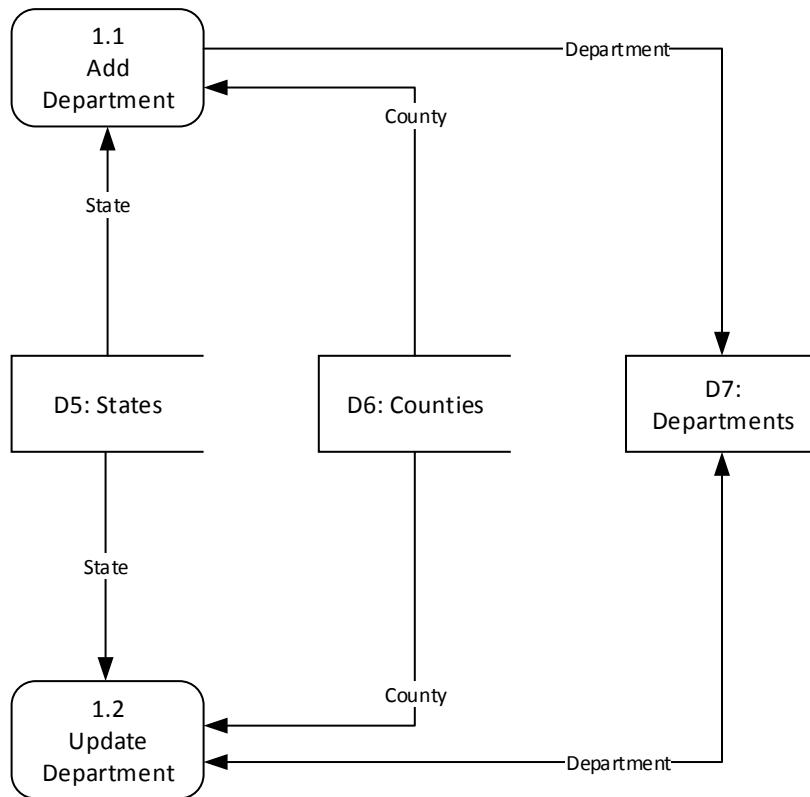
# Context Level Data Flow Diagram



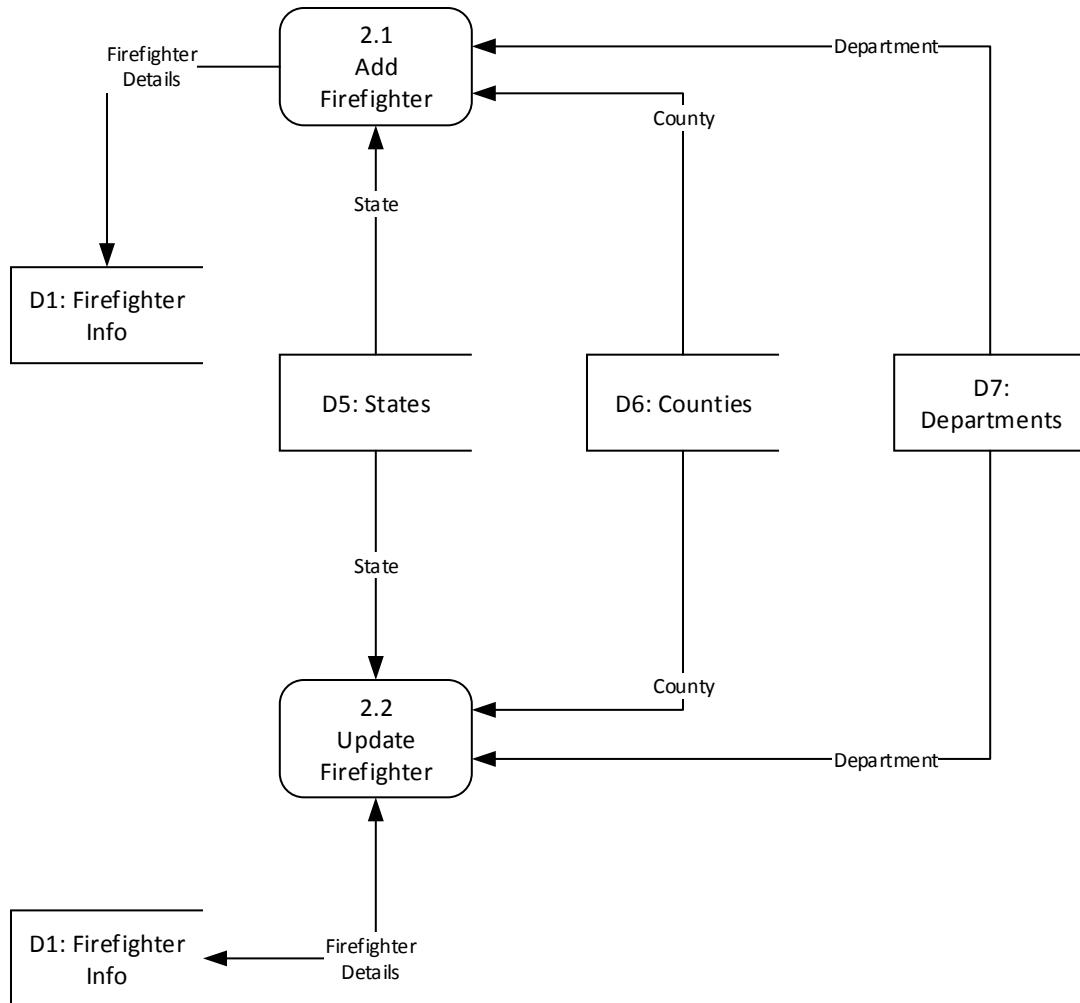
# Level 0 Data Flow Diagram



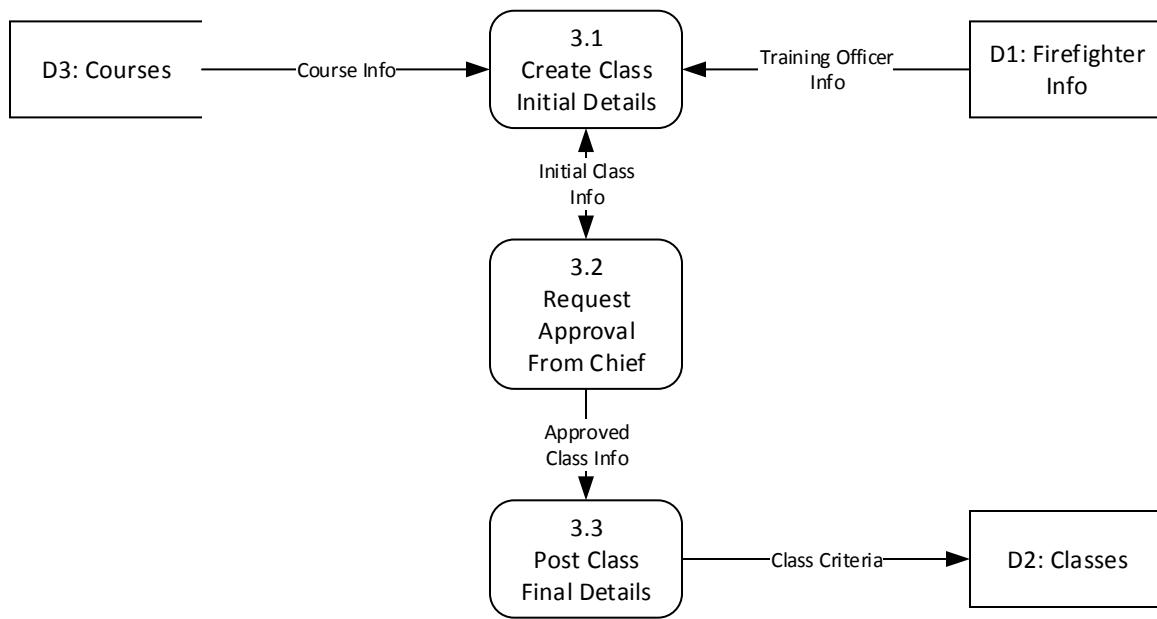
# Level 1.1 Data Flow Diagram



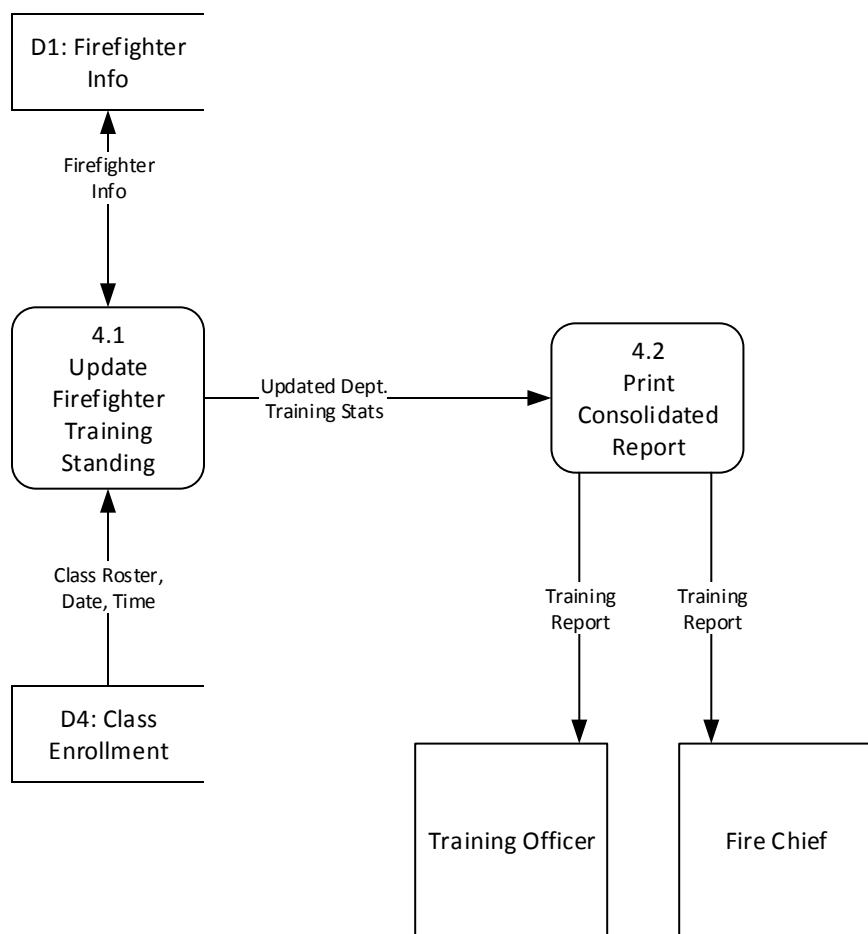
# Level 1.2 Data Flow Diagram



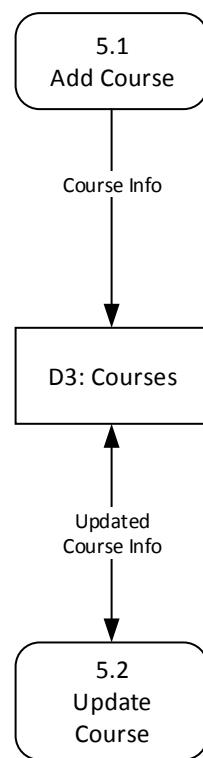
# Level 1.3 Data Flow Diagram



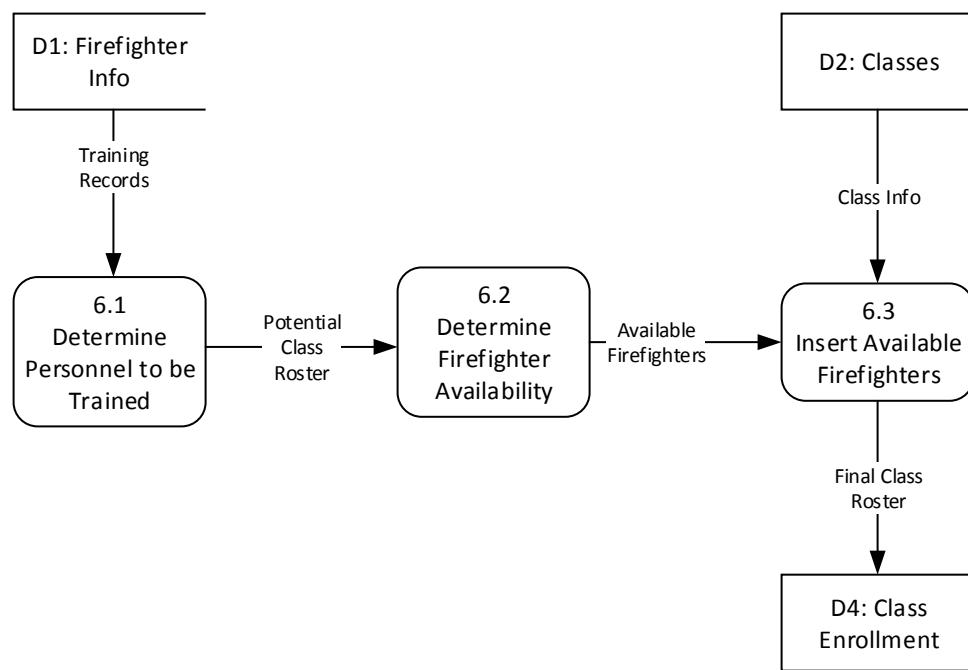
# Level 1.4 Data Flow Diagram



# Level 1.5 Data Flow Diagram

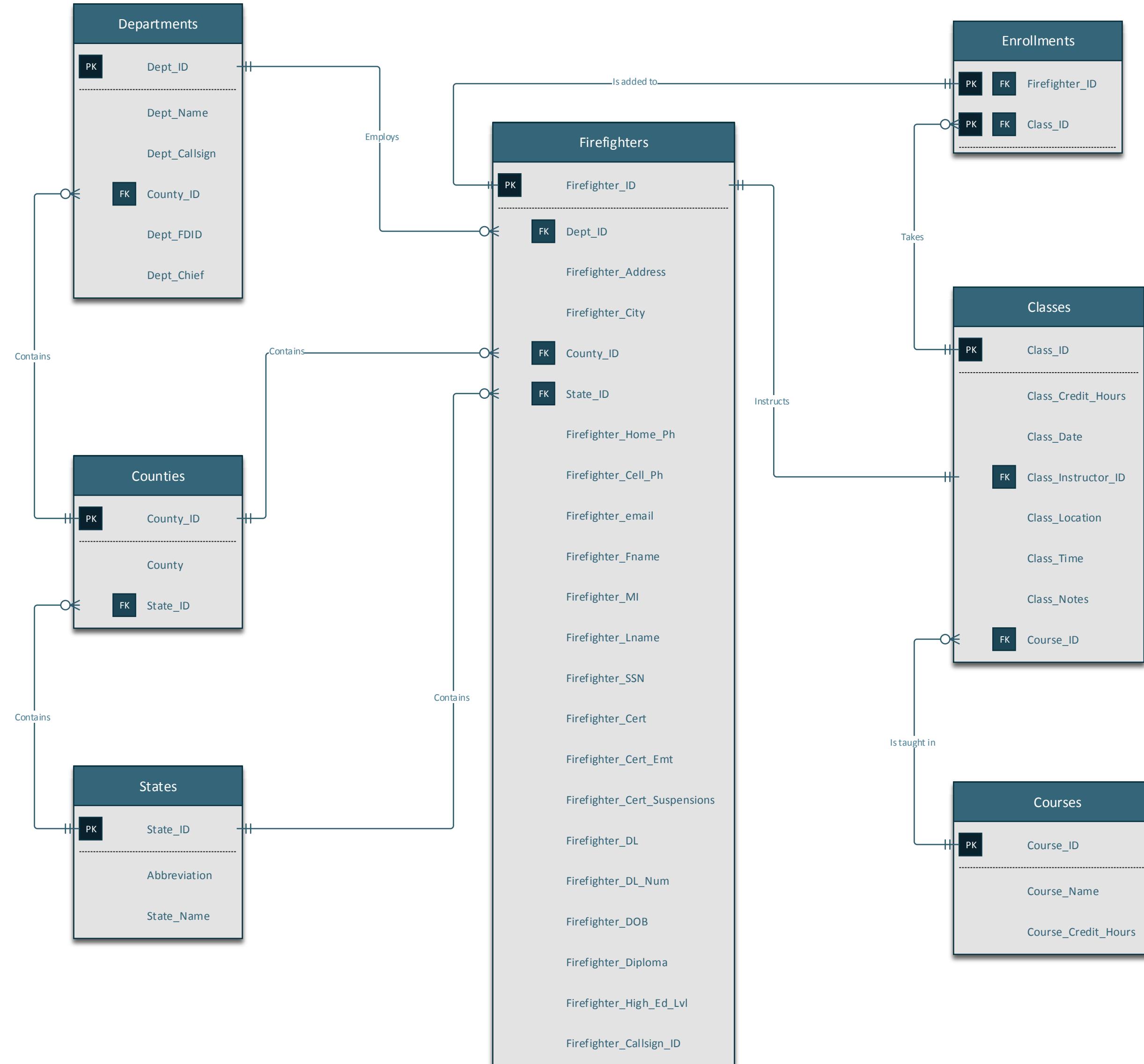


# Level 1.6 Data Flow Diagram



## Appendix E

# Entity Relationship Diagram



## DATA FLOW DESCRIPTION

Name: Department Info

Description: Contains department information and is used to update existing or add new department

Source:

- Fire Chief
- Process 1: Add/Update Department
- D7: Departments

Destination:

- Process 1: Add/Update Department
- D7: Departments
- Process 2: Add/Update Firefighter Info

Type of data flow

Table/File     Screen    Report    Form    Internal

Data Flow Composition (elements):

- Fire Department ID Number
- Fire Department Name
- Fire Department Phone Number
- Fire Department Address

Volume/Time

1/when a new/update change  
need to be made.

Comments: Fire department information can be collected in the form of paper forms or input from screen.

DATA FLOW DESCRIPTION	
Name: State Info	
Description: Contains state information and is used to update existing or add new department. And in turn, update the state information if there are any changes.	
Source: D5: <ul style="list-style-type: none"> <li>- States</li> <li>- Process 1: Add/Update department</li> <li>- D5: States</li> </ul>	Destination: <ul style="list-style-type: none"> <li>- Process 1: Add/Update Department</li> <li>- D5: States</li> <li>- Process 2: Add/Update Firefighter Info</li> </ul>
Type of data flow <input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
Data Flow Composition (elements): <ul style="list-style-type: none"> <li>- State ID</li> <li>- State Abbreviation</li> <li>- State Full Name</li> </ul>	Volume/Time 1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: County Info	Description: Contains county information and is used to update existing or add new department. And in turn, update the Counties information if there are any changes.
<p>Source:</p> <ul style="list-style-type: none"> <li>- D6: Counties ,</li> <li>- Process 1: Add/Update department</li> <li>- D6: Counties</li> </ul> <p>Destination:</p> <ul style="list-style-type: none"> <li>- Process 1: Add/Update Department</li> <li>- D6: Counties</li> <li>- Process 2: Add/Update Firefighter Info</li> </ul>	
<p>Type of data flow</p> <input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
<p>Data Flow Composition (elements):</p> <ul style="list-style-type: none"> <li>- County ID</li> <li>- County Name</li> <li>- State ID</li> </ul>	
<p>Comments: Fire department information can be collected in the form of paper forms or input from screen.</p>	

DATA FLOW DESCRIPTION	
Name: Firefighter Info	
Description: Contains state information and is used to update existing or add new department. And in turn, update the state information if there are any changes.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Firefighter</li> <li>- Process 2: Add/Update Firefighter Info</li> <li>- D1: Firefighter Info</li> <li>- D1: Firefighter Info</li> <li>- D1: Firefighter Info</li> </ul>	<ul style="list-style-type: none"> <li>- Process 2: Add/Update Firefighter Info</li> <li>- D1: Firefighter Info</li> <li>- Process 2: Add/Update Firefighter Info</li> <li>- Process 4: Generate Reports</li> <li>- Process 6: Register for a class</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Specific Class Data	
Description: The training officer provides information to create a class.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Training Officer</li> </ul>	<ul style="list-style-type: none"> <li>- Process 3: Create a Class</li> </ul>
Type of data flow <input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form    Internal	
Data Flow Composition (elements):	Volume/Time 1/when a new/update change need to be made.
<ul style="list-style-type: none"> <li>- Class Date</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> </ul>	
Comments: Class information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Training Officer Info	
Description: Training Officer information is being pulled from database to create a class.	
Source: - D1: Firefighter Info	Destination: - Process 3: Create a Class
Type of data flow <input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements): - Instructor ID	Volume/Time 1/when a new/update change need to be made.
Comments:	

DATA FLOW DESCRIPTION	
Name: Course Info	
Description: Contains course information to add/update certain process.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Training Officer</li> <li>- Process 5: Input Course Info</li> <li>- D3: Courses</li> </ul>	<ul style="list-style-type: none"> <li>- Process 5: Input Course Info</li> <li>- D3: Courses</li> <li>- Process 3: Create a Class</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Course ID</li> <li>- Course Name</li> <li>- Course Credits</li> </ul>	1/when a new/update change need to be made.
Comments: Course information can be collected in the form of paper forms or input from screen, and could be transferred internally.	

DATA FLOW DESCRIPTION	
Name: Class Info	
Description: Contains Class Information from the database to a process.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 3: Create a class</li> <li>- D2: Class Info</li> </ul>	<ul style="list-style-type: none"> <li>- D2: Class Info</li> <li>- Process 6: Register for a Class</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Class ID</li> <li>- Class Name</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> <li>- Instructor ID</li> <li>- Class Date</li> <li>- Course ID</li> </ul>	1/when a new/update change need to be made.
Comments:	

DATA FLOW DESCRIPTION	
Name: Class Registration	
Description: Fire Chief selects and registers for a class to be taught.	
Source:	Destination:
- Fire Chief	- Process 6: Register for a Class
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form    Internal	
Data Flow Composition (elements):	Volume/Time
- Class Documentations	1/when a new/update change need to be made.
Comments: Class information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Enrollment Info	
Description: Process of saving the class being registered for enrollment.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 6: Register for a class</li> <li>- D4: Class Enrollment</li> </ul>	<ul style="list-style-type: none"> <li>- D4: Class Enrollment</li> <li>- Process 4: Generate Reports</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time 1/when a new/update change need to be made.
Comments:	

DATA FLOW DESCRIPTION	
Name: Report to Fire Chief	
Description: Process of printing out information to the specified officer.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 4: Generate Reports</li> </ul>	<ul style="list-style-type: none"> <li>- Fire Chief</li> <li>- Training Officer</li> <li>- Firefighter</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input checked="" type="checkbox"/> Report      Form      Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Class ID</li> <li>- Class Credits</li> <li>- Class Name</li> <li>- Instructor ID</li> <li>- Class Location</li> <li>- Class Date</li> </ul>	3 reports/ class enrollment.
Comments:	

## DATA FLOW DESCRIPTION

Name: Department Info

Description: Contains department information and is used to update existing or add new department

Source:

- D7: Departments
- Process 1.1.1: Add Department

Destination:

- Process 1.1.2: Update Department
- D7: Departments

Type of data flow

Table/File     Screen    Report    Form    Internal

Data Flow Composition (elements):

- Fire Department ID Number
- Fire Department Name
- Fire Department Phone Number
- Fire Department Address

Volume/Time

1/when a new/update change  
need to be made.

Comments: Fire department information can be collected in the form of paper forms or input from screen.

DATA FLOW DESCRIPTION	
Name: State Info	
Description: Contains state information and is used to update existing or add new department. And in turn, update the state information if there are any changes.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D5: States</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.1.1: Add Department</li> <li>- Process 1.1.2: Update Department</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time 1/when a new/update change need to be made.
<ul style="list-style-type: none"> <li>- State ID</li> <li>- State Abbreviation</li> <li>- State Full Name</li> </ul>	
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: County Info	
Description: Contains county information and is used to update existing or add new department. And in turn, update the Counties information if there are any changes.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D6: Counties</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.1.1: Add Department</li> <li>- Process 1.1.2: Update Department</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- County ID</li> <li>- County Name</li> <li>- State ID</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

## DATA FLOW DESCRIPTION

Name: Department Info

Description: Contains department information and is used to update existing or add new firefighter

Source:

- D7: Departments

Destination:

- Process 1.2.1: Add Firefighter
- Process 1.2.2: Update Firefighter

Type of data flow

Table/File     Screen    Report    Form    Internal

Data Flow Composition (elements):

- Fire Department ID Number
- Fire Department Name
- Fire Department Phone Number
- Fire Department Address

Volume/Time

1/when a new/update change  
need to be made.

Comments: Fire department information can be collected in the form of paper forms or input from screen.

DATA FLOW DESCRIPTION	
Name: State Info	
Description: Contains state information and is used to update existing or add new firefighter.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D5: States</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.2.1: Add Firefighter</li> <li>- Process 1.2.2: Update Firefighter</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- State ID</li> <li>- State Abbreviation</li> <li>- State Full Name</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: County Info	
Description: Contains county information and is used to update existing or add new firefighter.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D6: Counties</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.2.1: Add Firefighter</li> <li>- Process 1.2.2: Update Firefighter</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- County ID</li> <li>- County Name</li> <li>- State ID</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Firefighter Info	
Description: Contains state information and is used to update existing or add new department. And in turn, update the state information if there are any changes.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.2.1: Add Firefighter</li> <li>- D1: Firefighter Info</li> <li>- Process 1.2.2: Update Firefighter</li> </ul>	<ul style="list-style-type: none"> <li>- D1: Firefighter Info</li> <li>- Process 1.2.2: Update Firefighter</li> <li>- D1: Firefighter Info</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Training Officer Info	
Description: The training officer provides information to create a class.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Training Officer</li> </ul>	<ul style="list-style-type: none"> <li>- Process 3: Create a Class</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input type="checkbox"/> Internal	
Data Flow Composition (elements): <ul style="list-style-type: none"> <li>- Class Date</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> </ul>	
Volume/Time 1/when a new/update change need to be made.	
Comments: Class information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Initial Class Info	
Description: Class information gets initialized.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.3.1: Create Class Initial Details</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.3.2: Request Approval From Chief</li> </ul>
Type of data flow <input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time 1/class initialization
Comments: Class information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Approval Class Info	
Description: The class info is authorized and finalized	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.3.2: Request Approval From Chief</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.3.3: Post Class Final Details</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form    Internal	
Data Flow Composition (elements):	Volume/Time 1/class
<ul style="list-style-type: none"> <li>- Class Date</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> </ul>	
Comments: Class information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Class Info	
Description: Contains Class Information from the database to a process.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.3.3</li> </ul>	<ul style="list-style-type: none"> <li>- D2: Class Info</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements): <ul style="list-style-type: none"> <li>- Class ID</li> <li>- Class Name</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> <li>- Instructor ID</li> <li>- Class Date</li> <li>- Course ID</li> </ul>	
Comments:	

DATA FLOW DESCRIPTION	
Name: Class Roster, Date, Time	
Description: Process of getting enrollment information to update firefighter standing.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D4: Class Enrollment</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.4.1 : Update Firefighter Training Standing</li> </ul>
Type of data flow <input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time 1/when a new/update change need to be made.
Comments:	

DATA FLOW DESCRIPTION	
Name: Firefighter Info	
Description: Contains state information and is used to update existing or add new department. And in turn, update the state information if there are any changes.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D1: Firefighter Info</li> <li>- Process 1.4.1: Update Firefighter Training Standing</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.4.1: Update Firefighter Training Standing</li> <li>- D1: Firefighter Info</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Updated Department Training Statistics	
Description: Transfer Updated information to printing process for viewing.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.4.1: Update Firefighter Training Standing</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.4.2: Print Consolidated Report</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> <li>- Class ID</li> <li>- Class Credits</li> <li>- Class Name</li> <li>- Instructor ID</li> <li>- Class Location</li> <li>- Class Date</li> </ul>	1/when a new/update change need to be made.

Comments:

DATA FLOW DESCRIPTION	
Name: Training Report	
Description: Giving printed updated report to Officers	
Source: - Process 1.4.2: Print Consolidated Reports	Destination: - Training Officer - Fire Chief
Type of data flow <input type="checkbox"/> Table/File      Screen <input checked="" type="checkbox"/> Report <input checked="" type="checkbox"/> Form      Internal	

<p>Data Flow Composition (elements):</p> <ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> <li>- Class ID</li> <li>- Class Credits</li> <li>- Class Name</li> <li>- Instructor ID</li> <li>- Class Location</li> <li>- Class Date</li> </ul>	<p>Volume/Time</p> <p>1/person</p>
<p>Comments:</p>	

DATA FLOW DESCRIPTION	
Name: Department Requirements	
Description: Contains course information that is required	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.5.1: Get Course Requirements From Chief</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.5.2: Meet With Training Personnel</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	
<ul style="list-style-type: none"> <li>- Course ID</li> <li>- Course Name</li> <li>- Course Credits</li> </ul>	Volume/Time 1/when a new/update change need to be made.
Comments: Course information can be collected in the form of paper forms or input from screen, and could be transferred internally.	

DATA FLOW DESCRIPTION	
Name: Course Requirements	
Description: Contains course information that is required	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.5.2: Meet With Training Personnel</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.5.3: Create Department Course</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Course ID</li> <li>- Course Name</li> <li>- Course Credits</li> </ul>	1/when a new/update change need to be made.
Comments: Course information can be collected in the form of paper forms or input from screen, and could be transferred internally.	

DATA FLOW DESCRIPTION	
Name: Course Requirements	
Description: Contains course information that is required	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.5.3: Create Department Course</li> </ul>	<ul style="list-style-type: none"> <li>- D3: Course</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Course ID</li> <li>- Course Name</li> <li>- Course Credits</li> </ul>	1/when a new/update change need to be made.
Comments: Course information can be collected in the form of paper forms or input from screen, and could be transferred internally.	

DATA FLOW DESCRIPTION	
Name: Training Records	
Description: Contains state information and is used to determine officer to be trained.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- D1: Firefighter Info</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.6.1: Determine Personnel to be Trained</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input checked="" type="checkbox"/> Screen <input type="checkbox"/> Report <input checked="" type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
<b>Data Flow Composition (elements):</b> <ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Potential Class Roster	
Description: Contains state information and is used to determine officer to be trained.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.6.1: Determine Personnel to be Trained</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.6.2: Determine Firefighter Availability</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
<b>Data Flow Composition (elements):</b> <ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	<b>Volume/Time</b> 1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Available Firefighters	
Description: Contains state information and is used to determine officer to be trained.	
Source:	Destination:
<ul style="list-style-type: none"> <li>- Process 1.6.2: Determine Firefighter Availability</li> </ul>	<ul style="list-style-type: none"> <li>- Process 1.6.3: Insert Available Firefighters</li> </ul>
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	
<p>Data Flow Composition (elements):</p> <ul style="list-style-type: none"> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> </ul>	Volume/Time 1/when a new/update change need to be made.
Comments: Fire department information can be collected in the form of paper forms or input from screen.	

DATA FLOW DESCRIPTION	
Name: Class Info	
Description: Contains Class Information from the database to a process.	
Source:	Destination:
- D2: Class Info	- Process 1.6.3: Insert Available Firefighters
Type of data flow	
<input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report    Form <input checked="" type="checkbox"/> Internal	
Data Flow Composition (elements):	Volume/Time
<ul style="list-style-type: none"> <li>- Class ID</li> <li>- Class Name</li> <li>- Class Credits</li> <li>- Class Location</li> <li>- Class Documentations</li> <li>- Instructor ID</li> <li>- Class Date</li> <li>- Course ID</li> <li>- Firefighter ID</li> <li>- Firefighter department ID</li> <li>- Firefighter first name, last name, middle initial</li> <li>- Firefighter callsign code</li> <li>- Firefighter rank</li> <li>- Firefighter gender</li> <li>- Firefighter date of birth</li> <li>- Firefighter race</li> <li>- Firefighter SSN</li> <li>- Firefighter Address (street, city, state, county, zip)</li> <li>- Firefighter email address</li> <li>- Firefighter cell phone, home phone, emergency contact</li> <li>- Firefighter high school diploma</li> <li>- Firefighter certification emt</li> <li>- Firefighter certification suspensions (and explanation)</li> <li>- Firefighter college degree</li> <li>-</li> </ul>	1/when a new/update change need to be made.

Comments:

DATA FLOW DESCRIPTION	
Name: Final Class Roster	
Description: Contains Class Information and Firefighter information to insert into enrollments.	
Source:	Destination:
<ul style="list-style-type: none"><li>- Process 1.6.3: Insert Available Firefighters</li></ul>	<ul style="list-style-type: none"><li>- D4: Class Enrollment</li></ul>
Type of data flow <input type="checkbox"/> Table/File <input type="checkbox"/> Screen <input type="checkbox"/> Report <input type="checkbox"/> Form <input checked="" type="checkbox"/> Internal	

<p>Data Flow Composition (elements):</p> <ul style="list-style-type: none"><li>- Class ID</li><li>- Class Name</li><li>- Class Credits</li><li>- Class Location</li><li>- Class Documentations</li><li>- Instructor ID</li><li>- Class Date</li><li>- Course ID</li></ul>	<p>Volume/Time 1/when a new/update change need to be made.</p>
Comments:	

## DATA STORE DESCRIPTION FORM

ID: D1

Name: Firefighter Info

Alias:

Description: Database table that stores all firefighter personal information.

### Data Store Characteristics

File Type       Computer     Manual  
File Format     Database     File

Estimate:

Average Number Of Records: 100

Maximum Number Of Records:

Percent Growth per year: 6%

### Data Structure (elements):

- [pk] Firefighter ID
- [fk] Department ID
- Firefighter First Name, Last Name, Middle Initial
- Firefighter Callsign Code
- Firefighter Rank
- Firefighter Gender
- Firefighter Date of Birth
- Firefighter Race
- Firefighter SSN
- Firefighter Driver License Number
- Firefighter Address – Street Address
- Firefighter Address – City
- [fk] State ID
- Firefighter Address – Zip Code
- [fk] County ID
- Firefighter Email Address
- Firefighter Cell Phone, Home Phone, Emergency Number
- Firefighter High School Diploma
- Firefighter Certification
- Firefighter Certification Emergency Medical Technician
- Firefighter Certification Suspensions
- Firefighter Certification Suspensions Explanation

- Firefighter College Degree

Comments: Firefighter personal information is to be kept secured, only authorized personal can access such table with their password.

## DATA STORE DESCRIPTION FORM

ID:D2

Name: Classes

Alias:

Description: Contains information of classes that is ready to be registered and taught.

### Data Store Characteristics

File Type       Computer       Manual  
File Format     Database       File

Estimate:

Average Number Of Records: 40

Maximum Number Of Records: 999

Percent Growth per year:

Data Structure (elements):

- [pk] Class ID
- Class Credits
- Class Date
- [fk] Instructor ID
- Class Location
- Class Documentations
- [fk]Course ID

Comments: Classes are made by Firefighter Chief or Training Officer, each class record is a combination of information from the Officer and the courses given by state. Once class is made, it can be selected in enrollment process.

## DATA STORE DESCRIPTION FORM

ID:D3

Name: Course

Alias:

Description: Contains information about the course that is to be taught

### Data Store Characteristics

File Type       Computer       Manual  
File Format     Database       File

Estimate:

Average Number Of Records: 40

Maximum Number Of Records:

Percent Growth per year:

Data Structure (elements):

- [pk]Course ID
- Course Name
- Course Credit

Comments: Courses may be given by state in form of paper and the Training Officer can type the course information into the database.

## DATA STORE DESCRIPTION FORM

ID: D4

Name: Class Enrollment

Alias:

Description: Contains information from Class database and Firefighter database to create classes enrollment

### Data Store Characteristics

File Type       Computer       Manual  
File Format     Database       File

Estimate:

Average Number Of Records: 40

Maximum Number Of Records: 999

Percent Growth per year:

Data Structure (elements):

- [pk]Enrollment ID
- [fk] Firefighter ID
- [fk] Class ID

Comments

## DATA STORE DESCRIPTION FORM

ID: D5

Name: States

Alias:

Description: Contains information about states

### Data Store Characteristics

File Type       Computer       Manual  
File Format     Database       File

Estimate:

Average Number Of Records: 50

Maximum Number Of Records:

Percent Growth per year: 0%

Data Structure (elements):

- [pk] State ID
- State Abbreviation
- State Full Name

Comments

## DATA STORE DESCRIPTION FORM

ID: D6

Name: Counties

Alias:

Description: Contains information of all the counties registered.

### Data Store Characteristics

File Type       Computer       Manual  
File Format       Database       File

Estimate:

Average Number Of Records: 3000

Maximum Number Of Records:

Percent Growth per year:0%

Data Structure (elements):

- [pk] County ID
- County Name
- [fk] State ID

Comments

## DATA STORE DESCRIPTION FORM

ID: D7

Name: Department

Alias: Fire Department

Description: Contains information about the Fire Departments.

### Data Store Characteristics

File Type       Computer       Manual  
File Format     Database       File

Estimate:

Average Number Of Records:

Maximum Number Of Records:

Percent Growth per year:

Data Structure (elements):

- [pk] Department ID
- State Department ID
- Department Name
- [fk] Firefighter Chief ID
- Department Phone Number
- Department Callsign
- [fk] County ID
- Department Street Address
- Department City
- Department Zip

Comments

**Fire Fighter**

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter ID	<b>Alias:</b> Firefighter_ID <b>Alias:</b>
<b>Description:</b> Code assigned to each firefighter.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter has an unique radio code. Every department has a unique rule for the format. In case of a firefighter is out of the record, his/her radio code stays and the rest of the department move upward.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Department ID	<b>Alias:</b> Dept_ID <b>Alias:</b>
<b>Description:</b> Code assigned to each firefighter.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter has an unique radio code. Every department has a unique rule for the format. In case of a firefighter is out of the record, his/her radio code stays and the rest of the department move upward.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter First Name	<b>Alias:</b> Firefighter_Fname <b>Alias:</b>
<b>Description:</b> First name of a Firefighter that is registered.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter must input a full name, including: first name, last name, middle initial	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Last Name	<b>Alias:</b> Firefighter_Lname <b>Alias:</b>
<b>Description:</b> Last name of a Firefighter that is registered.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter must input a full name, including: first name, last name, middle initial	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Middle Initial	<b>Alias:</b> Firefighter_MI <b>Alias:</b>
<b>Description:</b> Middle initial of a Firefighter that is registered.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter must input a full name, including: first name, last name, middle initial	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Callsign Code	<b>Alias:</b> Firefighter_Callsign_ID <b>Alias:</b>
<b>Description:</b> Radio code assigned to each firefighter.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter has an unique radio code. Every department has a unique rule for the format. In case of a firefighter is out of the record, his/her radio code stays and the rest of the department move upward.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Rank	<b>Alias:</b> Firefighter_Rank <b>Alias:</b>
<b>Description:</b> The title/rank of the firefighter.	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer Floating Point Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Every firefighter must input a full name, including: first name, last name, middle initial	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Gender	<b>Alias:</b> Firefighter_Gender <b>Alias:</b>
<b>Description:</b> Gender of a Firefighter that is registered.	<b>“ Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value: Male	“ Alphabetic “ Character/string “ Varchar <input checked="" type="checkbox"/> “ Date “ General number “ Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> must be either male or female.	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Firefighter Date of Birth</p>	<b>Alias:</b> FireFighter_DOB <b>Alias:</b>
<p><b>Description:</b> The exact date of the firefighter's birth.</p>	<b>" Base <u>X</u> Derived</b>
<p><b>Element Characteristics</b></p> <p>Length:</p> <p>Decimal Places:</p> <p>Input Format: MMDDYYYY</p> <p>Output Format: MMDDYYYY</p> <p>Default Value:</p>	<p>" Alphabetic      " Character/string      " Varchar _      " Date_X      " General number      " Integer</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous__Discrete <u>X</u> __
<p><b>If Continuous</b></p> <p>Upper Limit</p> <p>Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:</p> <p>Meaning:</p>
<p><b>Comments:</b></p>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Race	<b>Alias:</b> Firefighter_Race <b>Alias:</b>
<b>Description:</b> The race of the firefighter.	<b>“ Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	 “ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous__Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Social Security Number	<b>Alias:</b> FireFighter_SSN <b>Alias:</b>
<b>Description:</b> Social Security Number of a Firefighter that is registered.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: 9 Decimal Places: Input Format: 9(9) Output Format: 9(9) Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <input checked="" type="checkbox"/>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> each SSN must be kept secured. Output of any kind must be inspected by administrators.	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Firefighter Driver License Number</p>	<b>Alias:</b> Firefighter_DL_Num <b>Alias:</b>
<p><b>Description:</b>          The driver licence of the firefighter.</p>	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<p><b>Element Characteristics</b></p> <p>Length:          Decimal Places:          Input Format: Int          Output Format: Int          Default Value:</p>	<p>" Alphabetic          " Character/string          " Varchar          " Date          " General number          " Integer <input checked="" type="checkbox"/></p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<p><b>If Continuous</b></p> <p>Upper Limit          Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:          Meaning:</p>
<p><b>Comments:</b> each DLN must be kept secured. Output of any kind must be inspected by administrators.</p>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Address - street name	<b>Alias:</b> Firefighter_Address <b>Alias:</b>
<b>Description:</b> First part of firefighter address, number and street name.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>_</u> Discrete <u>X</u> _
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Address - City	<b>Alias:</b> Firefighter_City <b>Alias:</b>
<b>Description:</b> Second part of firefighter address, the city.	<b>" Base</b> <input checked="" type="checkbox"/> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Address - State	<b>Alias:</b> State_ID <b>Alias:</b>
<b>Description:</b> Third part of firefighter address, the state.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer -
	Floating Point
	Currency
<b>Validation Criteria</b>	Continuous <u>_</u> Discrete <u>X</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Address - Zip Code	<b>Alias:</b> Firefighter_Zip <b>Alias:</b>
<b>Description:</b> Final part of firefighter address, the zip code.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: 5 Decimal Places: Input Format: Int32(5) Output Format: Int32(5) Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <input checked="" type="checkbox"/>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> -
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter County	<b>Alias:</b> County_ID <b>Alias:</b>
<b>Description:</b> County where the firefighter lives.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Email Address	<b>Alias:</b> Firefighter_Email <b>Alias:</b>
<b>Description:</b> The firefighter Email address for contact.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Cell Phone Number	<b>Alias:</b> Firefighter_Cell_Ph <b>Alias:</b>
<b>Description:</b> The firefighter phone number for contact.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: 11 Decimal Places: Input Format: Int Output Format: Int Default Value:	" Alphabetic " Character/string " Varchar _ " Date " General number " Integer <input checked="" type="checkbox"/>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input checked="" type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Home Phone Number	<b>Alias:</b> Firefighter_HomeL_Ph <b>Alias:</b>
<b>Description:</b> The firefighter phone number for contact.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: 11 Decimal Places: Input Format: Int Output Format: Int Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <input checked="" type="checkbox"/>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Emergency Phone Number	<b>Alias:</b> Firefighter_Emer_Ph <b>Alias:</b>
<b>Description:</b> The firefighter emergency phone number for contact.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 11 Decimal Places: Input Format: Int Output Format: Int Default Value:	" Alphabetic " Character/string " Varchar _ " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>_Discrete</u> <u>X</u> -
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Personal information must be kept secured. Any access must be authorized.	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Firefighter High School Diploma</p>	<p><b>Alias:</b> Firefighter_Diploma  <b>Alias:</b></p>
<p><b>Description:</b> State true/false if the firefighter has/dont have a high school diploma.</p>	<p><b>“ Base <input checked="" type="checkbox"/> Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length:            Decimal Places:            Input Format:            Output Format:            Default Value: false</p>	<p>“ Alphabetic            “ Character/string            “ Varchar            “ Date            Boolean <input checked="" type="checkbox"/>            “ General number            “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete<input checked="" type="checkbox"/> __</p>
<p><b>If Continuous</b>            Upper Limit            Lower Limit</p>	<p><b>if Discrete</b>            Value:            Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Firefighter Certification</p>	<b>Alias:</b> Firefighter_Cert <b>Alias:</b>
<p><b>Description:</b> State true/false if the firefighter has/dont have certification to be a firefighter</p>	“ Base <input checked="" type="checkbox"/> Derived
<p><b>Element Characteristics</b></p> <p>Length: Decimal Places: Input Format: Output Format: Default Value: false</p>	<p>“ Alphabetic “ Character/string “ Varchar “ Date Boolean <input checked="" type="checkbox"/> “ General number “ Integer</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<p><b>If Continuous</b> Upper Limit Lower Limit</p>	<p><b>if Discrete</b> Value: Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Firefighter Certification Emergency Medical Technician</p>	<b>Alias:</b> Firefighter_Cert_Emt <b>Alias:</b>
<p><b>Description:</b> State true/false if the firefighter has/dont have the certification to be a first responder.</p>	“ Base <input checked="" type="checkbox"/> Derived
<p><b>Element Characteristics</b></p> <p>Length: Decimal Places: Input Format: Output Format: Default Value: false</p>	<p>“ Alphabetic “ Character/string “ Varchar “ Date Boolean <input checked="" type="checkbox"/> “ General number “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous_Discrete <input checked="" type="checkbox"/> __
<p><b>If Continuous</b></p> <p>Upper Limit Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value: Meaning:</p>
<p><b>Comments:</b></p>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Certification Suspensions	<b>Alias:</b> Firefighter_Cert_Suspensions <b>Alias:</b>
<b>Description:</b> State true/false if the firefighter has/dont have a certification suspension.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Output Format: Default Value: false	" Alphabetic " Character/string " Varchar " Date Boolean <u>X</u> " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter Certification Suspensions Explanation	<b>Alias:</b> Firefighter_Cert_Sus_Exp <b>Alias:</b>
<b>Description:</b> State true/false if the firefighter has/dont have a certification suspension explanation.	<b>“ Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: varchar Output Format: varchar Default Value: false	“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date Boolean “ General number “ Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter College Degree	<b>Alias:</b> Firefighter_High_Ed_Lvl <b>Alias:</b>
<b>Description:</b> State true/false if the firefighter has/dont have a College degree.	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value: false	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

# Certification

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Certification Name	<b>Alias:</b> <b>Alias:</b>
<b>Description:</b> The name of the specific certification.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <input checked="" type="checkbox"/> " Date " General number " Integer  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input type="checkbox"/> Discrete <input checked="" type="checkbox"/>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Certification Number	<b>Alias:</b> <b>Alias:</b>
<b>Description:</b> The code number for the specific certification.	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: ? Decimal Places: Input Format: Int Output Format: Int Default Value:	" Alphabetic " Character/string " Varchar _ " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>_</u> Discrete <u>X</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> Certification number must be verified for validity and a physical form is proof.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Certification Provider	<b>Alias:</b> <b>Alias:</b>
<b>Description:</b> A person or organization that issued the certification.	<b>“ Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>_</u> Discrete <u>X</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b> A certification provider is contacted to verify the particular certification.	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Certification Issue Date	<b>Alias:</b> <b>Alias:</b>
<b>Description:</b> The date the certification is issued to the firefighter.	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: MMDDYYYY Output Format: MMDDYYYY Default Value:	" Alphabetic " Character/string " Varchar _ " Date <u>X</u> " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>X</u> Discrete __ _
<b>If Continuous</b> Upper Limit 12/31/9999 Lower Limit 01/01/0001	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Certification Issue State</p>	<b>Alias:</b> <b>Alias:</b>
<p><b>Description:</b> The state that issued the certification.</p>	<b>“ Base <u>X</u></b> <b>Derived</b>
<p><b>Element Characteristics</b></p> <p>Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:</p>	<p>“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous_Discrete <u>X</u> __
<p><b>If Continuous</b></p> <p>Upper Limit Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value: Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Certification Note</p>	<b>Alias:</b> <b>Alias:</b>
<p><b>Description:</b> Any extra notes about this piece of certification for the particular firefighter.</p>	“ <b>Base</b> <input checked="" type="checkbox"/> <b>Derived</b>
<p><b>Element Characteristics</b></p> <p>Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:</p>	<p>“ Alphabetic “ Character/string “ Varchar <input checked="" type="checkbox"/> “ Date “ General number “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous_Discrete <input checked="" type="checkbox"/> __ __
<p><b>If Continuous</b></p> <p>Upper Limit Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value: Meaning:</p>
<p><b>Comments:</b> This section contains all complications, extra credits, side notes about the certification of this firefighter.</p>	

Course

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Course Number	<b>Alias:</b> Course_ID . <b>Alias:</b>
<b>Description:</b> The code number of the course.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Integer Output Format: Integer Default Value:	 “ Alphabetic “ Character/string “ Varchar _ “ Date “ General number “ Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Course Name	<b>Alias:</b> Course_Name <b>Alias:</b>
<b>Description:</b> The name of the course for firefighter.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Course Credit	<b>Alias:</b> Course_Credit_Hours <b>Alias:</b>
<b>Description:</b> The amount of credit the course provides.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Integer Output Format: Integer Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <input checked="" type="checkbox"/>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <input checked="" type="checkbox"/> Discrete <input type="checkbox"/>
<b>If Continuous</b> Upper Limit 4 Lower Limit 1	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

# Fire Department

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department ID number</p>	<b>Alias:</b> Dept_ID <b>Alias:</b>
<p><b>Description:</b> The identification number of the fire department.</p>	“ Base <input checked="" type="checkbox"/> Derived
<p><b>Element Characteristics</b></p> <p>Length: ?</p> <p>Decimal Places:</p> <p>Input Format: Integer</p> <p>Output Format: Integer</p> <p>Default Value:</p>	“ Alphabetic “ Character/string “ Varchar _ “ Date “ General number “ Integer <input checked="" type="checkbox"/>
	Floating Point
	Currency
<b>Validation Criteria</b>	Continuous_Discrete <input checked="" type="checkbox"/> _ _
<p><b>If Continuous</b></p> <p>Upper Limit</p> <p>Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:</p> <p>Meaning:</p>
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Fire Department Fire Department ID number	<b>Alias:</b> Dept_FDID <b>Alias:</b>
<b>Description:</b> The identification number of the fire department from state.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: ? Decimal Places: Input Format: Integer Output Format: Integer Default Value:	" Alphabetic " Character/string " Varchar _ " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> — —
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department Name</p>	<p><b>Alias:</b> Dept_Name  <b>Alias:</b></p>
<p><b>Description:</b>  The name of the fire department.</p>	<p><b>“ Base <u>X</u></b>  <b>Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length:  Decimal Places:  Input Format: String  Output Format: String  Default Value:</p>	<p>“ Alphabetic  “ Character/string <u>X</u>  “ Varchar _  “ Date  “ General number  “ Integer _</p> <p>Floating Point  Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete <u>X</u> __</p>
<p><b>If Continuous</b></p> <p>Upper Limit  Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:  Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department Chief ID</p>	<b>Alias:</b> Firefighter_Dept_Chief <b>Alias:</b>
<p><b>Description:</b> The identification number of the Chief of fire department.</p>	<b>" Base <input checked="" type="checkbox"/> X Derived</b>
<p><b>Element Characteristics</b></p> <p>Length: ?</p> <p>Decimal Places:</p> <p>Input Format: Integer</p> <p>Output Format: Integer</p> <p>Default Value:</p>	<p>" Alphabetic      " Character/string      " Varchar _      " Date      " General number      " Integer <input checked="" type="checkbox"/></p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	Continuous_Discrete <input checked="" type="checkbox"/> __
<p><b>If Continuous</b></p> <p>Upper Limit</p> <p>Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:</p> <p>Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department Phone Number</p>	<p><b>Alias:</b> Dept. Tel No.  <b>Alias:</b></p>
<p><b>Description:</b> The telephone number of the fire department.</p>	<p><b>“ Base <u>X</u></b> <b>Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length: 11            Decimal Places:            Input Format: Integer            Output Format: Integer            Default Value:</p>	<p>“ Alphabetic            “ Character/string            “ Varchar _            “ Date            “ General number            “ Integer <u>X</u></p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete <u>X</u> _ _</p>
<p><b>If Continuous</b></p> <p>Upper Limit            Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:            Meaning:</p>
<p><b>Comments:</b></p>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Fire Department Callsign	<b>Alias:</b> Dept_Callsign <b>Alias:</b>
<b>Description:</b> The radio number of the fire department.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 11 Decimal Places: Input Format: Integer Output Format: Integer Default Value:	“ Alphabetic “ Character/string “ Varchar _ “ Date “ General number “ Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Fire Department County ID	<b>Alias:</b> County_ID <b>Alias:</b>
<b>Description:</b> The ID of the county the fire department is.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:	“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department Address_Street</p>	<p><b>Alias:</b> Dept_Address. <b>Alias:</b></p>
<p><b>Description:</b> The full street address of the fire department.</p>	<p><b>“ Base <u>X</u> Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length: Decimal Places: Input Format: Varchar Output Format: Varchar Default Value:</p>	<p>“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete <u>X</u> __</p>
<p><b>If Continuous</b></p> <p>Upper Limit Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value: Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department City</p>	<p><b>Alias:</b> Dept_City  <b>Alias:</b></p>
<p><b>Description:</b> The city of the fire department.</p>	<p><b>“ Base <u>X</u></b>  <b>Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length:            Decimal Places:            Input Format: Varchar            Output Format: Varchar            Default Value:</p>	<p>“ Alphabetic            “ Character/string            “ Varchar <u>X</u>            “ Date            “ General number            “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete <u>X</u> __</p>
<p><b>If Continuous</b></p> <p>Upper Limit            Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:            Meaning:</p>
<p><b>Comments:</b></p>	

<p style="text-align: center;"><b>ELEMENT DESCRIPTION FORM</b></p> <p><b>Name:</b> Fire Department Address_Zip</p>	<p><b>Alias:</b> Dept_Zip  <b>Alias:</b></p>
<p><b>Description:</b> The Zip code of the fire department.</p>	<p><b>“ Base <u>X</u></b>  <b>Derived</b></p>
<p><b>Element Characteristics</b></p> <p>Length:            Decimal Places:            Input Format: Varchar            Output Format: Varchar            Default Value:</p>	<p>“ Alphabetic            “ Character/string            “ Varchar <u>X</u>            “ Date            “ General number            “ Integer _</p> <p>Floating Point</p> <p>Currency</p>
<p><b>Validation Criteria</b></p>	<p>Continuous_Discrete <u>X</u> __</p>
<p><b>If Continuous</b></p> <p>Upper Limit            Lower Limit</p>	<p><b>if Discrete</b></p> <p>Value:            Meaning:</p>
<p><b>Comments:</b></p>	

# Classes

<b>ELEMENT DESCRIPTION FORM</b> Name: Class ID	<b>Alias:</b> Class_ID <b>Alias:</b>
<b>Description:</b> The ID for the class.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	 " Alphabetic " Character/string " Varchar " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Class Credits	<b>Alias:</b> Class_Credit_Hours <b>Alias:</b>
<b>Description:</b> The amount of credit offered by the class.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> Name: Class Date	<b>Alias:</b> Class_Date <b>Alias:</b>
<b>Description:</b> The date the class will be held	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: MMDDYYYY Output Format: MMDDYYYY Default Value:	 " Alphabetic " Character/string " Varchar " Date <u>X</u> " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Instructor ID	<b>Alias:</b> Firefighter_Class_Instructor_ID <b>Alias:</b>
<b>Description:</b> The ID of the firefighter who teaches the class.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	“ Alphabetic “ Character/string “ Varchar “ Date “ General number “ Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Class Location	<b>Alias:</b> Class_Location <b>Alias:</b>
<b>Description:</b> The location the class will be held	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: varchar Output Format: varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer <u>_</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> <u>_</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Class Documentations	<b>Alias:</b> Class_Notes <b>Alias:</b>
<b>Description:</b> The notes of the class.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: varchar Output Format: varchar Default Value:	“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer <u>_</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> <u>_</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Course ID	<b>Alias:</b> Course_ID <b>Alias:</b>
<b>Description:</b> The ID for the course.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

**County**

<b>ELEMENT DESCRIPTION FORM</b> Name: County ID	<b>Alias:</b> County_ID <b>Alias:</b>
<b>Description:</b> The ID for the county in the database.	<b>" Base <input checked="" type="checkbox"/> Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	 " Alphabetic " Character/string " Varchar " Date " General number " Integer <input checked="" type="checkbox"/>
	Floating Point
	Currency
<b>Validation Criteria</b>	Continuous_Discrete <input checked="" type="checkbox"/> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> County Name	<b>Alias:</b> County_Name <b>Alias:</b>
<b>Description:</b> The Name for the county in the database.	<b>" Base <u>X</u> Derived</b>
<b>Element Characteristics</b> Length: Decimal Places: Input Format: varchar Output Format: varchar Default Value:	" Alphabetic " Character/string " Varchar <u>X</u> " Date " General number " Integer <u>_</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous <u>_</u> Discrete <u>X</u> <u>_</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> State ID	<b>Alias:</b> State_ID <b>Alias:</b>
<b>Description:</b> The ID for the state the county is in.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	“ Alphabetic “ Character/string “ Varchar “ Date “ General number “ Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

# Enrollments

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Enrollment ID	<b>Alias:</b> Enrollment_ID <b>Alias:</b>
<b>Description:</b> The ID of this enrollment.	“ Base <input checked="" type="checkbox"/> Derived
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	“ Alphabetic “ Character/string “ Varchar “ Date “ General number “ Integer <input checked="" type="checkbox"/>
	Floating Point
	Currency
<b>Validation Criteria</b>	Continuous_Discrete <input checked="" type="checkbox"/> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Firefighter ID	<b>Alias:</b> Firefighter_ID <b>Alias:</b>
<b>Description:</b> The ID of the firefighter enrolling.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> Class ID	<b>Alias:</b> Enrollment_ID <b>Alias:</b>
<b>Description:</b> The ID of this enrollment.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	“ Alphabetic “ Character/string “ Varchar “ Date “ General number “ Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

**State**

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> State ID	<b>Alias:</b> State_ID <b>Alias:</b>
<b>Description:</b> The ID of the state.	<b>" Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 4 Decimal Places: Input Format: Output Format: Default Value:	" Alphabetic " Character/string " Varchar " Date " General number " Integer <u>X</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> State Abbreviation	<b>Alias:</b> State_Abbreviation <b>Alias:</b>
<b>Description:</b> The abbreviation of the state.	<b>" Base X</b> <b>Derived</b>
<b>Element Characteristics</b> Length: 2 Decimal Places: Input Format: Output Format: Default Value:	 " Alphabetic " Character/string " Varchar X " Date " General number " Integer _  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete X __ __
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

<b>ELEMENT DESCRIPTION FORM</b> <b>Name:</b> State Full Name	<b>Alias:</b> State_Name <b>Alias:</b>
<b>Description:</b> The full name of the state.	<b>“ Base <u>X</u></b> <b>Derived</b>
<b>Element Characteristics</b> Length: 2 Decimal Places: Input Format: Output Format: Default Value:	“ Alphabetic “ Character/string “ Varchar <u>X</u> “ Date “ General number “ Integer <u>_</u>  Floating Point  Currency
<b>Validation Criteria</b>	Continuous_Discrete <u>X</u> <u>_</u> <u>_</u>
<b>If Continuous</b> Upper Limit Lower Limit	<b>if Discrete</b> Value: Meaning:
<b>Comments:</b>	

## Appendix F

## Process Specification Form

Number 1.1

Name Add Department

Description This process adds a new department to the database

### Input Data Flow

D5: States

D6: Counties

### Output Data Flow

Department Information

#### Type of Process

Online    Batch    Manual

#### Subprogram/Function Name

AddDepartment

#### Process Logic:

Accept User Input

Add User Input to Departments Table in the SQL server

Refer to: Name: AddDepartment

Structured English    Decision Table    Decision Tree

#### Unresolved Issues:

None

## Process Specification Form

Number 1.2

Name Update Department

Description Updates Department Information in the Database

Input Data Flow

D5: States, D6: Counties, Department Info

Output Data Flow

Updated Department Information

Type of Process

Online  Batch  Manual

Subprogram/Function Name

UpdateDepartment

Process Logic:

User Selects Department to update  
User inputs new department information  
Updates Department Table in Database

Refer to: Name: Update Department

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 2.1

Name Add Firefighter

Description Add firefighter information into a department

### Input Data Flow

D7: Departments, D6: Counties, D5: States

### Output Data Flow

D1: Firefighter Info

#### Type of Process

Online  Batch  Manual

#### Subprogram/Function Name

AddFirefighter

#### Process Logic:

User Selects Department and state from database

User inputs Firefighter Information

Firefighter information added to D1:Firefighter info

Refer to: Name: Add Firefighter

Structured English  Decision Table  Decision Tree

#### Unresolved Issues:

None

## Process Specification Form

Number 2.2

Name Update Firefighter

Description Update firefighter information into a department

### Input Data Flow

D7: Departments, D6: Counties, D5: States, D1: Firefighter Info

### Output Data Flow

D1: Firefighter Info

#### Type of Process

Online     Batch     Manual

#### Subprogram/Function Name

UpdateFirefighter

#### Process Logic:

User Selects Department, firefighter and state from database

User inputs Firefighter Information

Firefighter information added to D1:Firefighter info

Refer to: Name: Update Firefighter

Structured English     Decision Table     Decision Tree

#### Unresolved Issues:

None

## Process Specification Form

Number 3.1

Name Create Class

Description This process creates a class in the database

### Input Data Flow

D1: Firefighter Info

D3: Courses

### Output Data Flow

Initial Class Information

#### Type of Process

Online  Batch  Manual

#### Subprogram/Function Name

CreateClass

#### Process Logic:

User selects course to add class to

User inputs firefighter information

Add User Input to Classes Table in the SQL Server

Refer to: Name: Create Class

Structured English  Decision Table  Decision Tree

#### Unresolved Issues:

None

## Process Specification Form

Number 3.2

Name Request Approval From Chief

Description This process requires approval from the chief to add the class details

Input Data Flow

Initial Class Info

Output Data Flow

Approved Class Info

Type of Process

Online  Batch  Manual

Subprogram/Function Name

ChiefApproval

Process Logic:

Chief Provides approval

Refer to: Name: Chief Approval

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 3.3

Name Post Class Final Details

Description This process posts the final details of the class being added

Input Data Flow

Approved Class Info

Output Data Flow

D2: Classes

Type of Process

Online  Batch  Manual

Subprogram/Function Name

PostClassDetails

Process Logic:

Class Criteria is added to D2: Classes

Refer to: Name Final Class Details

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 4.1

Name Update Firefighter Training Standing

Description This process updates department training statistics.

### Input Data Flow

D1: Firefighter Info

D4: Class Enrollment

### Output Data Flow

D1: Firefighter Info

Updated Department Training Stats

### Type of Process

Online     Batch     Manual

### Subprogram/Function Name

UpdateStats

### Process Logic:

User inputs class enrollment

User inputs firefighter information

Update TrainingStats Table in the database

Refer to: Name: Update Stats

Structured English     Decision Table     Decision Tree

### Unresolved Issues:

None

## Process Specification Form

Number 4.2

Name Print Consolidated Report

Description This Process prints training reports for the fire chief and training officer.

Input Data Flow

Updated Department Training Statistics

Output Data Flow

Training Report

Type of Process

Online  Batch  Manual

Subprogram/Function Name

PrintReport

Process Logic:

Print Updated Department Training Stats

Refer to: Name: Print Report

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 5.1

Name Add Course

Description This process adds a new course to the database

Input Data Flow

Training Officer Input

Output Data Flow

D3: Courses

Type of Process

Online  Batch  Manual

Subprogram/Function Name

AddCourse

Process Logic:

Accept user Input

Add User Input to the Courses table in the SQL server

Refer to: Name: Add Course

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 5.2

Name Update Course

Description Updates Course information in the database

Input Data Flow

D3: Courses, Course Info

Output Data Flow

Updated Course Information

Type of Process

Online  Batch  Manual

Subprogram/Function Name

UpdateCourse

Process Logic:

User Selects Course to update

User Inputs new Course Information

Update Courses Table in Database

Refer to: Name: Update Course

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 6.1

Name Determine Personnel to be Trained

Description This process produces the names of firefighters who require a specific course.

Input Data Flow

D1: Firefighter Info

Output Data Flow

Potential Class Roster

Type of Process

Online  Batch  Manual

Subprogram/Function Name

CreatePotentialRoster

Process Logic:

User Inputs Course\_ID

System makes a query based on the input

Query returns firefighter\_id of those who have not taken the course

D1: Firefighter info is used to generate a potential roster

Refer to: Name: Determine Personnel to be Trained

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 6.2

Name Determine Firefighter Availability

Description Of the potential class roster, this process finds which firefighters will be able to attend training.

Input Data Flow

Potential Class Roster

Output Data Flow

Available Firefighters

Type of Process

Online  Batch  Manual

Subprogram/Function Name

DetermineFirefighterAvailability

Process Logic:

Training Officer manually determines which Firefighters will be able to attend the class.

Potential Roster is narrowed down to Available Firefighters

Refer to: Name: Determine Firefighter Availability

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Process Specification Form

Number 6.3

Name Insert Available Firefighters

Description Adds the names of the available firefighters to the class final roster

Input Data Flow

D2: Classes, Available Firefighters

Output Data Flow

D4: Class Enrollment

Type of Process

Online  Batch  Manual

Subprogram/Function Name

InsertAvailableFirefighters

Process Logic:

User inputs the Firefighter\_id of attending Firefighters

Firefighters are registered for the selected class

Class enrollments are created for each attending firefighter

Final class roster is printed.

Refer to: Name: Insert Available Firefighters

Structured English  Decision Table  Decision Tree

Unresolved Issues:

None

## Appendix G

# Firefighter

[Register](#) [Log in](#)[Home](#) [About](#) [Contact](#)

## Add Firefighter

First Name

MI

Last Name

Gender

DOB

SSN

DL Number

Address

City

State

Zip

Department

Rank

Callsign

# Firefighter

[Register](#) [Log in](#)[Home](#) [About](#) [Contact](#)

## Update Firefighter

First Name

MI

Last Name

Gender

DOB

SSN

DL Number

Address

City

State

Zip

Department

Rank

Callsign