

# Preliminary Design

## Functional IAT to Learn Everyone's Thoughts (F.I.L.E.T.)

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# F.I.L.E.T.

## Preliminary Design

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# 1 | Introduction

## 1.1 | Product Overview

Dr. Breimer wants a web-based piece of software that will allow him to easily create Implicit Association Tests, or IATs. IATs are psychological tests that measure biases that test takers may have towards one group or another. The test is taken by first taking a demographic survey, then by associating stimuli objects (whether text or images) into categories and based on how much time is taken on each stimuli, a bias may be determined. Dr. Breimer wants to simply create a survey then choose these categories and stimuli and have the system create the IAT around them. Once his IATs are created and put online by the system he will be able to distribute the URL to participants whom he wishes to take the test. At any point after the IAT is online he may view and export both the survey and test data in order to analyze it.

## 1.2 | Development, Operation, and Maintenance Environment

FSH Tech will be developing F.I.L.E.T. using the resources available in our software engineering lab. The list below will contain the equipment used to create our software and our team website, as well as keep them maintained.

### Server:

- Web Server: Apache version 2.2.21
- PHP version 5.2.17
- MySQL 5.1.58-community log

### Windows Machine:

- Operating System: Microsoft Windows Vista Enterprise (32 bit) Service Pack 2
- Hardware:
  - Processor: Intel Core 2 Duo, 2.93 GHz
  - Memory: 4.00 GB RAM
- Software:
  - Microsoft Office 2007
  - Macromedia Dreamweaver, Fireworks
  - Internet Explorer 9, Mozilla Firefox 7.0.1, Google Chrome 15.0.874.102

## 1.2 | Development, Operation, and Maintenance Environment (cont.)

### Macintosh Machine:

Operating System: Apple Mac OS X Version 10.6.4

Model: iMac 5.1

Processor: Intel Core 2 Duo 2 GHz

Memory (RAM): 1.00 GB

## 1.3 | User Case Narratives

In order for our client, Dr. Breimer, to gather information for research, he would like to use IATs (Implicit Association Tests). IATs are psychological tests used to determine biases or prejudices by placing stimuli objects into one of four categories. With every IAT Dr. Breimer creates he also needs information to be gathered about the person taking it, meaning a survey would also have to be created for every test.

### 1.3.1 | Administrator

When the Administrator logs in to the system, the Administrator will be able to create new IATs as well as view the results of pre-existing IATs. If the Administrator wishes to create an IAT, the Administrator will first name the new IAT and select the four categories the stimuli are to be grouped into. The Administrator will then be able to select stimuli objects, either images or words that belong to each individual category. The Administrator will also be able to edit the survey to allow for focus on the data relevant to the selected IAT. Once the Administrator has finished selecting the categories, stimuli objects, and editing the survey, the Administrator will then be able to create and publish to the IAT to the Internet. The IAT will be hosted online and a link will be generated in order to give the Administrator a means to share the IAT with Participants. In addition to creating IATs, the Administrator will also be able to view an organized collection of the resulting data which will be stored in the database. The database will contain all of the Participants' survey data as well as the results of every IAT that has been created and published, which the Administrator can explore individually. The Administrator may export the results of both the survey and IAT to a spreadsheet for further analysis.

## 1.3 | User Case Narratives (cont.)

### 1.3.2 | Participant

Anybody who is provided the Administrators link to one of the published IATs may choose to participate. The Participant will first be taken to the survey in their web browser before proceeding to the IAT. The survey will contain information pertinent to the IAT and this information will be important when viewing the end results. Once all the mandatory questions have been answered on the survey, the IAT page will be loaded. The Participant will be shown an introductory screen explaining the test, and introducing the four categories and stimuli objects that will follow. The Participant will need to press the E and I keys on their keyboard to categorize stimuli objects left or right to the correct categories. Once the Participant presses the space bar, the test will begin with the first of seven blocks, or sections of the test. Each block is completed by the same method of categorization; however the categories will be paired differently in each block. A screen similar to the introductory screen will be shown between each block, and the Participant will start the next block by pressing the space bar once again. The Participant will also be able to view the instruction screen during the test if need be. Once all seven blocks are completed, the Participant will be shown their results, if they are available for the test they have taken.

## 1.4 | Functional Requirements Inventory

F.I.L.E.T. will be tested and used on Internet browsers such as Internet Explorer, Mozilla Firefox, Safari, and Google Chrome. F.I.L.E.T. will have 2 user types: an Administrator and a Participant. The functional requirements will be grouped by user type.

### Administrator

- Will be able to authenticate
  - Will be able to enter username and password
- Will be able to create an IAT
  - Will be able to create survey questions
  - Will be able to insert category titles
    - Will be able to pair the category titles
    - Will be able to distinguish which category we are primarily testing
  - Will be able to put image or text stimuli into categories.
  - Will be able to select whether results are shown or not
- Will be able to view IAT results
  - Will be able to view survey results
  - Will be able to view test data
- Will be able to export IAT results to a spreadsheet
  - Will be able to export only survey data
  - Will be able to export all data
  - Will be able to export only statistical association results

### Participant

- Will be able to follow a link to begin taking an IAT
- Will be able to take the IAT
  - Will be able to take a survey
  - Will have to categorize stimuli objects
- Will be able to see the results
  - This is an option that the Administrator can allow



## 1.5 | Non-Functional Requirements Inventory

The non-functional requirement inventory is a list of non-functional system requirements. This list is composed of requirements that specify what F.I.L.E.T is expected to be able to do. Anything in this list can be changed as more information is gathered about the project.

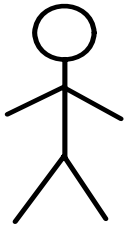
- The system will be maintainable.
- The system will be stable.
- The system will be operational on several different browsers.
- The system will be easy to use.
- The system will be visually appealing.

## 2 | Preliminary Design

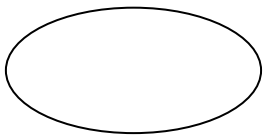
### 2.1 | UML Use Case Diagram

A Use Case Diagram is being shown to depict how users will be interacting with F.I.L.E.T. It uses various symbols, described below, to display the steps for how users can access and use certain processes within a software system.

#### 2.1.1 | Use Case Diagram Legend



Actors/ Users who will be accessing the system. The actors on the left are human actors and the ones on the right are non-living actors.



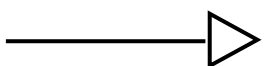
Use cases which are the processes and sub-processes that an actor can access in the system.



System boundary which separates the system from the outside entities which are the actors.



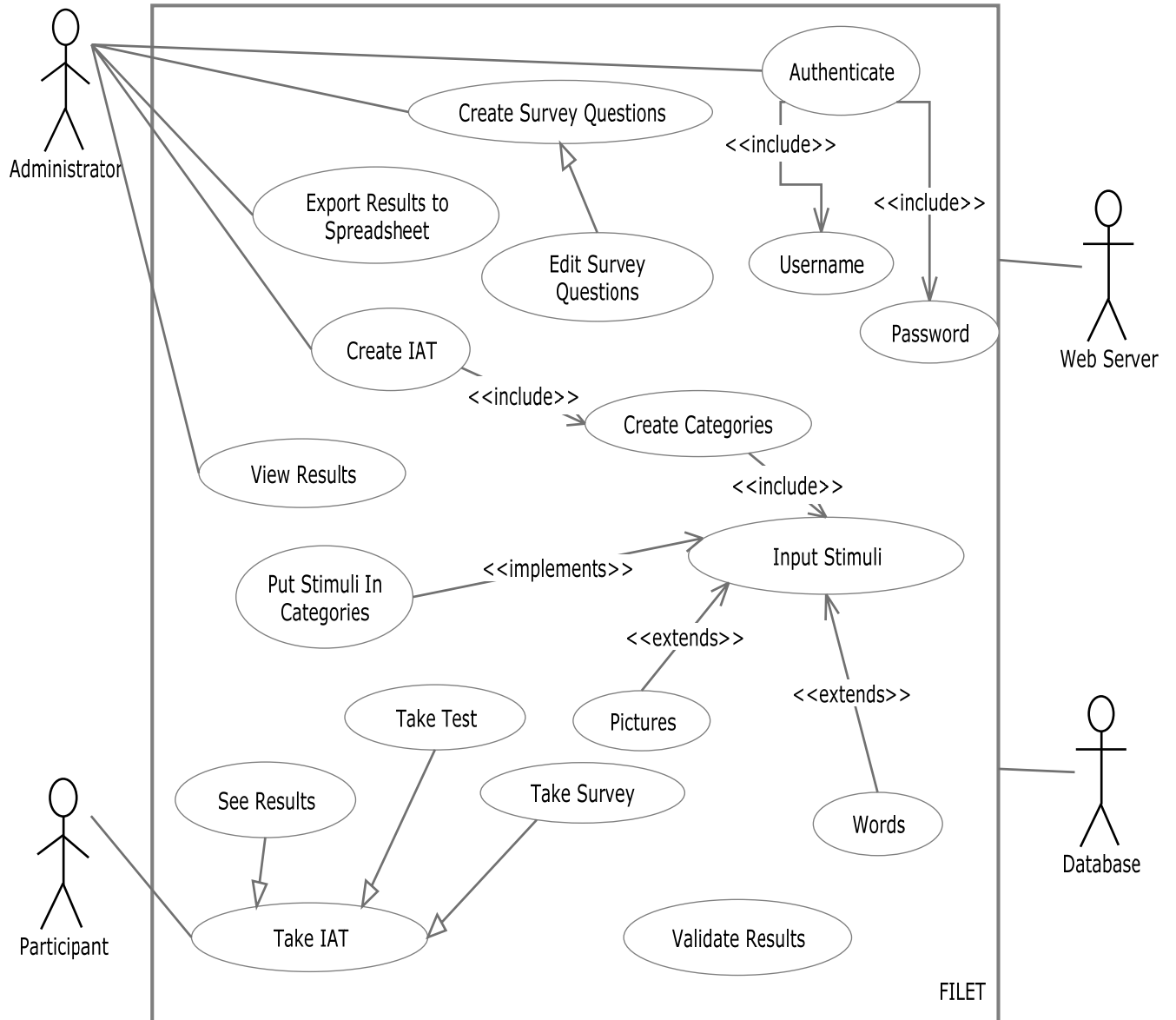
Relationship between different entities



Inheritance which is a specific type of relationship

## 2.1.2 | Use Case Diagram

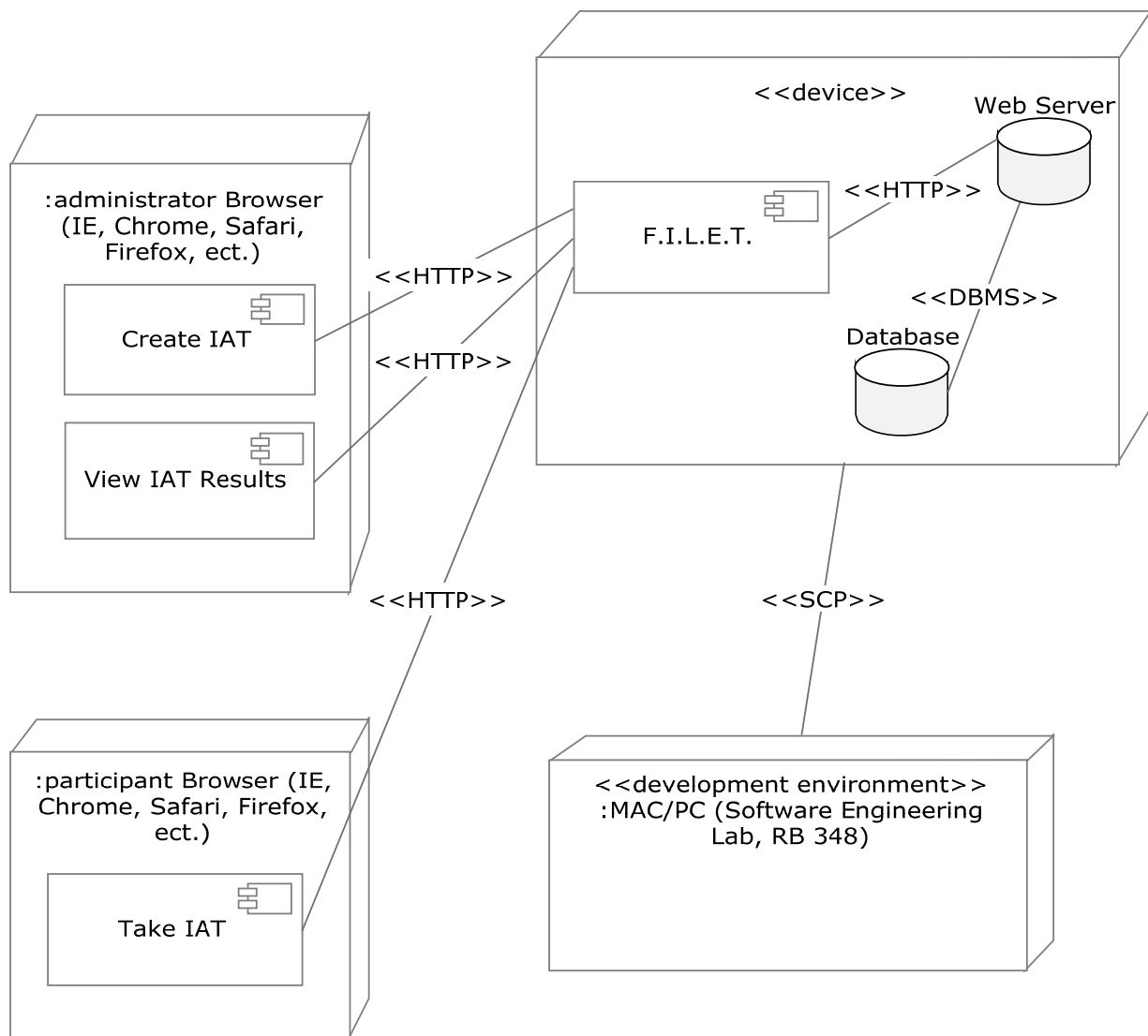
# F.I.L.E.T. by FSH Tech



## 2.2 | UML Deployment Diagram

The deployment diagram shows the execution environment for the system. This diagram shows the interaction between the web server, the database, and F.I.L.E.T. and the protocols of these interactions.

### F.I.L.E.T.



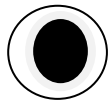
## 2.3 | UML Activity Diagram

F.I.L.E.T. is setup as different processes and they are depicted with an UML Activity Diagram. Activity diagrams are used to describe the overall flow of control within a system by displaying the business and operational step-by-step workflows of components in a system.

### 2.3.1 | Activity Diagram Legend



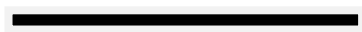
**Initial Nodes** define the starting point of the described activity



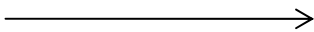
**Final Nodes** define the finishing point of an activity that can be reached through many paths in an activity



**Decision Nodes** are used when multiple actions can be taken after one process is completed in an activity



**Fork or Join** allows for multiple flows from or to an object



**Entity connectors** to show the order in which activities happen

[Decision Condition Description]

**Decision Conditions** are the conditions that decide which path to take after a decision node is found



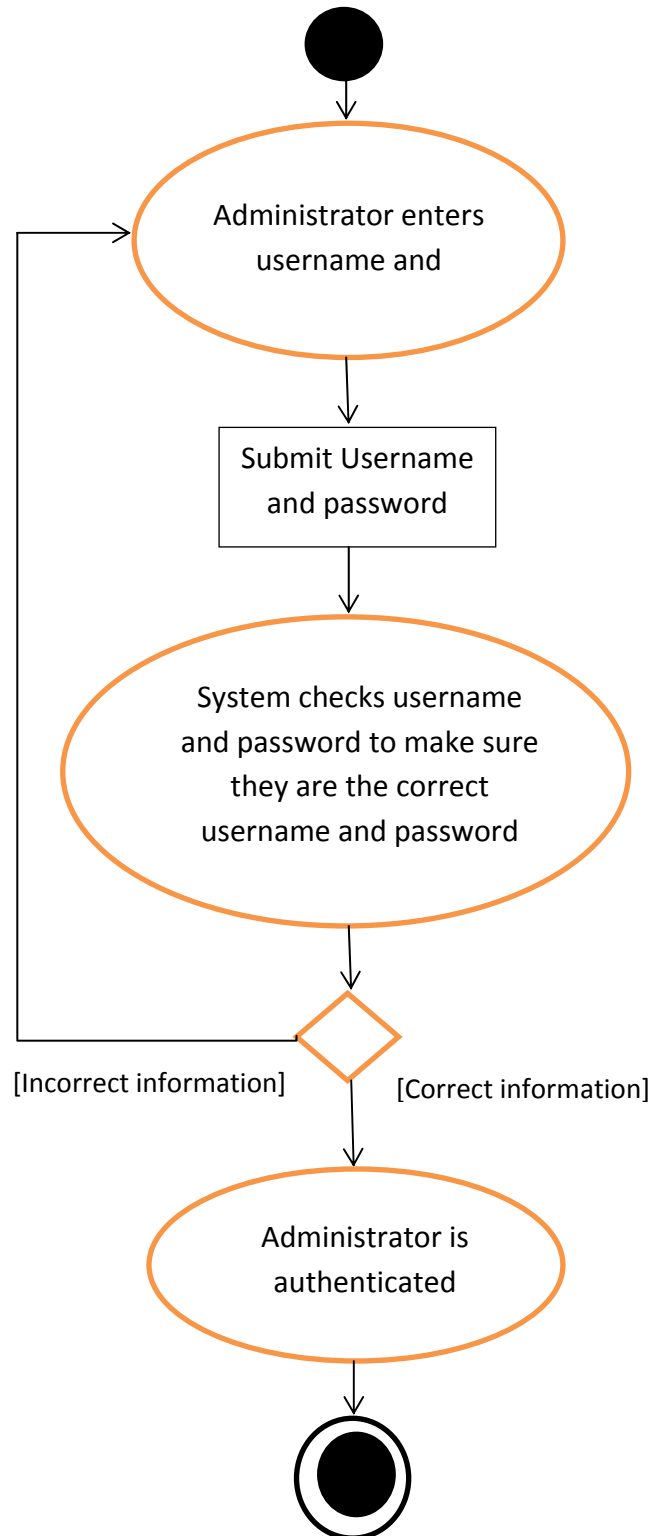
Data or Object is submitted



**Activity Nodes** show the processes that the system or user must go through to accomplish the activity

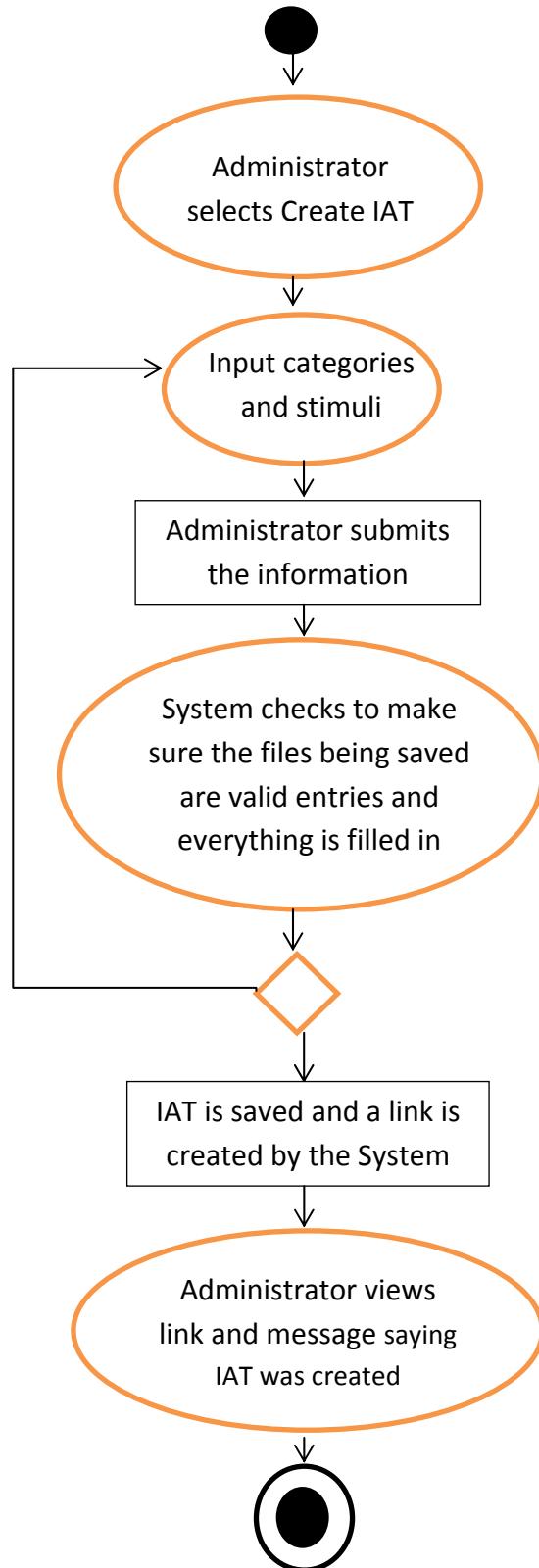
### 2.3.2 | Authenticate

This process will be used by the Administrator in order to log into the system to interact with the system.



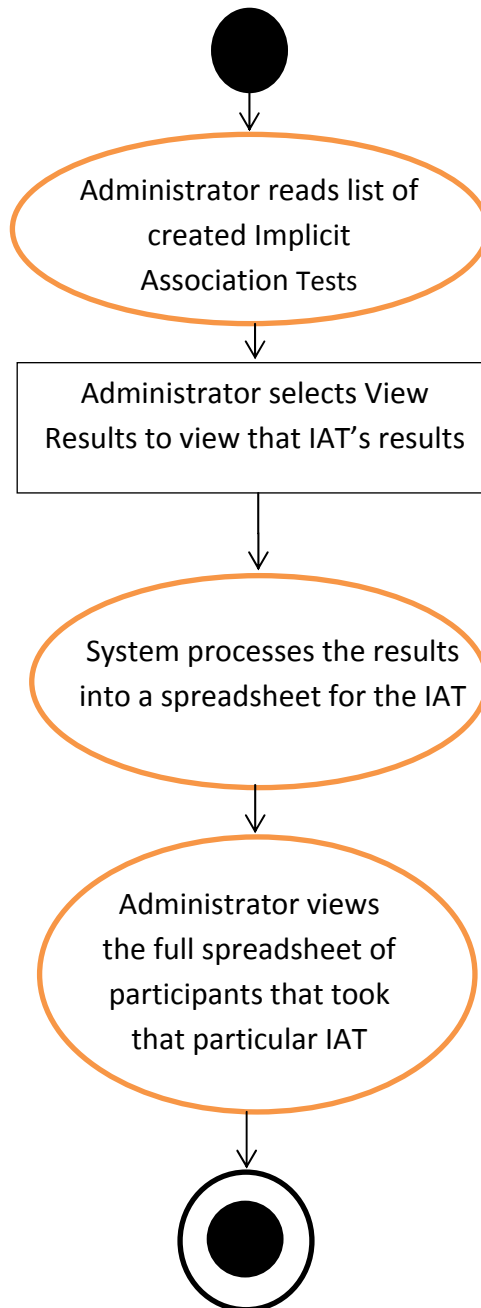
### 2.3.3 | Create IAT

This process will be used by the Administrator in order to create the IAT test.



### 2.3.4 | View Results

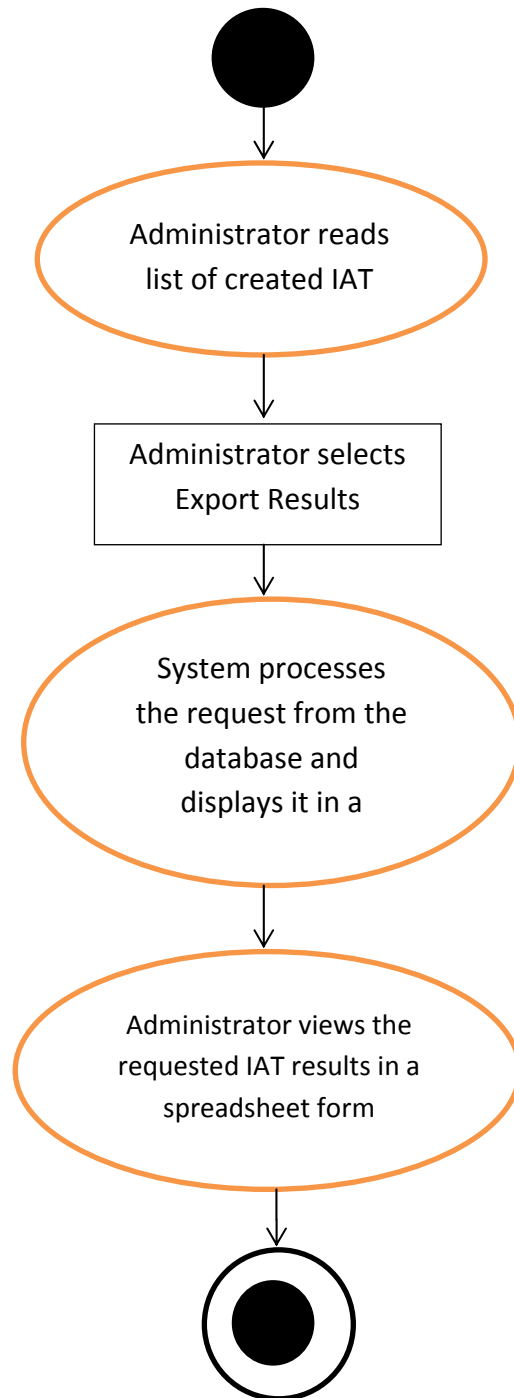
This process will be used by the Administrator to view the results of the Participants who have already taken the IAT.





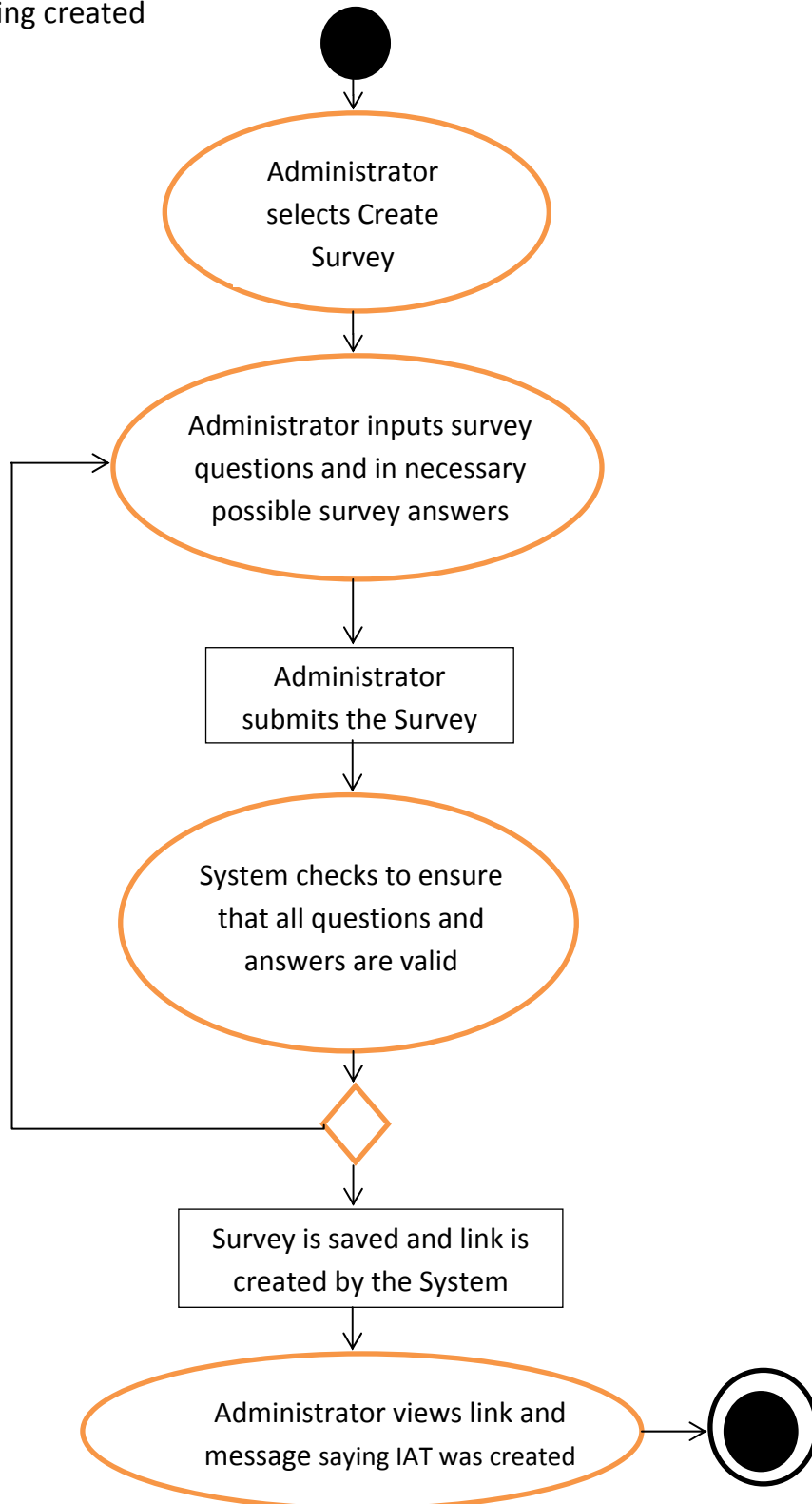
### 2.3.5 | Export Results to Spreadsheet

This function will be used by the Administrator to export the results from the Participants taking the IAT into a spreadsheet.



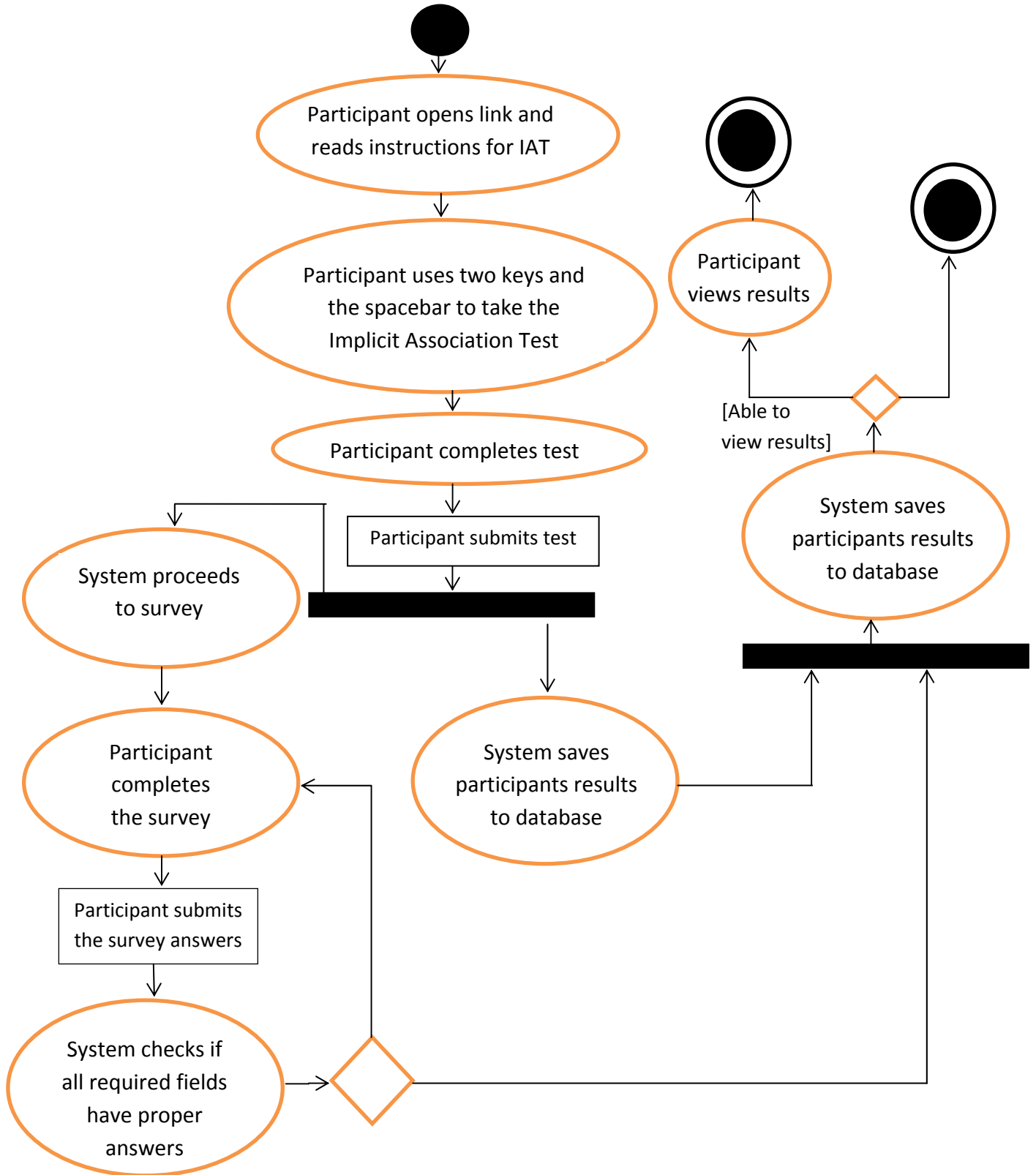
### 2.3.6 | Create Survey

This function will be used by the Administrator in order to create the survey associated with the IAT being created



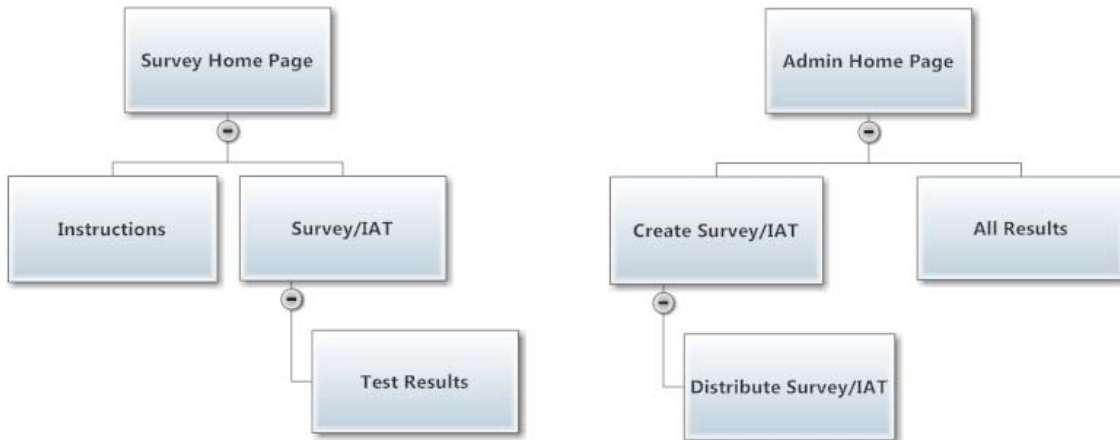
### 2.3.7 | Take IAT

This function is used by the Participant to take the IAT the Administrator distributes.



## 2.4 | Website Map

The Website Map is a diagram of the website that includes its layers and links.



 = HTML Page

 = Link or Forward Progression

## 2.5 | Structure Diagrams

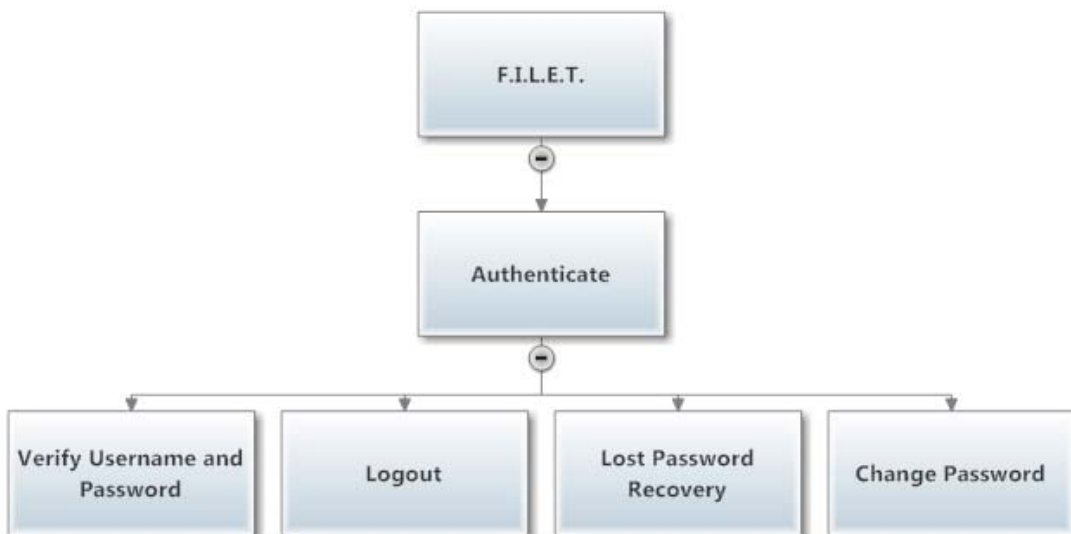
A Structure Diagram shows the breakdown of F.I.L.E.T. at the lowest manageable levels. Each rectangular box represents a module, and the arrows show the relationships between the modules.

### 2.5.1 | F.I.L.E.T.



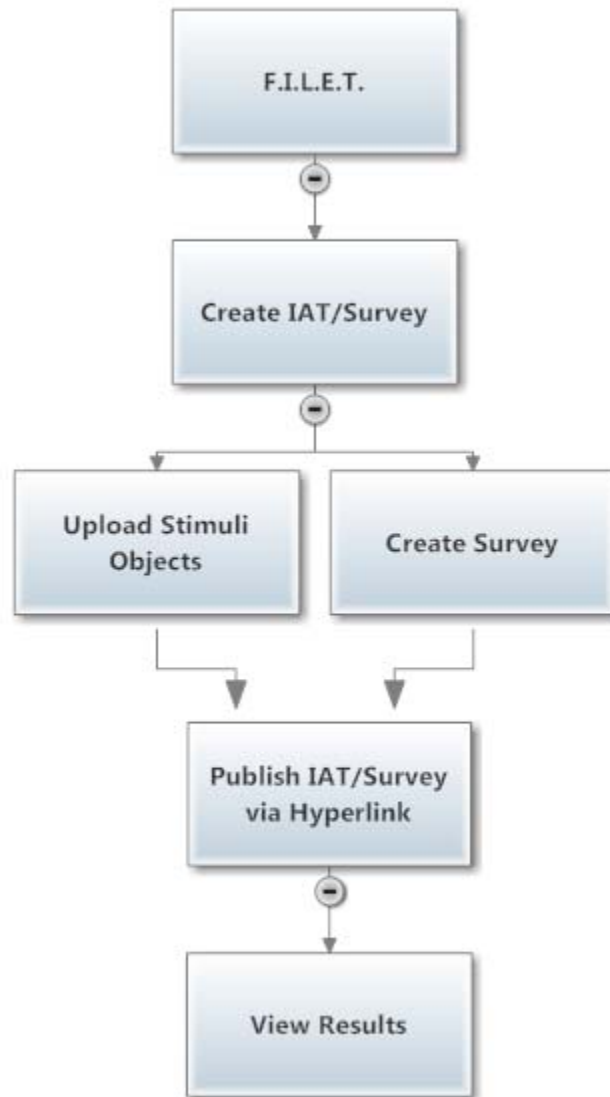
### 2.5.2 | Authenticate

This process will be used by the Administrator in order to log into the system to interact with the system.



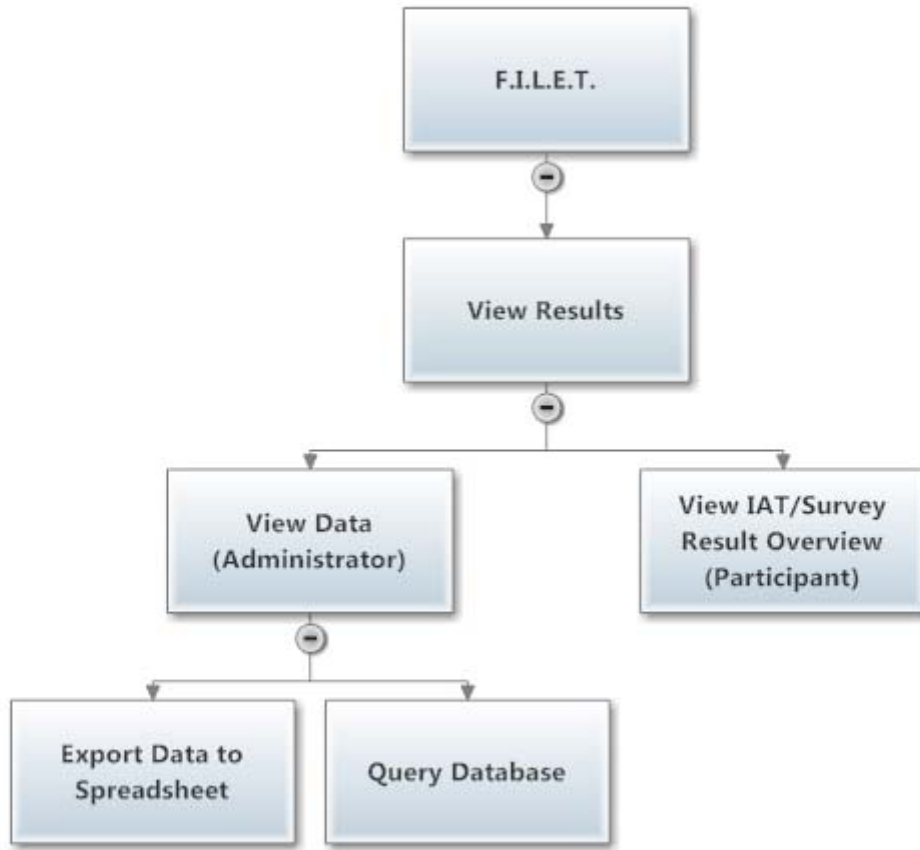
### 2.5.3 | Create IAT

This process will be used by the Administrator in order to create the IAT test.



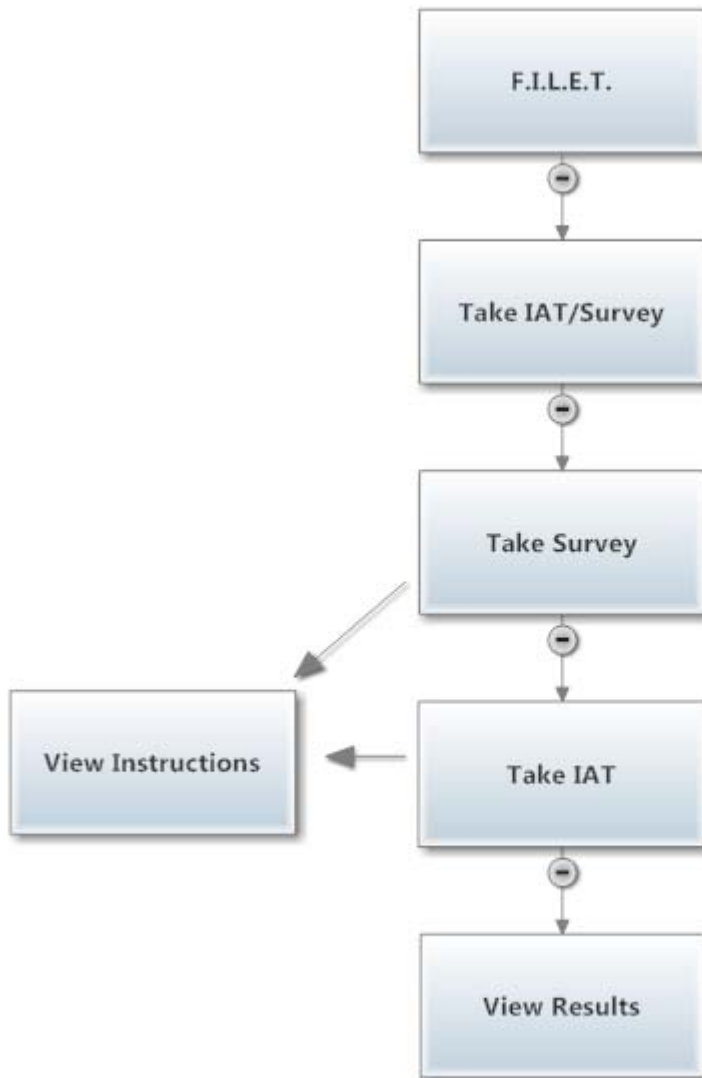
## 2.5.4 | View Results

This process will be used by the Administrator to view the results of the Participants who have already taken the IAT.



## 2.5.5 | Take IAT

This function is used by the Participant to take the IAT the Administrator distributes.



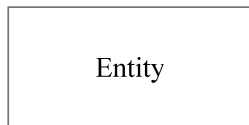


## 2.6 | Data Flow Diagrams

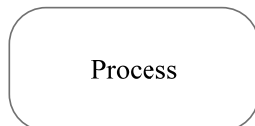
Data Flow Diagrams give a visual representation of data throughout the system, from users to processes to data stores. The diagrams start at a very high level and get more detailed at each further level. What will follow is a legend of the symbols used, and the diagrams themselves.

### 2.6.1 | Data Flow Legend

#### F.I.L.E.T. by FSH Tech Data Flow Diagram Legend



External or Internal Entities, which are either sinks for or sources of data



A Process that manipulates and passes on data in some way from or to Entities, other Processes, or a Datastore



Datastore which represents a place where data is received and held, such as a database

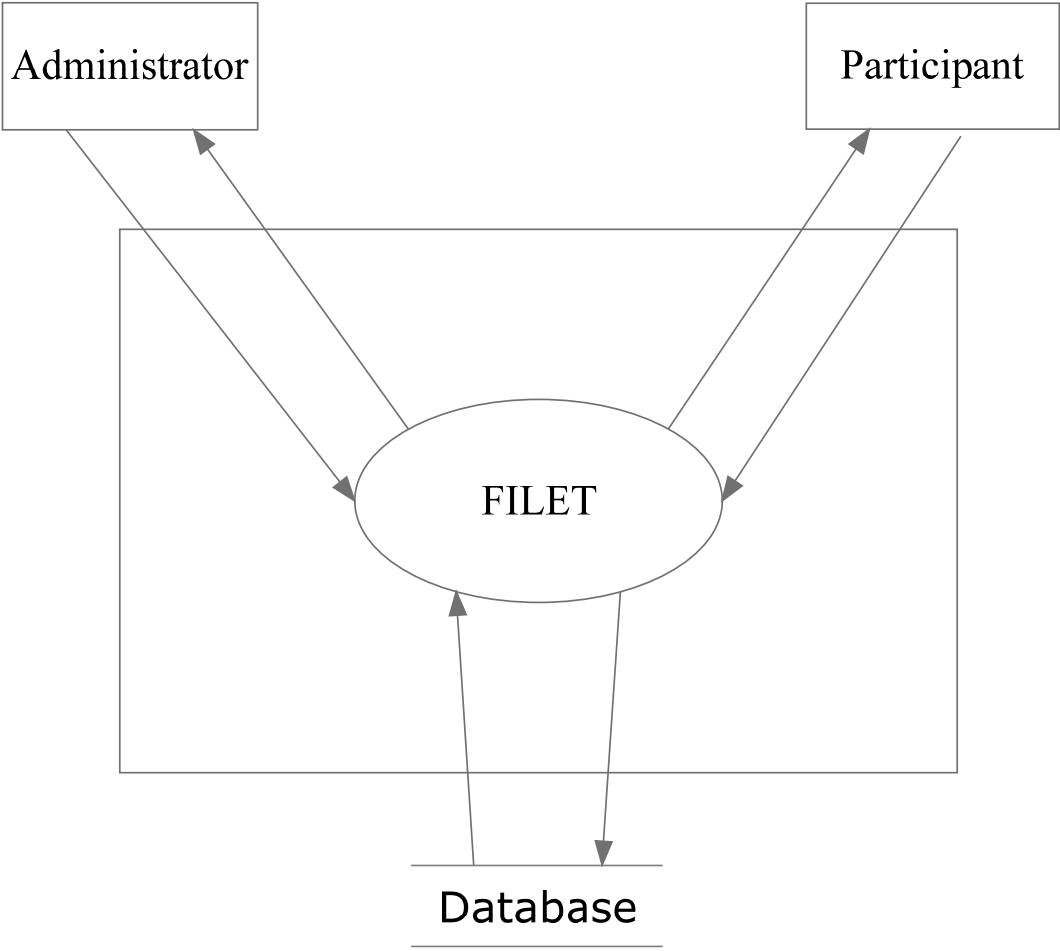


Data flow between Entities, Processes, and Datastores

**2.6.2 | Context Diagram**

The context diagram gives a broad overview of the system and lists the primary users and external data stores.

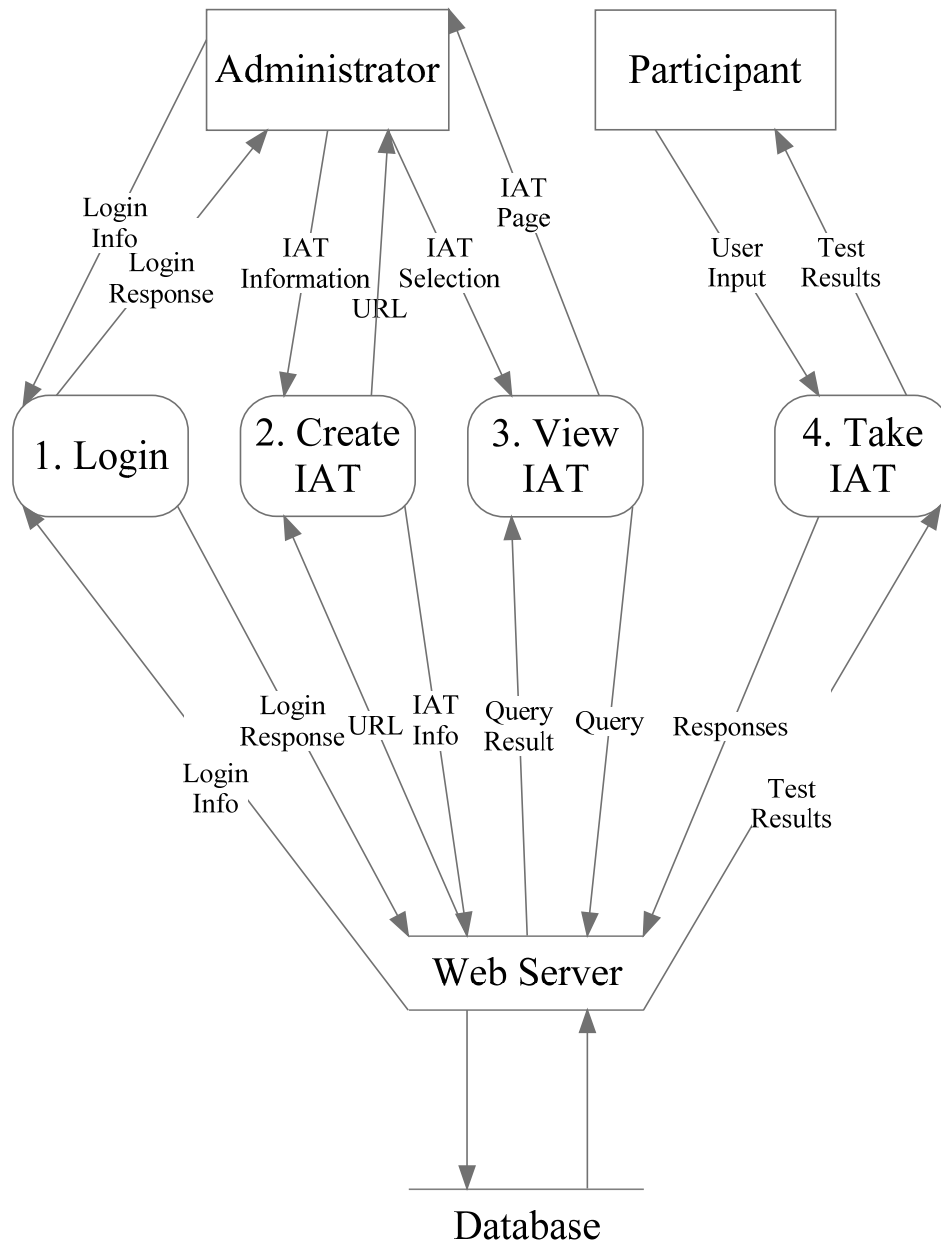
**FILET by FSH Tech  
Context Diagram**



### 2.6.3 | Level 0 Diagram

The Level 0 Diagram lists the main processes that the system will be able to perform and the main pieces of data that they require and use.

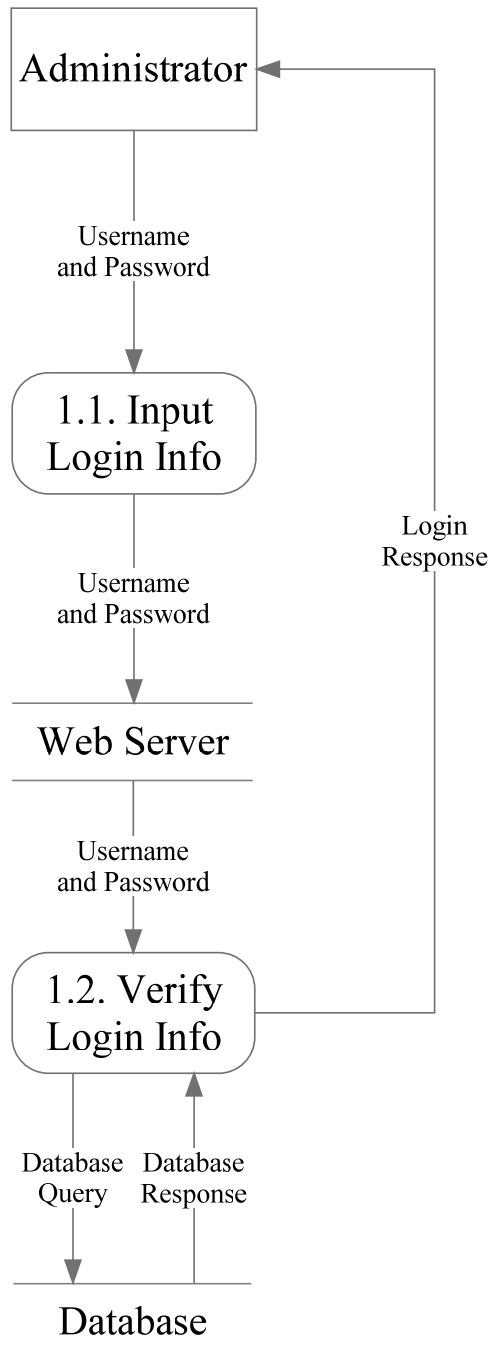
## FILET by FSH Tech Level 0



## 2.6.4 | Level 1 Diagram: Process 1 Login

A more detailed view of the login procedure that the Administrator will first take

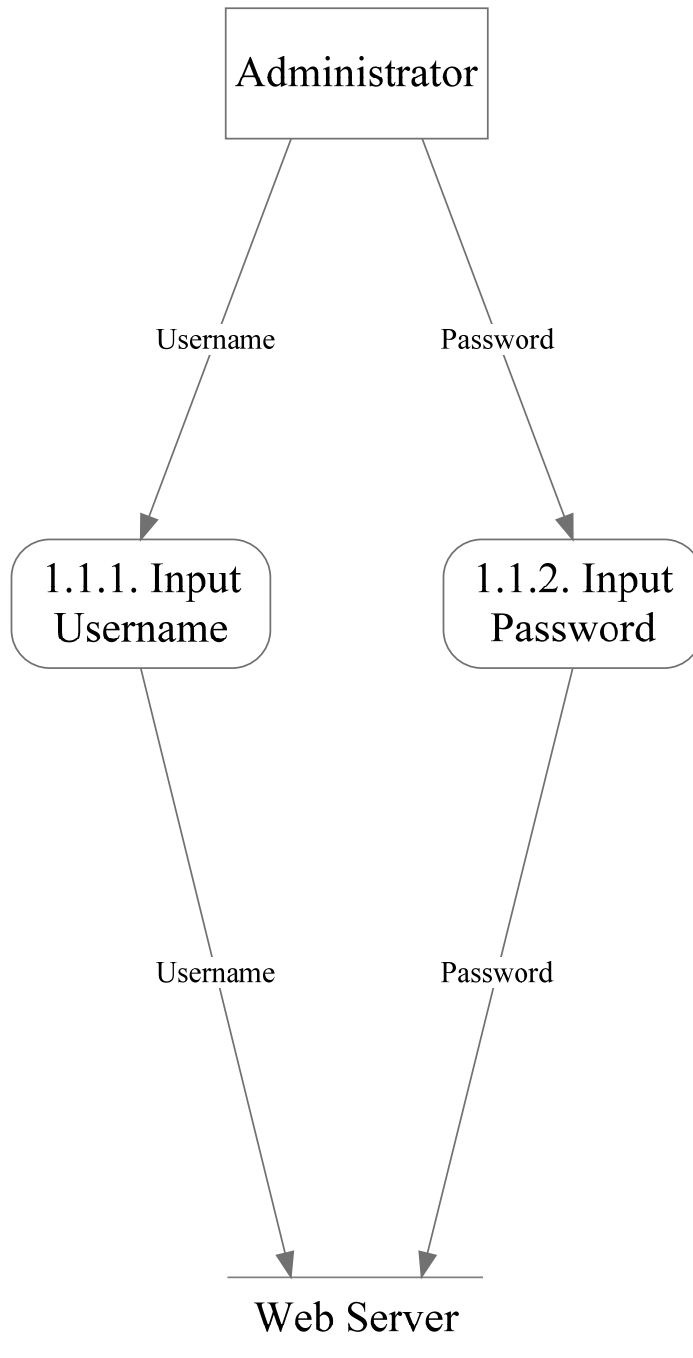
### FILET by FSH Tech Level 1: Process 1 Login



### 2.6.5 | Level 2 Diagram: Process 1.1 Input Login Info

The passing of the Administrator's username and password to the system

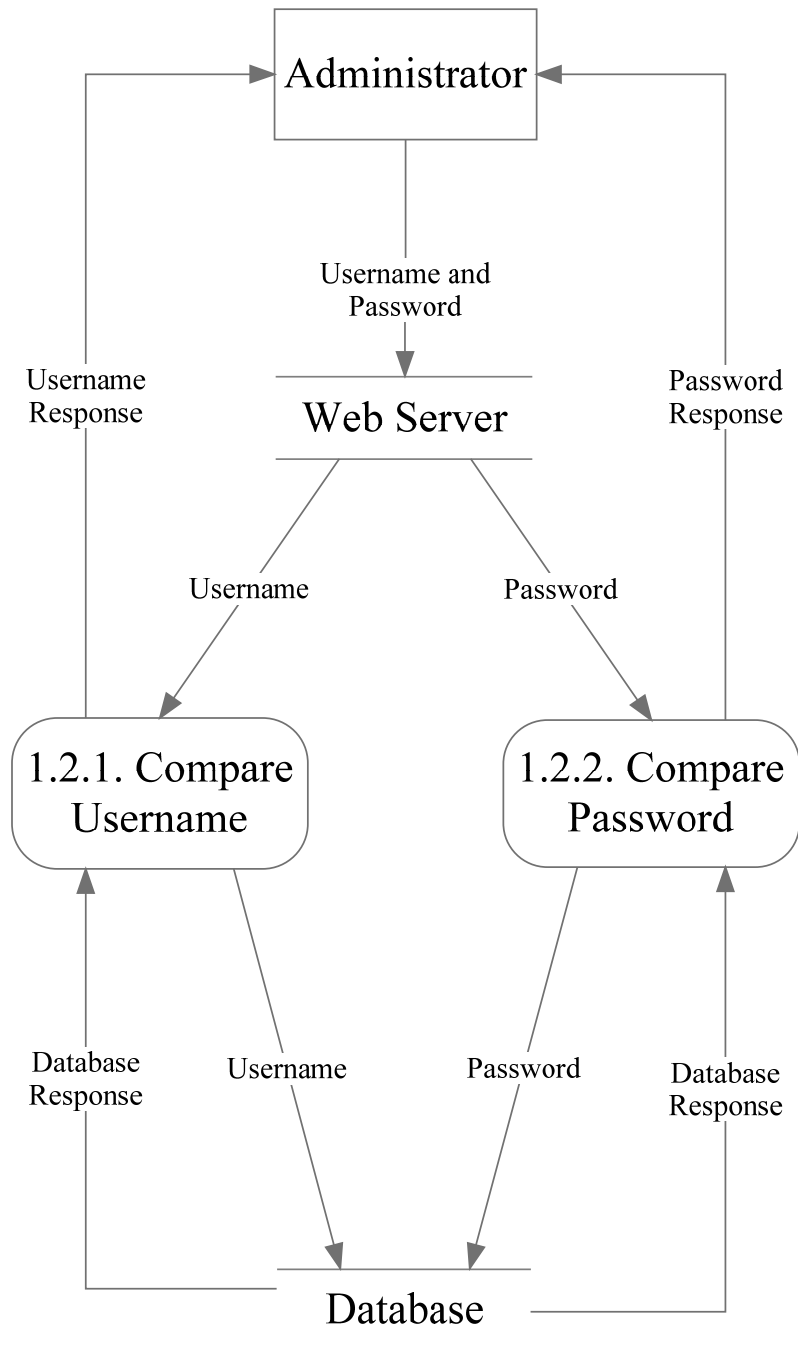
## FILET by FSH Tech Level 2: Process 1.1 Input Login Info



## 2.6.6 | Level 2 Diagram: Process 1.2 Verify Login Info

Verifying the Administrator's username and password against what is stored in the database

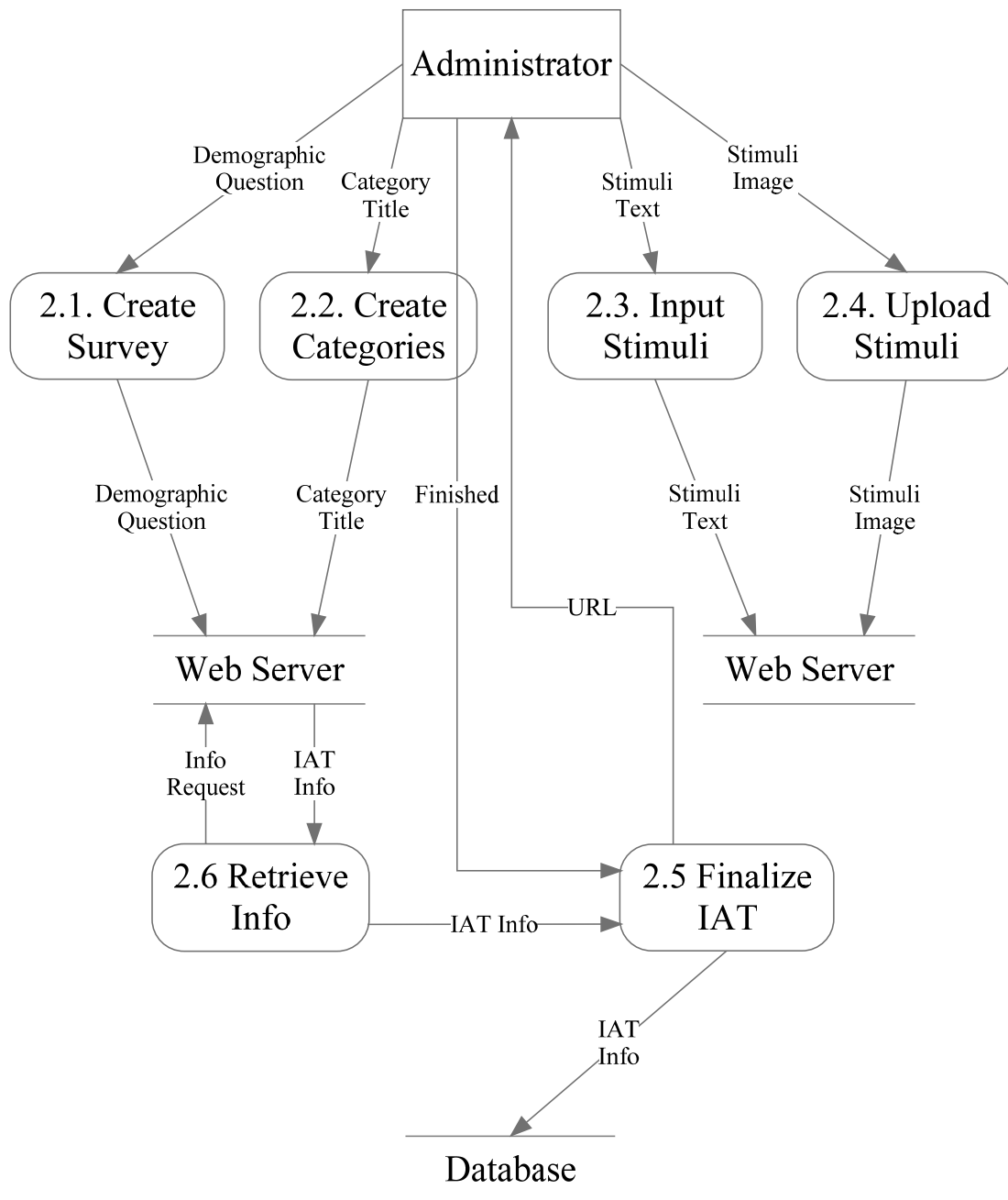
### FILET by FSH Tech Level 2: Process 1.2 Verify Login Info



## 2.6.7 | Level 1 Diagram: Process 2 Create IAT

The Administrator's process for creating a new IAT

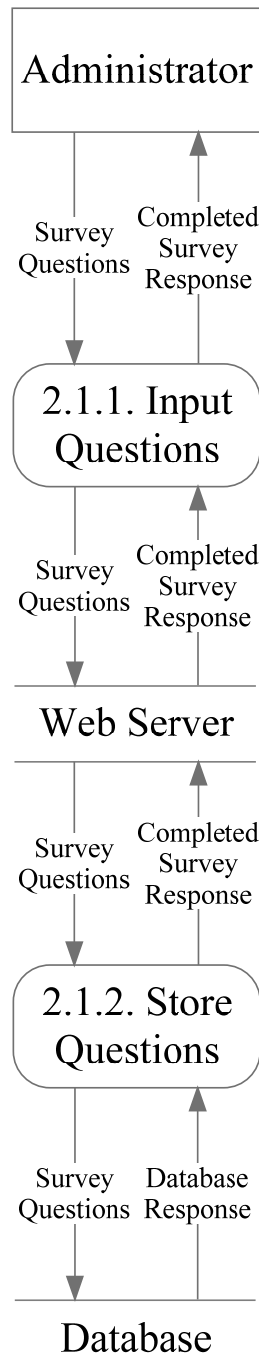
### FILET by FSH Tech Level 1: Process 2 Create IAT



## 2.6.8 | Level 2 Diagram: Process 2.1 Create Survey

Creating a survey to be associated with the new IAT

### FILET by FSH Tech Level 2: 2.1. Create Survey

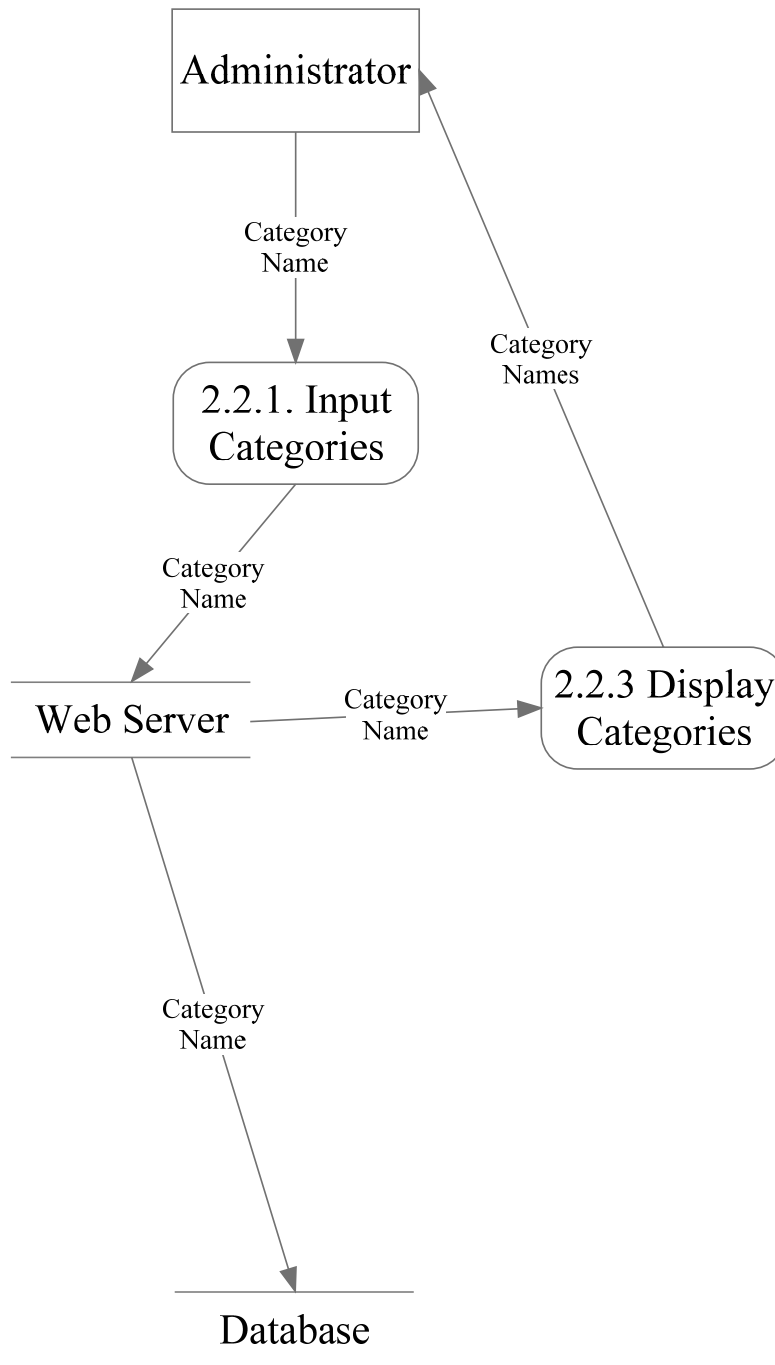




## 2.6.9 | Level 2 Diagram: Process 2.2 Create Categories

Inputting the four categories that will be used in the IAT

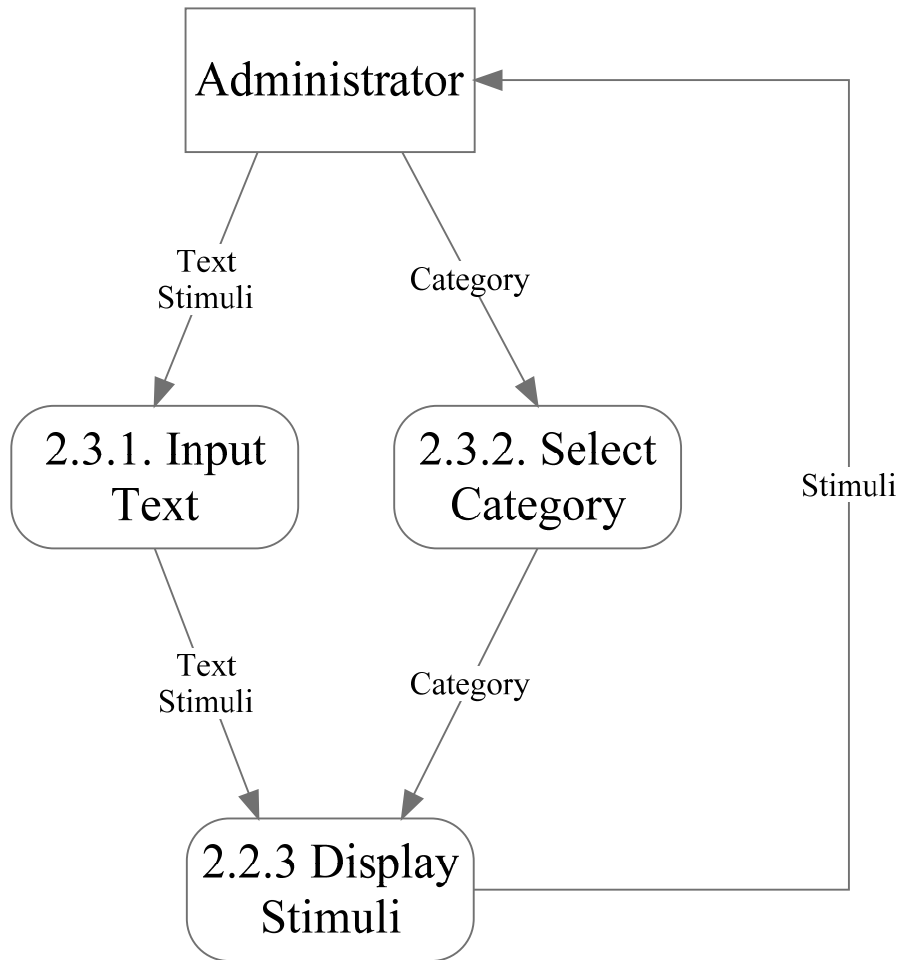
### FILET by FSH Tech Level 2: 2.2. Create Categories



### 2.6.10 | Level 2 Diagram: Process 2.3 Input Stimuli

Inputting the a text stimulus associated with one of the four categories which is then displayed on screen

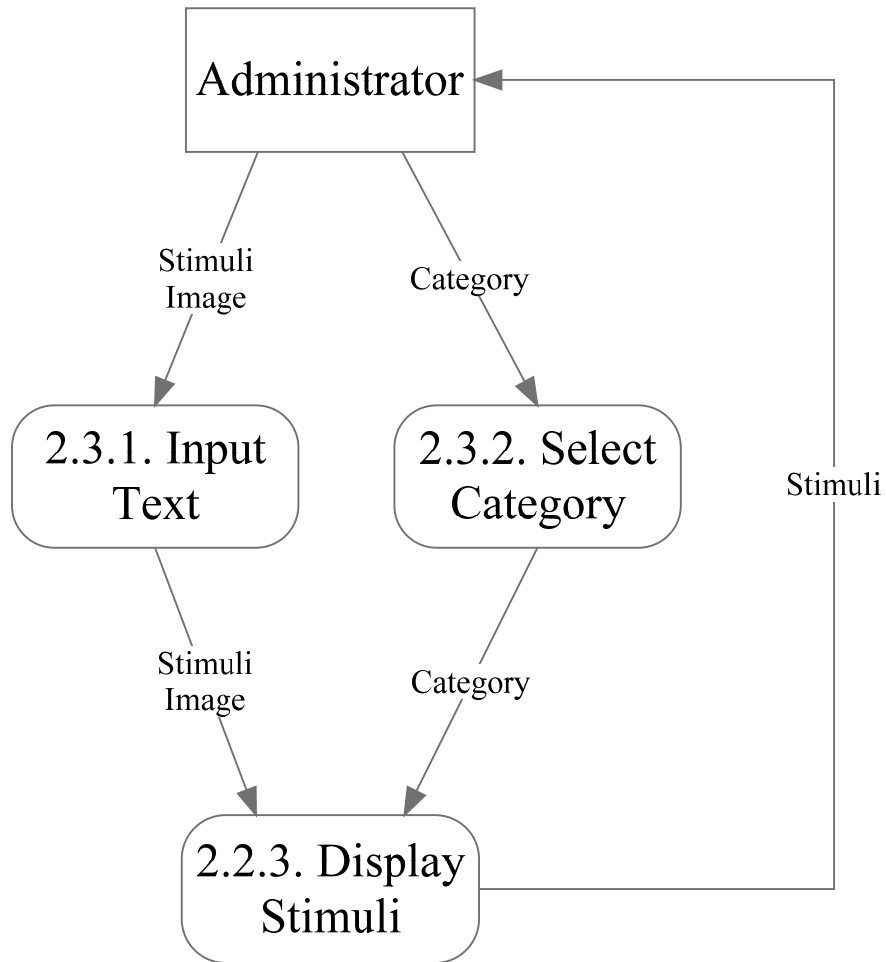
## FILET by FSH Tech Level 2: Process 2.3. Input Stimuli



### 2.6.11 | Level 2 Diagram: Process 2.4 Upload Stimuli

Uploading an image stimulus from the computer associated with one of the four categories which will then be displayed on screen.

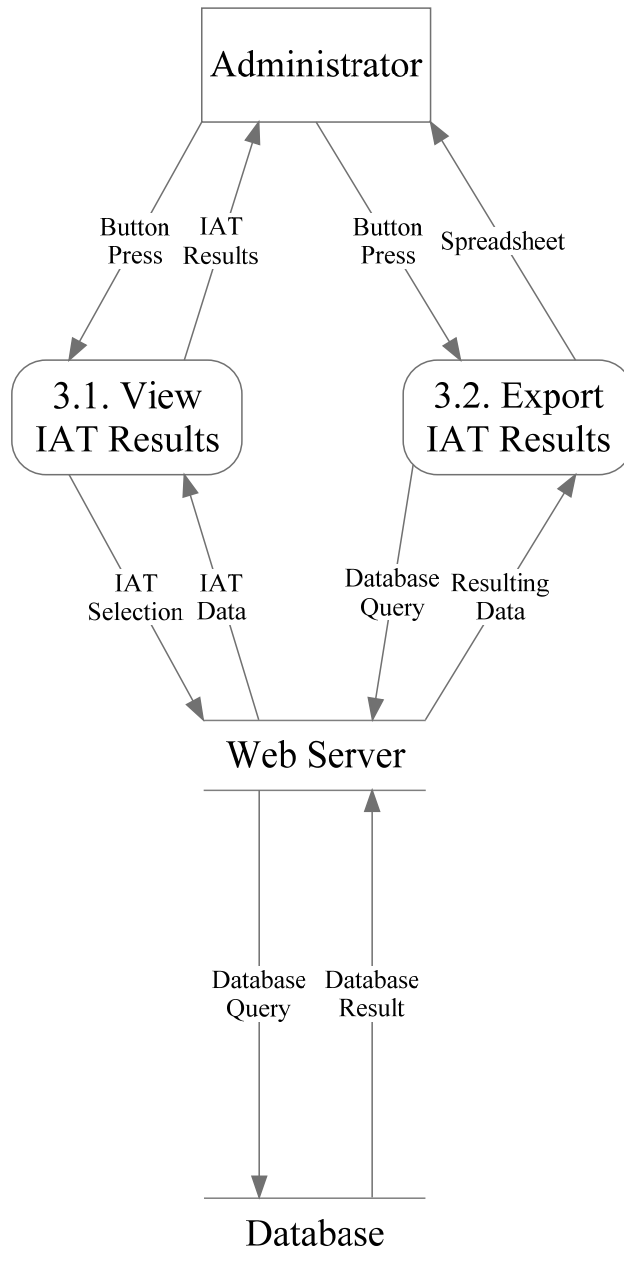
## FILET by FSH Tech Level 2: Process 2.4 Upload Stimuli



### 2.6.12 | Level 1 Diagram: Process 3 View IAT

The selection of an IAT by the Administrator for a more detailed view of data

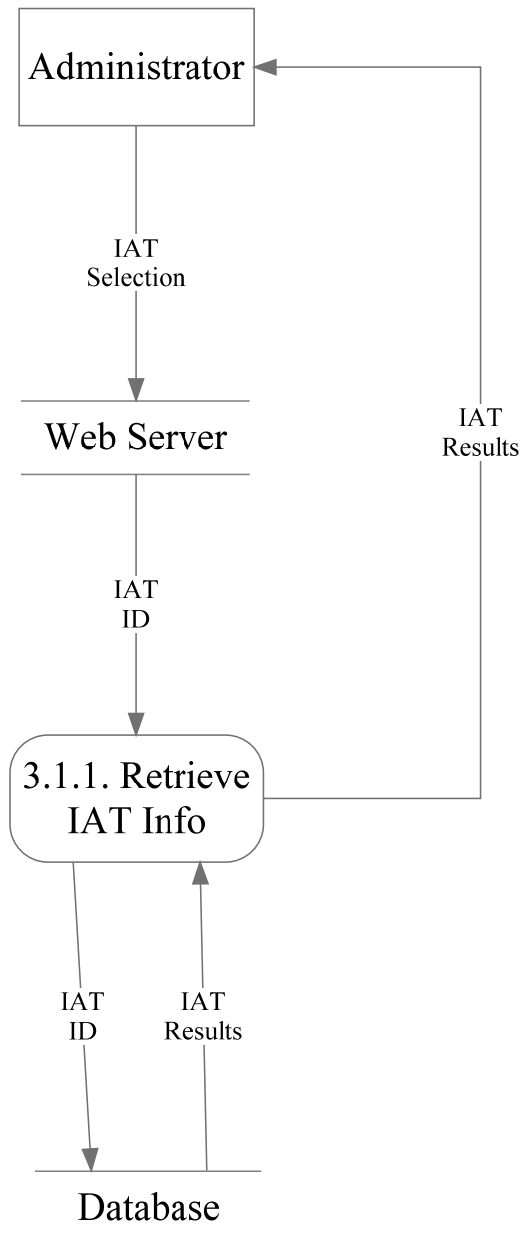
#### FILET by FSH Tech Level 1: Process 3 View IAT



### 2.6.13 | Level 2 Diagram: Process 3.1 View IAT Results

Viewing the test results of the selected IAT

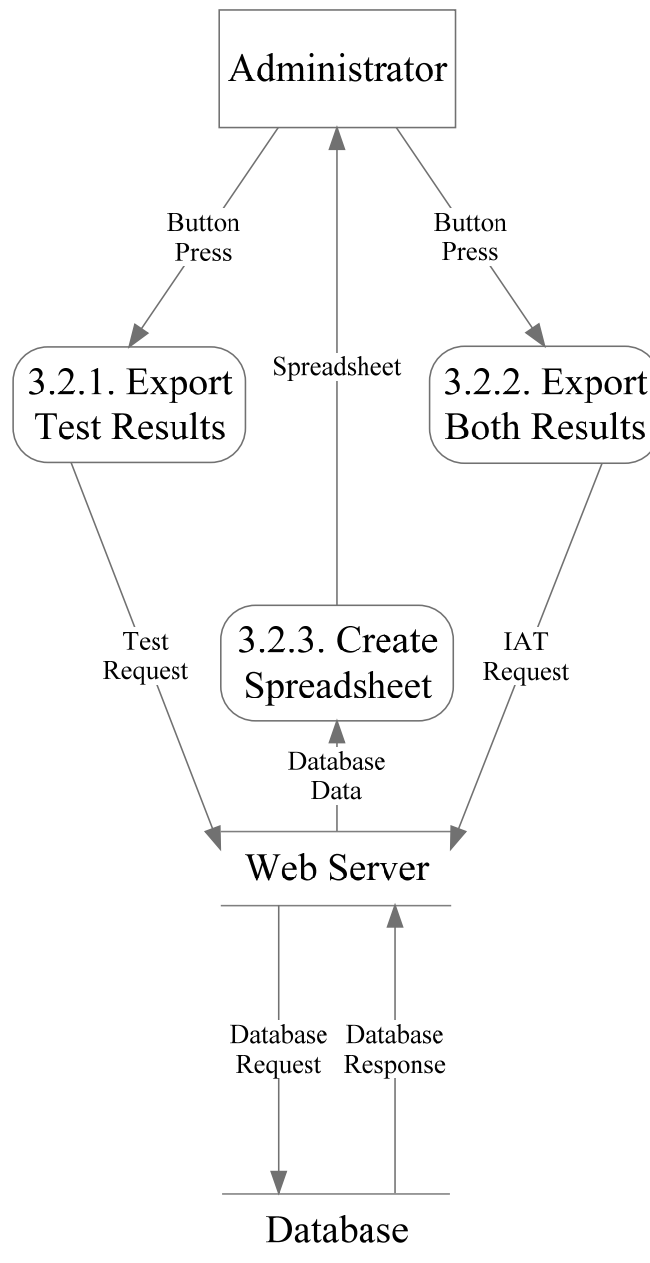
#### FILET by FSH Tech Level 2: Process 3.1 View IAT Results



## 2.6.14 | Level 2 Diagram: Process 3.2 Export IAT Results

Exporting either the test results or test results and survey data to a spreadsheet

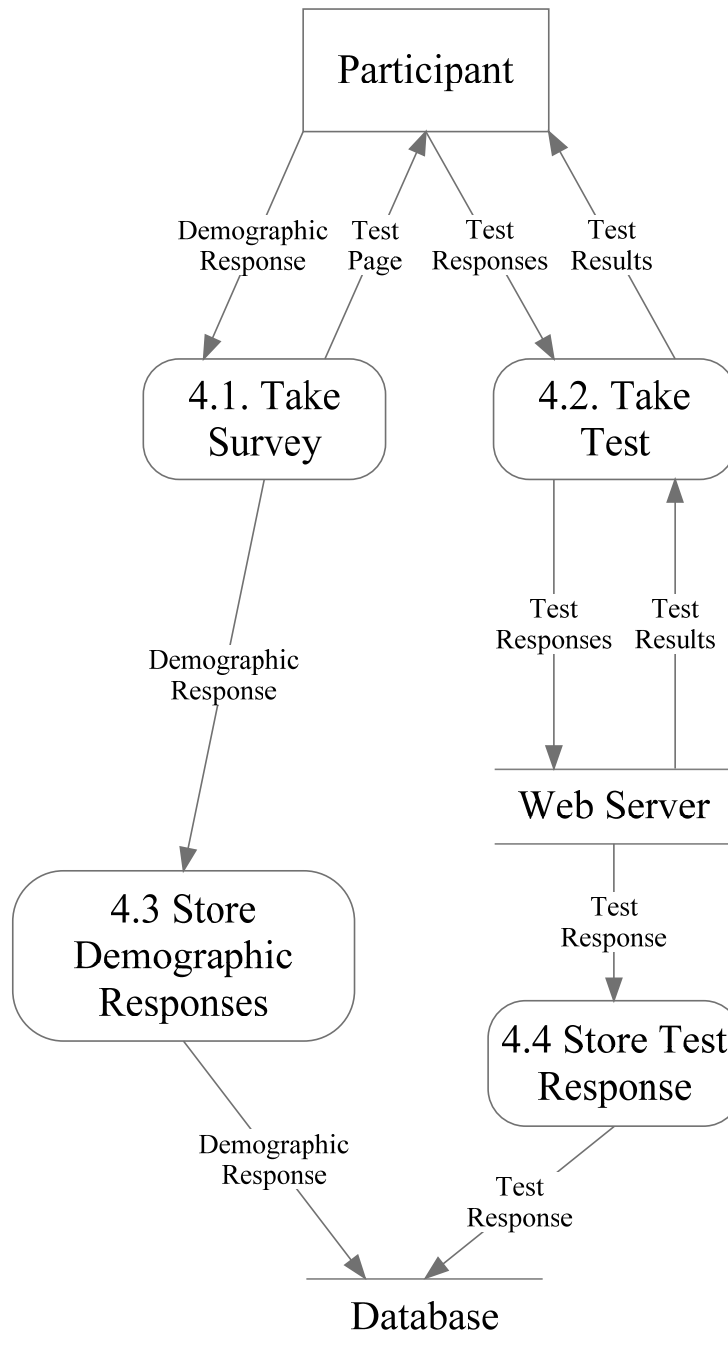
### FILET by FSH Tech Level 2: Process 3.2. Export IAT Results



## 2.6.15 | Level 1 Diagram: Process 4 Take IAT

The taking of the IAT by a Participant

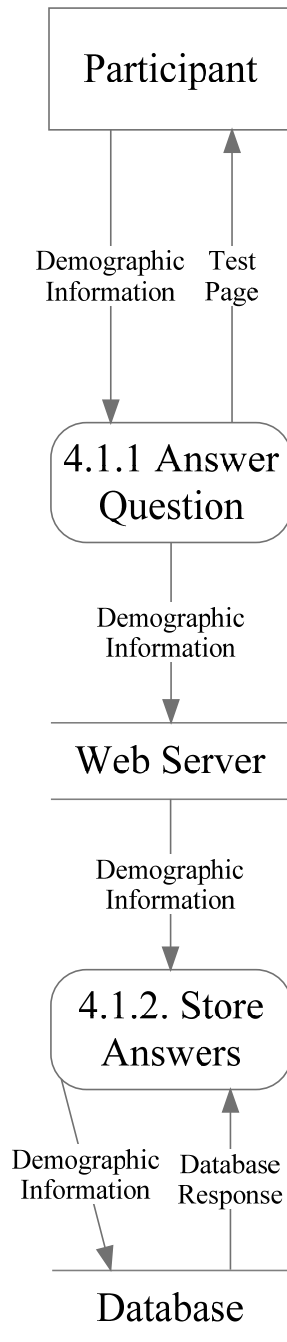
### FILET by FSH Tech Level 1: Process 4 Take IAT



## 2.6.16 | Level 2 Diagram: Process 4.1 Take Survey

The taking of the survey associated with the IAT by the Participant

### FILET by FSH Tech Level 2: Process 4.1. Take Survey

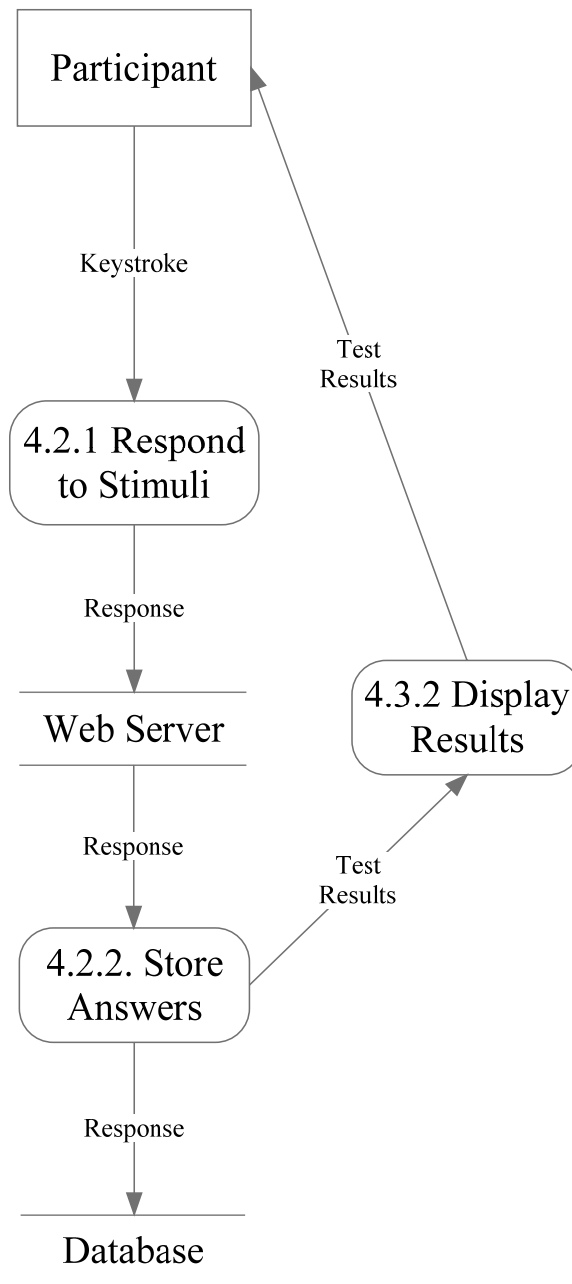




## 2.6.17 | Level 2 Diagram: Process 4.2 Take Test

The taking of the IAT test by the Participant

### FILET by FSH Tech Level 2: Process 4.2 Take Test



## 2.7 | Logical Data Dictionary

A Logical Data Dictionary is a list of all data entities that will be created, manipulated, or stored, as well as the variables, that exist within a system. The Data Dictionary consists of the name of the data, what type of data it stores, the applied processes, the size of the data, how it is used, and an example of what the system will accept, and what it will not accept.

Please see the attached file for the Logical Data Dictionary.

## 3 | Prototype Screens

### 3.1 | Administrator Prototypes

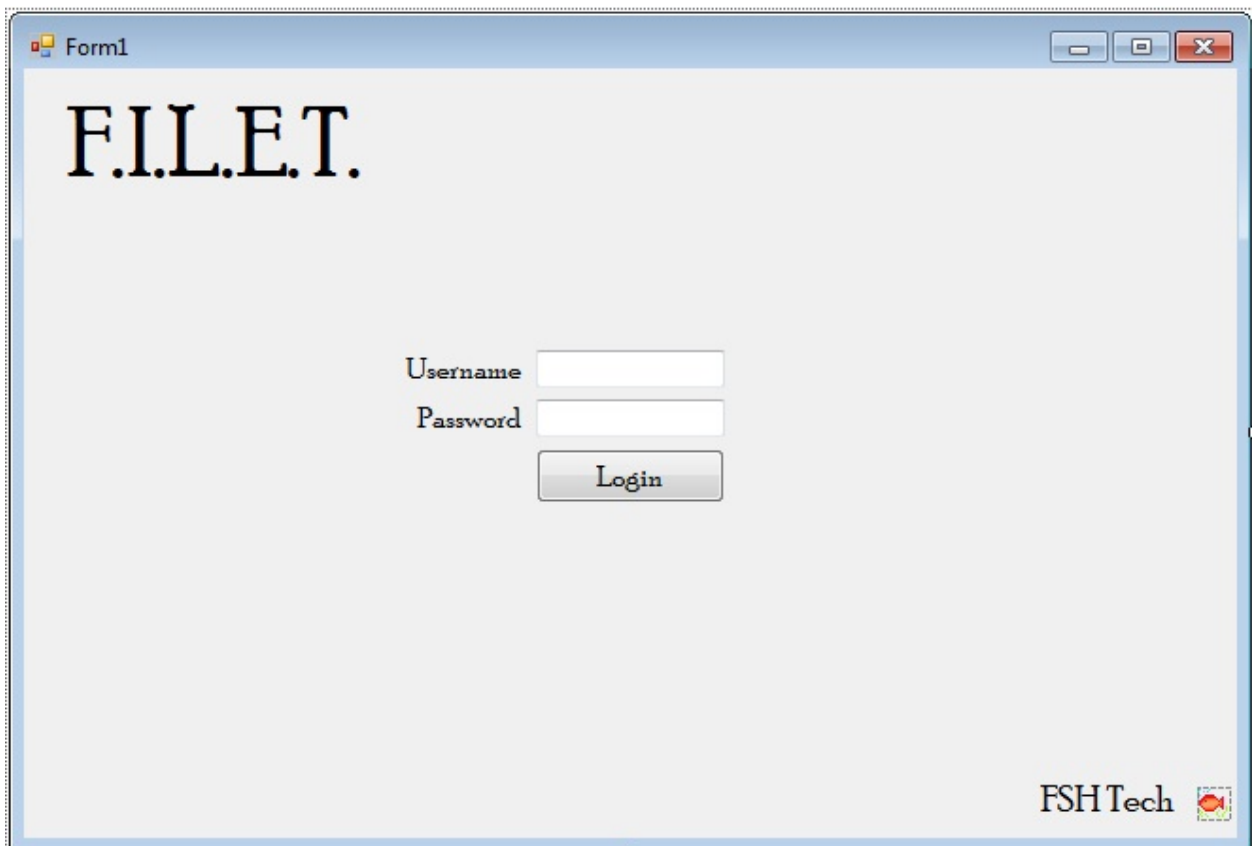
These are the prototypes of the screens that the Administrator will view when he is logged into F.I.L.E.T.

#### 3.1.1 | Login

When the Administrator first accesses the system, he will be prompted to log in.

##### 3.1.1.1 | Login Enter

When the administrator enters the system, he will be prompted with a blank screen asking for his username and password



The image shows a screenshot of a web browser window titled "Form1". The main content area displays the text "F.I.L.E.T." in a large, black, serif font. Below this text, there are two input fields: "Username" and "Password", each followed by a white text box. A "Login" button is positioned below the "Password" field. In the bottom right corner of the page, there is a logo for "FSH Tech" consisting of the text "FSH Tech" and a small square icon with a red and yellow design.

### 3.1.1.2 | Insert Information

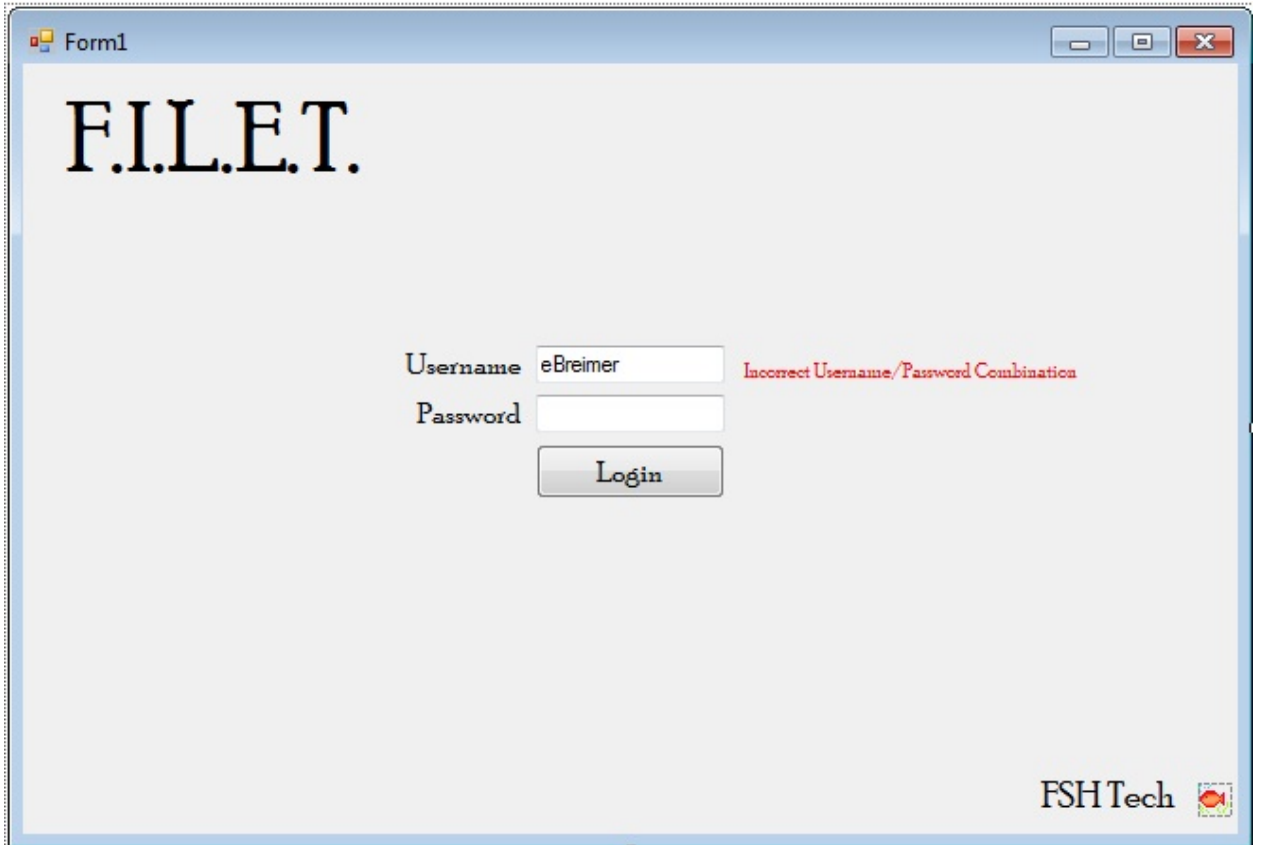
The Administrator enters in his username and password (which will be blocked from view), and when ready, will press “Login” to enter the system.



The image shows a screenshot of a web browser window titled "Form1". The main content area displays the text "F.I.L.E.T." in a large, bold, serif font. Below this, there is a login form with two input fields: "Username" containing the text "eBreimer" and "Password" containing a series of black dots. A "Login" button is positioned below the password field. In the bottom right corner of the form area, the text "FSH Tech" is displayed next to a small logo icon. The browser window has standard minimize, maximize, and close buttons in the top right corner.

### 3.1.1.3 | Bad Information Given

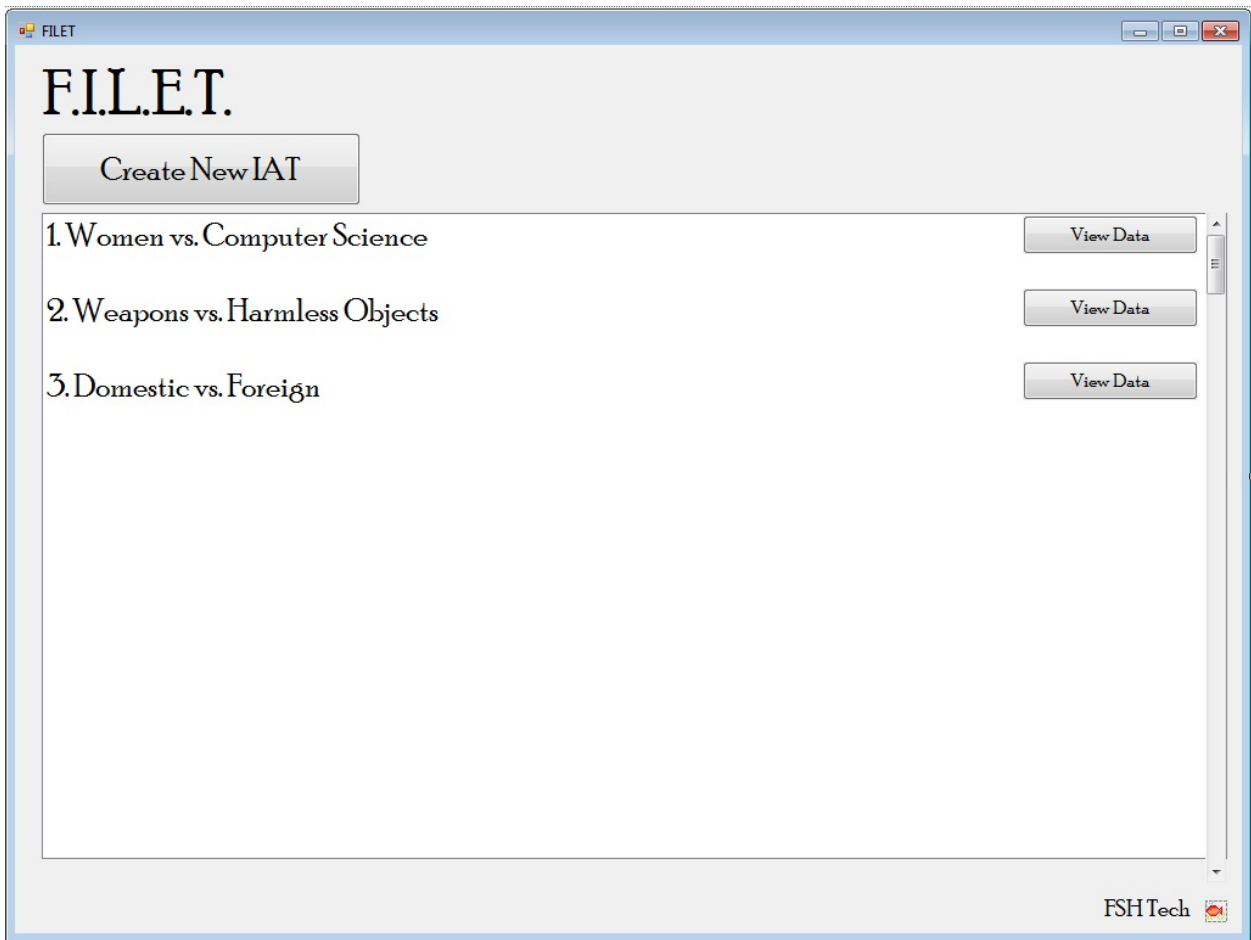
If there is an error with either the Administrator's username or password, there will be an error message, and he will be prompted to try again.



The screenshot shows a window titled "Form1" with a light gray background. At the top left, the text "F.I.L.E.T." is displayed in a large, black, serif font. Below this, there are two input fields: "Username" and "Password". The "Username" field contains the text "eBreimer". To the right of the "Username" field, the error message "Incorrect Username/Password Combination" is displayed in red text. Below the "Password" field is a "Login" button. In the bottom right corner of the window, the text "FSH Tech" is displayed next to a small logo.

### 3.1.2 | Home

Once the Administrator is logged in, he will be redirected to the Home screen, which lists the different IAT's he has created, with the option to view the data of each of them. This will direct him to the View Data screen. The Administrator will also have the option to create a New IAT on the Home page with the "Create New IAT" button.



### 3.1.3 | Create IAT

Once the Administrator presses the “Create IAT” button on the home page, he will be redirected to the “Create IAT” page.

#### 3.1.3.1 | Initial Screen

When “Create IAT” is first loaded, the Administrator will have the ability insert in the different categories that will exist in the IAT. There will be two pairs, the primary category being compared, and it’s opposite.

The screenshot shows a web browser window titled "Form1" displaying the "Create IAT" interface. The page layout includes the "F.I.L.E.T." logo on the top left, the "Create IAT" title in the center, and two buttons: "Create Survey" and "Finalize". Below these are two rows of input fields labeled "Pair 1" and "Pair 2". Each row has two columns: "Primary" and "Opposite", each with a text input field. The "FSHTech" logo is located in the bottom right corner of the page.

### 3.1.3.2 | Add Categories

Once the categories are filled in, there will be an option to insert in stimuli. These stimuli can be either text or images. There is a list of the stimuli that have been uploaded at the bottom of the screen, and the items in the list can be deleted once uploaded.

The screenshot shows a web browser window titled "Form1" displaying the "F.I.L.E.T. Create IAT" interface. The page features a header with the logo "F.I.L.E.T." and the title "Create IAT". Below the title are two buttons: "Create Survey" and "Finalize". The main content area is divided into two columns: "Primary" and "Opposite". Under "Primary", there are two rows: "Pair 1" with a text input containing "Women", and "Pair 2" with a text input containing "English". Under "Opposite", there are two rows: "Men" and "Computer Science". Below these inputs are two more text input fields labeled "Text" and "Image", followed by an "Add Stimuli" button. At the bottom of the form, there are four radio buttons labeled "Women", "Men", "English", and "Computer Science". Below the radio buttons is a table with three columns: "Stimuli", "Category", and "Delete". The table is currently empty. In the bottom right corner, there is a logo for "FSHTech".



### 3.1.3.3 | Add Text

One type of stimuli the Administrator can add to the IAT is text.

#### 3.1.3.3.1 | Adding Text

Text can be added to the system via the keyboard in the text box labeled “Text”. The administrator will have to distinguish what category the text belongs to using radio buttons.

The screenshot shows a web browser window titled "Form1" displaying the "F.I.L.E.T. Create IAT" interface. The page has a light gray background. At the top left is the logo "F.I.L.E.T." and at the top center is the title "Create IAT". Below the title are two buttons: "Create Survey" and "Finalize".

The main content area is divided into two columns for "Pair 1" and "Pair 2". Each pair has two input fields: "Primary" and "Opposite".

Pair	Primary	Opposite
Pair 1	Women	Men
Pair 2	English	Computer Science

Below the input fields are two more input fields: "Text" (containing "Book") and "Image". To the right of the "Image" field is an "Add Stimuli" button. Below these fields are four radio buttons for category selection: "Women", "Men", "English" (which is selected), and "Computer Science".

At the bottom of the form is a table with three columns: "Stimuli", "Category", and "Delete". The table body is currently empty.

In the bottom right corner of the page, there is a logo for "FSHTech" with a small red and white icon.

### 3.1.3.3.2 | Text Added

Once the “Add Stimuli” button is pressed, the text is added to the list at the bottom of the screen, and the system can accept the next stimuli input

The screenshot shows a window titled "Form1" with the following elements:

- Header:** "F.I.L.E.T." on the left and "Create IAT" in the center.
- Buttons:** "Create Survey" and "Finalize" at the top.
- Form Fields:**
  - Primary:** "Pair 1" with "Women" and "Pair 2" with "English".
  - Opposite:** "Men" and "Computer Science".
  - Text:** "Book" (with an empty input field).
  - Image:** (with an empty input field).
- Radio Buttons:** "Women", "Men", "English" (selected), and "Computer Science".
- Action:** "Add Stimuli" button.
- Table:**

Stimuli	Category	Delete
Book	English	X
- Footer:** "FSHTech" logo in the bottom right corner.

### 3.1.3.4 | Add Images

The other stimuli that the system can accept are images uploaded by the Administrator via a file uploader.

#### 3.1.3.4.1 | Adding Image

The Administrator will be able to locate where the image is located, and indicate this path to the system. The administrator will have to distinguish what category the image belongs to using radio buttons.

**F.I.L.E.T.** **Create IAT**

Create Survey Finalize

Pair 1 Primary: Women Opposite: Men  
Pair 2 Primary: English Opposite: Computer Science

Text:  Image: C:\Desktop\jacl Add Stimuli

Women  Men  English  Computer Science

Stimuli	Category	Delete
Book	English	X
Mouse	Computer Science	X



FSHTech

### 3.1.3.4.2 | Image Added

When the image is uploaded to the system, a thumbnail of the image will appear in the list, as well as the category it belongs to.

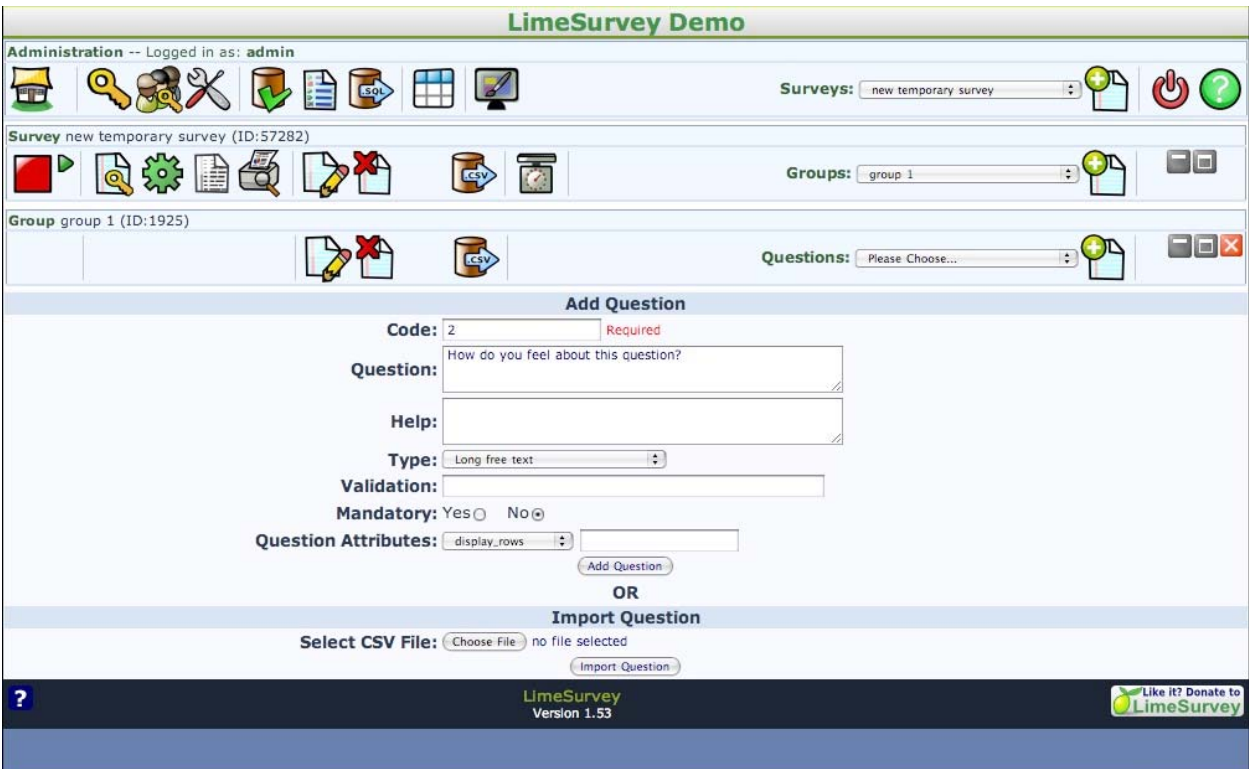
The screenshot shows a web application window titled "Form1" with the following elements:

- Logo: **F.I.L.E.T.**
- Section Header: **Create IAT**
- Buttons: "Create Survey" and "Finalize"
- Form Fields:
  - Primary**: "Pair 1" (Women), "Pair 2" (English)
  - Opposite**: "Men", "Computer Science"
  - Text**: Empty input field
  - Image**: "C:\Desktop\jaci" with an "Add Stimuli" button
- Radio Buttons:  Women,  Men,  English,  Computer Science
- Table:

Stimuli	Category	Delete
Book	English	X
Mouse	Computer Science	X
	Men	X
- Footer: FSH Tech 

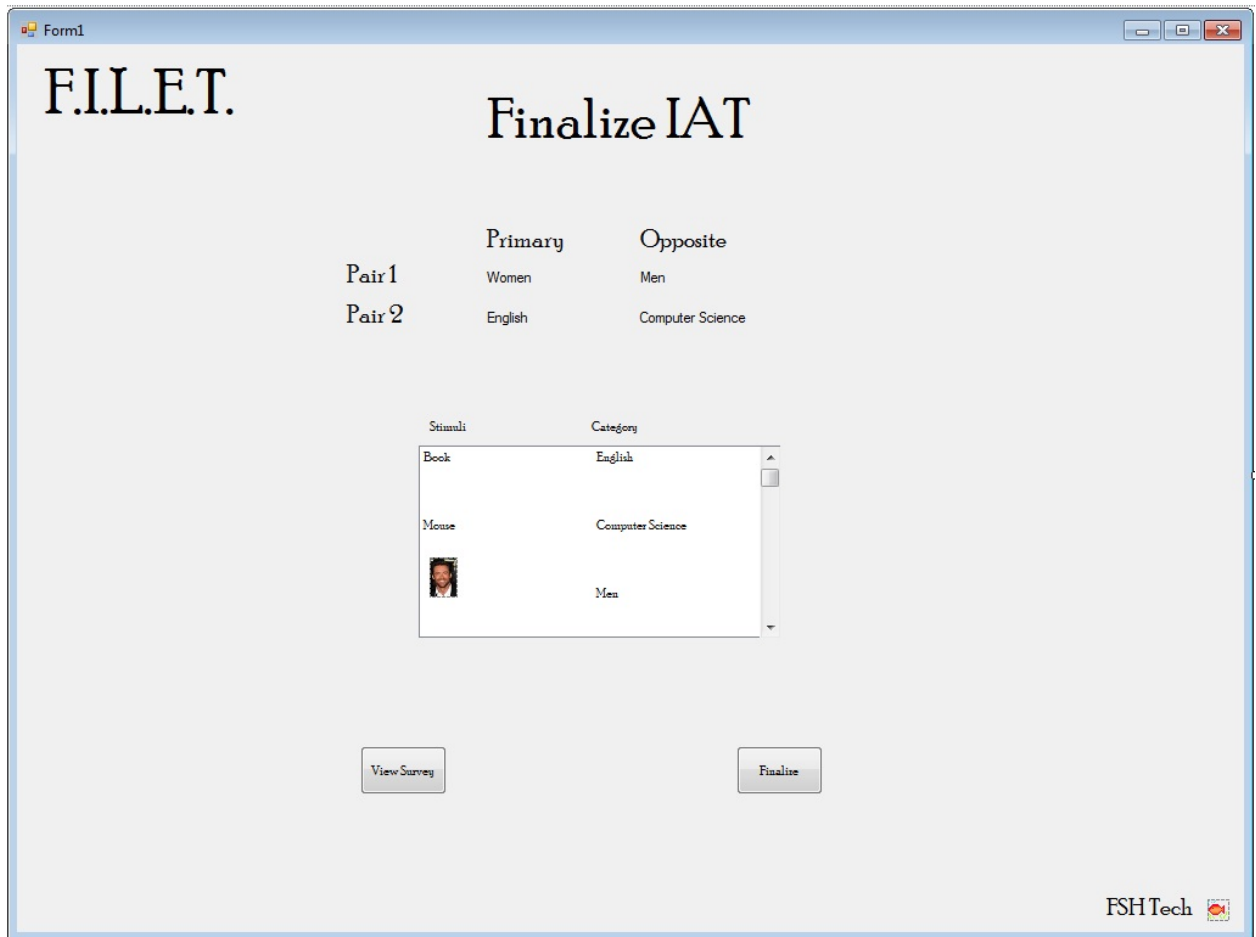
### 3.1.3.5 | Create Survey

When the Administrator is creating the IAT, he will have to create a survey to go along with the test questions, in order to find out more information about the Participant taking the IAT. F.I.L.E.T. will be using the system Lime Survey in order to create and administer the survey questions.



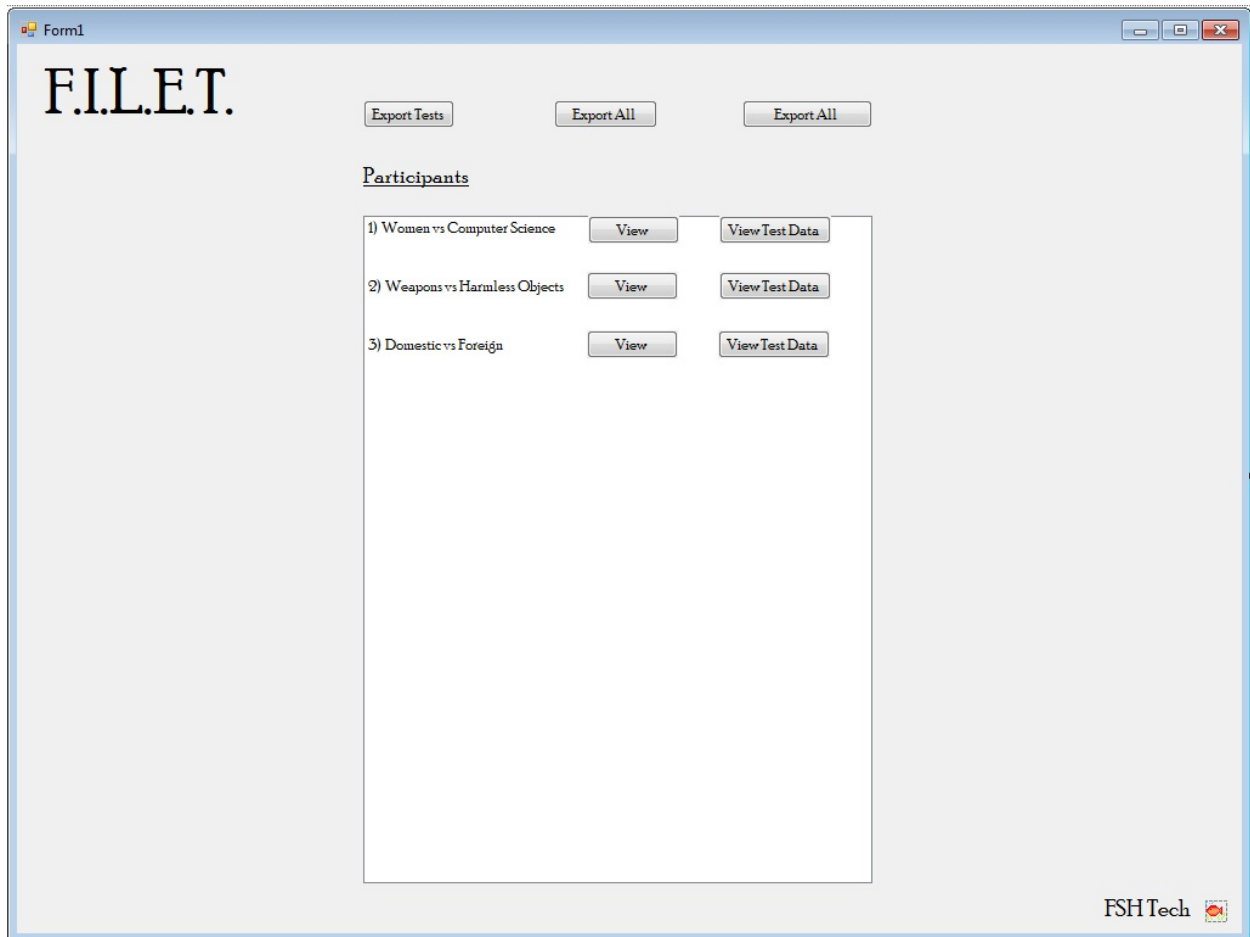
### 3.1.3.6 | Finalize IAT

Once the Administrator feels that he is done uploading stimuli objects, he will press the “Finalize” button, which will lead him to this screen, where he can view all of the components of the IAT before it is generated by the system. Clicking “View Survey” will display what the survey will look like, and clicking “Finalize” here will create the IAT and host it.



### 3.1.4 | View Data

After Participants have taken the IAT, the Administrator will be able to view the results of the participants. There will be a list of the different IAT's, with an option to view the data. There will also be buttons at the top of the screen to export the data to a spreadsheet.

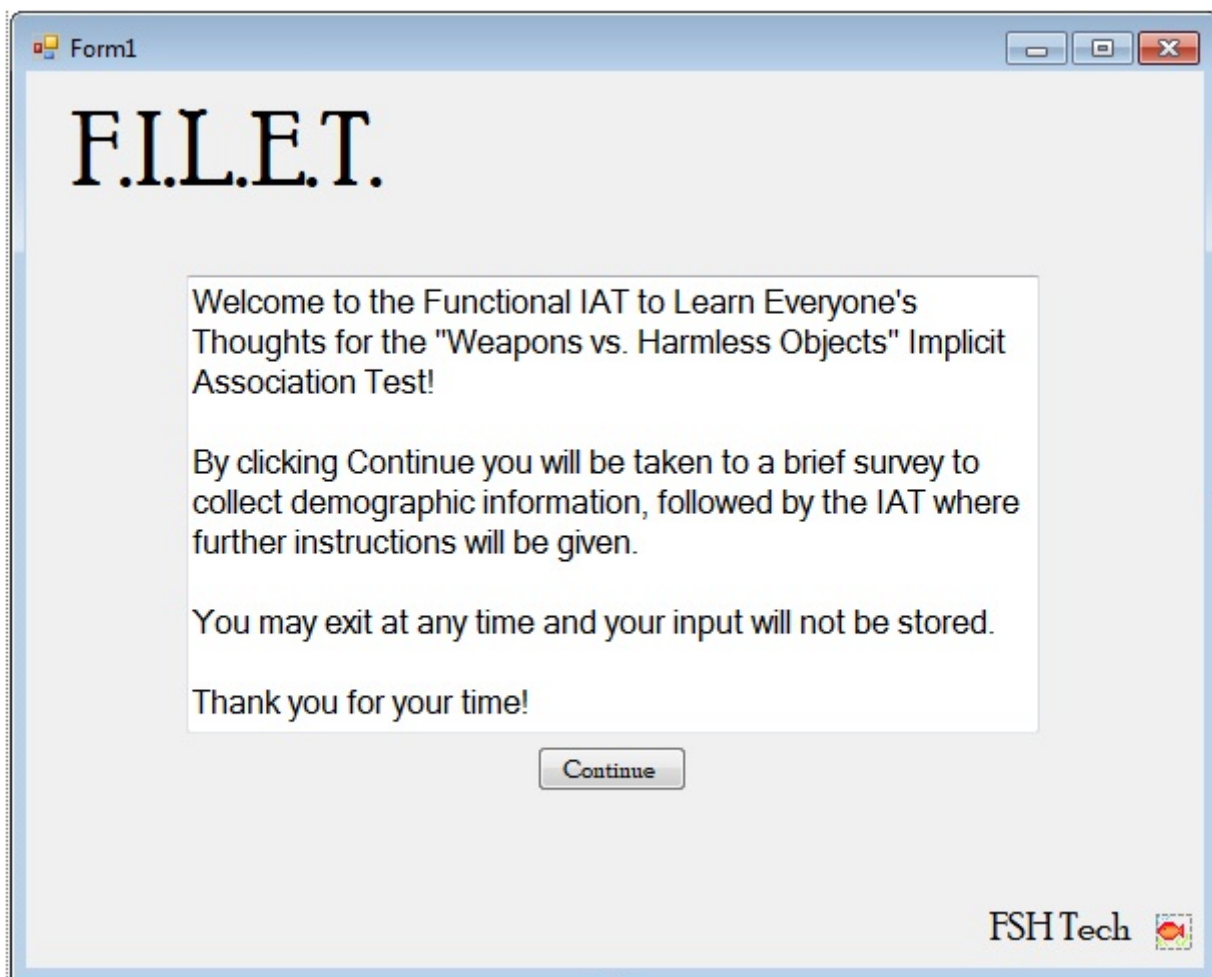


## 3.2 | Participant Prototypes

These are the prototypes of the screens the Participant will see when they go to take the IAT the Administrator has created.

### 3.2.1 | IAT Welcome

When the Participant first clicks on the link to take the IAT, they are greeted with a Welcome screen, where they can read the instructions on how to take the test, and then they can press “Continue” if they agree to take the test.



The image shows a screenshot of a web browser window titled "Form1". The main heading is "F.I.L.E.T." in a large, serif font. Below the heading, there is a white text box containing the following text: "Welcome to the Functional IAT to Learn Everyone's Thoughts for the 'Weapons vs. Harmless Objects' Implicit Association Test!". Below this, it says: "By clicking Continue you will be taken to a brief survey to collect demographic information, followed by the IAT where further instructions will be given." Then: "You may exit at any time and your input will not be stored." Finally: "Thank you for your time!". At the bottom center of the text box is a "Continue" button. In the bottom right corner of the browser window, there is a logo for "FSH Tech" with a small icon next to it.



### 3.2.2 | Survey

After the Participant reads the instructions on the welcome screen, they will have to take a survey, which the Administrator created using Lime Survey.

**LimeSurvey - User-Feedback Survey**

0%  100%

English ▾

**General Questions about LimeSurvey**

**How did you find out about LimeSurvey?**  
Choose one of the following answers

- Search Engine (i.e. Google)
- Sourceforge
- Freshmeat.net
- Fantastico/CPanel
- StumbleUpon
- A hint from somebody
- A link in a blog/forum/newsletter
- Other:
- No answer

**In which area(s) do/intend you to use LimeSurvey?**  
Check any that apply

- Personal/recreational use
- In a for-profit business
- In a non-profit business
- In an academic setting (includes research institutions)
- For a government project
- Other:

**What is your current position?**  
Choose one of the following answers

- Student
- Entry Level
- Experienced (Non-Manager)
- Manager (Manager/Supervisor of Staff)
- Executive (SVP, VP, Department Head, etc)
- Senior Executive (President, CFO, etc)
- Other:
- No answer

**What is your highest educational degree?**  
Choose one of the following answers

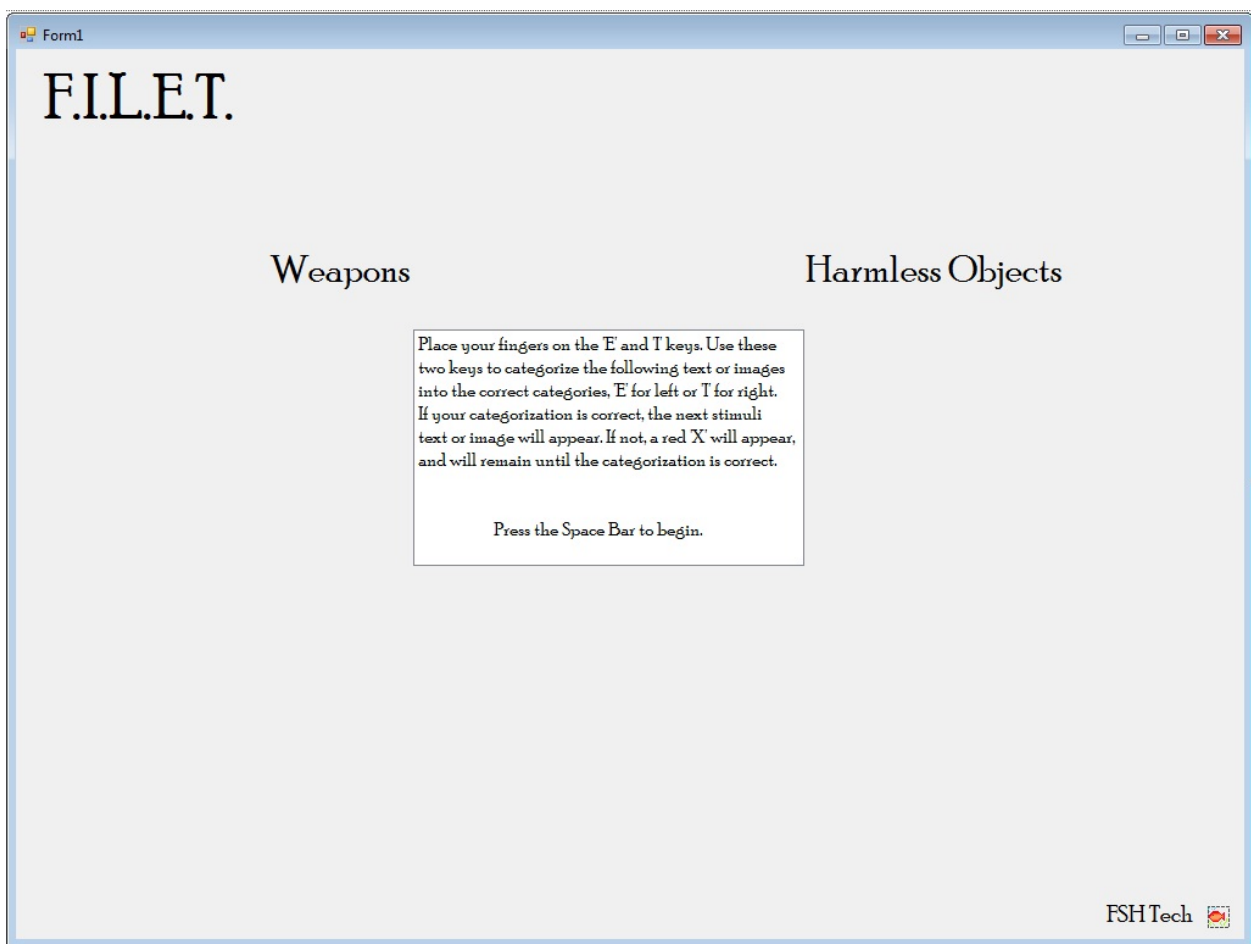
- Doctorate
- College degree
- High-School
- No answer

### 3.2.3 | Take IAT

Once the survey is completed, the Participant will then be allowed to take the test portion of the IAT.

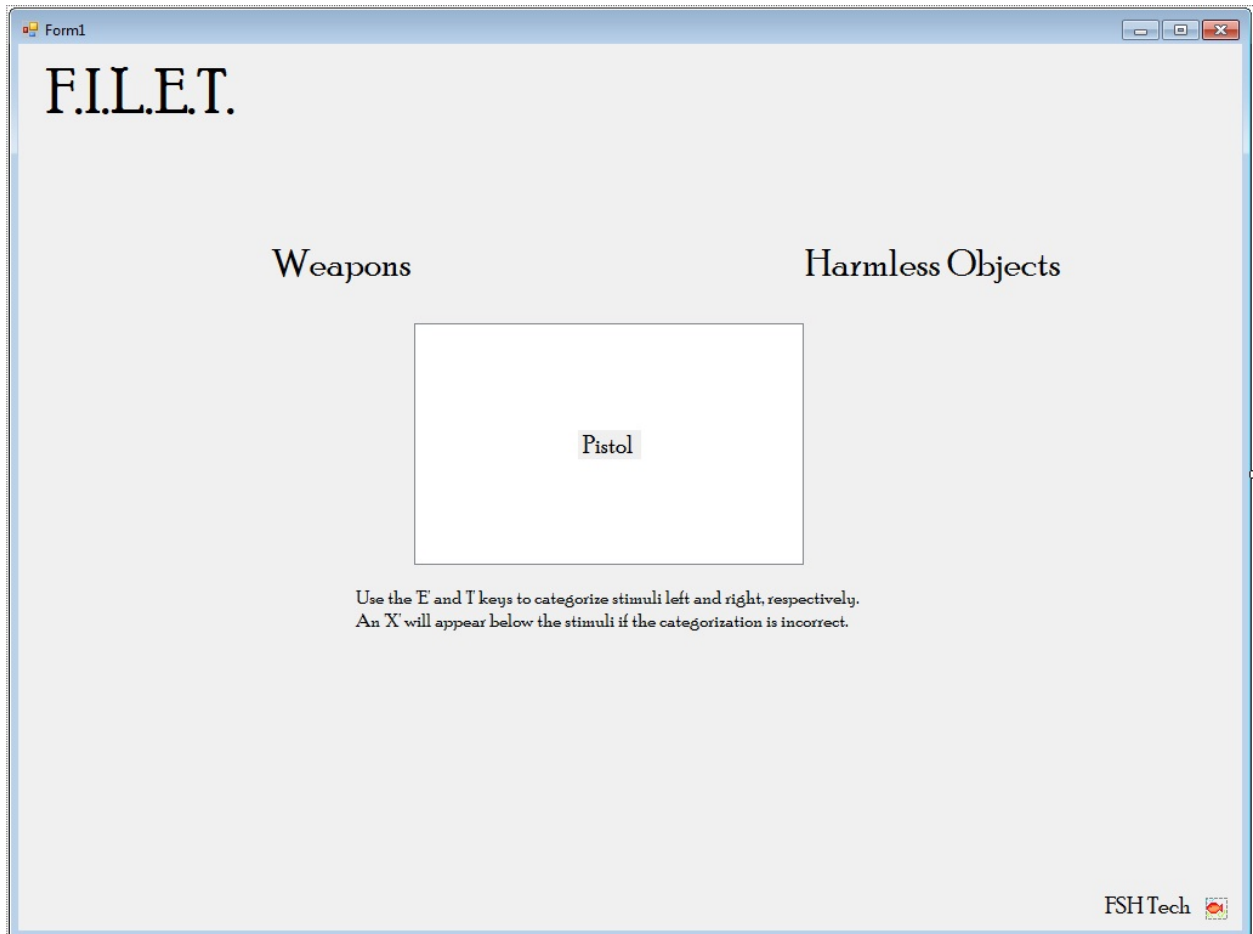
#### 3.2.3.1 | IAT Instructions

In between each session, there will be instructions on how to complete the IAT. The Participant will have to click the Space Bar in order to begin the test.



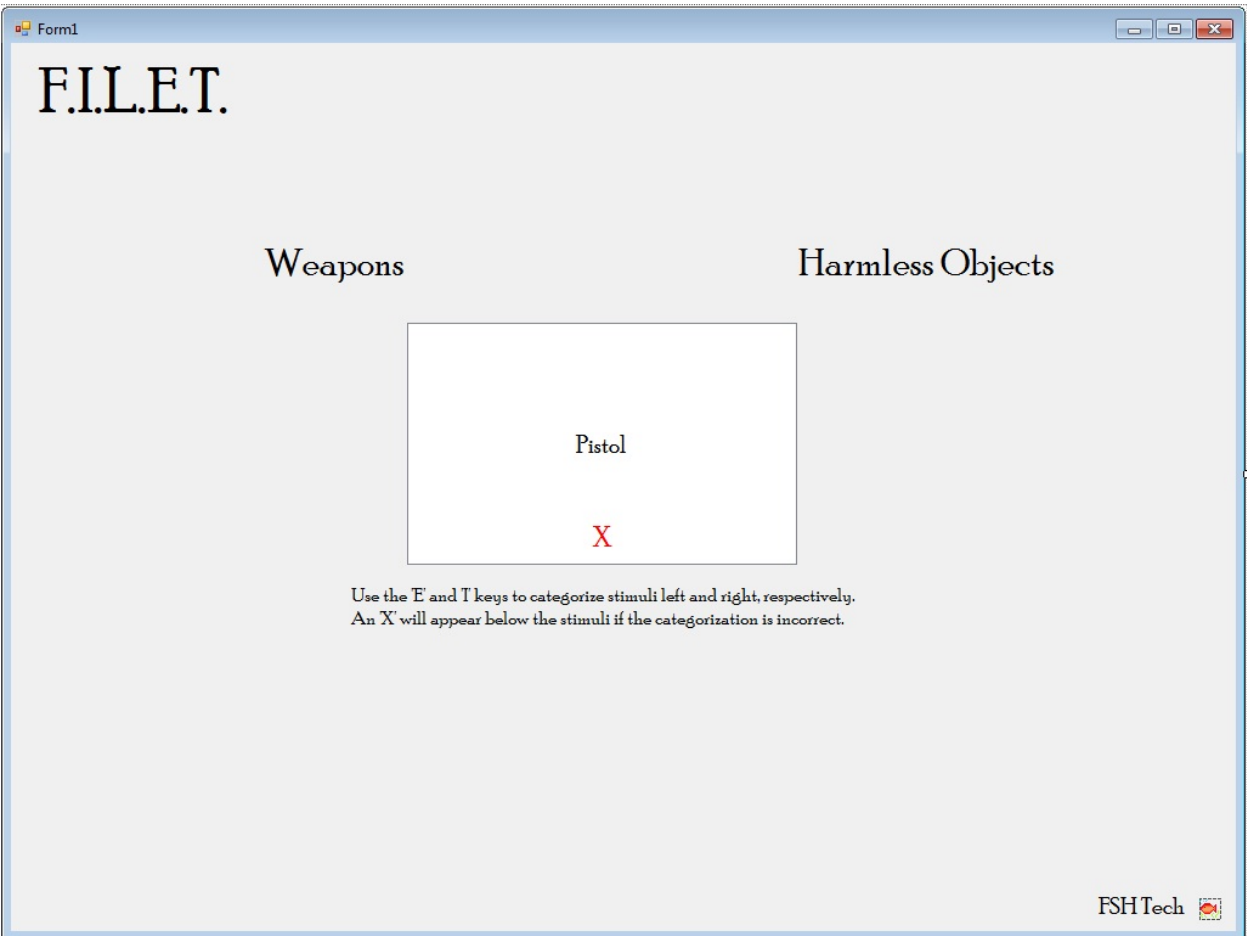
### 3.2.3.2 | IAT Question

During the test, there will be stimuli objects appearing on the screen. There will be two categories on either side, and the Participant will have to decide which category the stimuli object belongs to, by pressing 'E' for the category on the left, or 'I' for the category on the right.



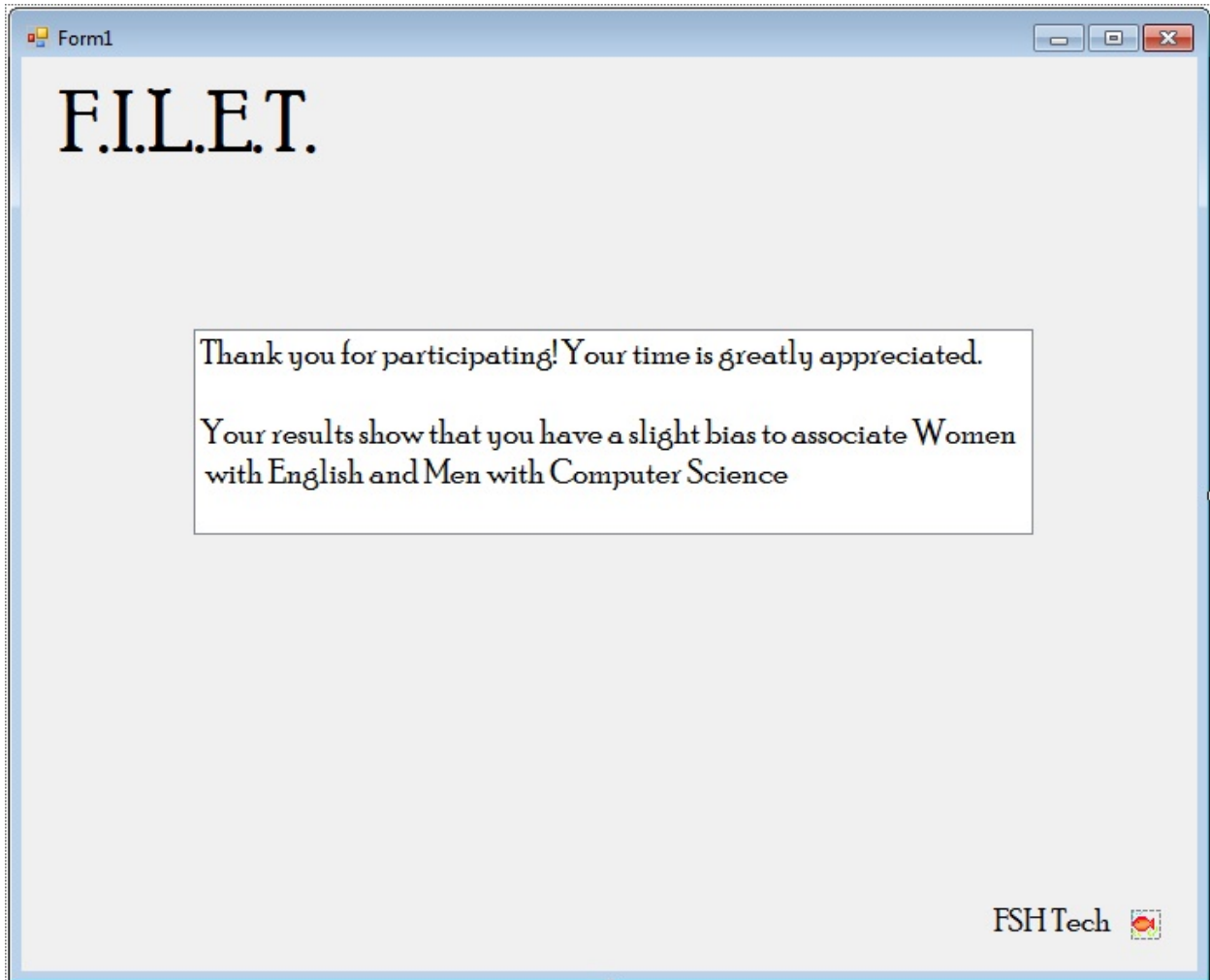
### 3.2.3.3 | Incorrect Answer

The system will be able to tell if the answer the Participant gives is correct, and if the Participant cannot correctly identify which category the stimuli falls into, the system displays an error message to the user.



### 3.2.3.4 | View Results

In some cases, the Participant is allowed to view their results of their test, if the Administrator permits. If this is the case, this window shows at the end of the test.



## **4 | Test Plan**

### **4.1 | Overview and Strategy**

Since the system is web-based it must work on all major browsers, and will therefore be tested on Google Chrome, Internet Explorer, Mozilla Firefox and others if time allows. Within the system, each piece will be tested individually to ensure that the system will be bug-free once they are all integrated. The Unit Testing attachment lays out a preliminary plan for testing pieces of the system at a base level.

### **4.2 | Acceptance Test and Criteria**

The system will be accepted under the criteria that it meets all of the Functional and Non-Functional Requirements which are listed earlier in this document and are also subject to change before the completion of the project.

### **4.3 | Unit Testing**

Please see the attached file for the Unit Tests

## 5 | Appendices

### 5.1 | Glossary of Terms

**C++:** (Pronounced “C plus plus”) is a compiled general-purpose programming language regarded as a middle-level language.

**Classic Waterfall Model:** A basic software development strategy that clearly labels each phase of the software engineering process. The strategy follows consecutively the following steps: Requirements Specification, Design, Construction, Verification, and Maintenance

**CSS:** (Cascading Style Sheets) are used to describe a specific style for a web page or set of pages.

**Gantt Chart:** A type of bar chart that illustrates a project schedule. This chart illustrates the start and finish dates of the terminal elements and summary elements of a project.

**HTML:** (HyperText Markup Language) is a scripting language used to design the structural layout of a website.

**IAT:** (Implicit Association Test) measures within a social psychology design to detect the strength of a person’s automatic association between mental representations of object (concepts) in memory.

**JavaScript:** An object-oriented scripting language used to enable programmatic access to objects within both the client application and other applications.

**MySQL:** An open source relational database management system.

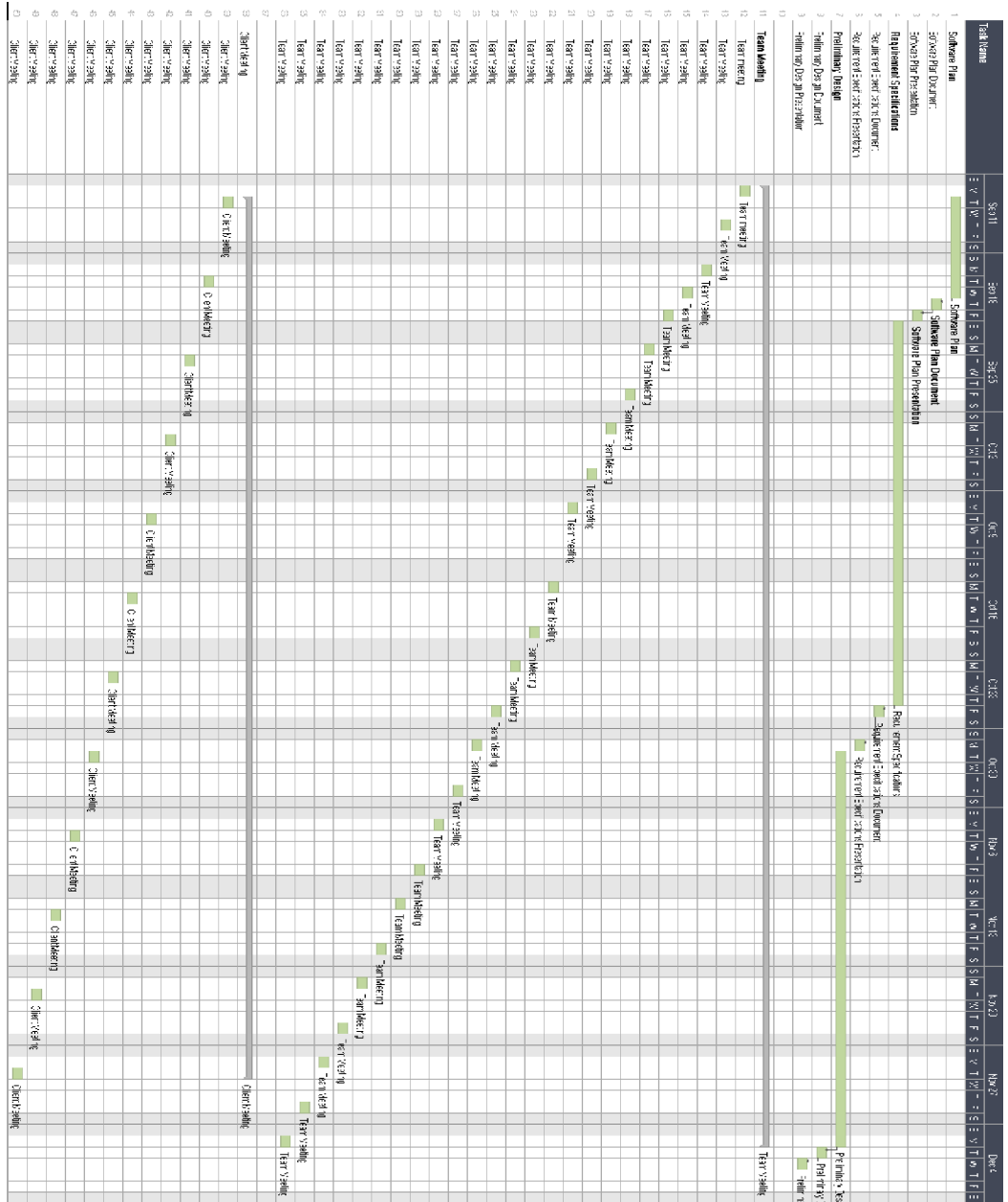
**PHP:** (PHP Hypertext Preprocessor) a widely-used, general-purpose scripting language that is especially well-suited for web development and can be embedded into HTML.

**XHTML:** (Extensible Hypertext Markup Language) is a reformation of HTML as an XML application.

**XML:**(Extensible Markup Language) A set of rules for encoding documents electronically.

# 5.2 | Timeline

## 5.2.1 | Gantt Chart Fall 2011





## 5.2.2 | Gantt Chart Spring 2012

# FSH Tech Spring 2012

