



**DSI**

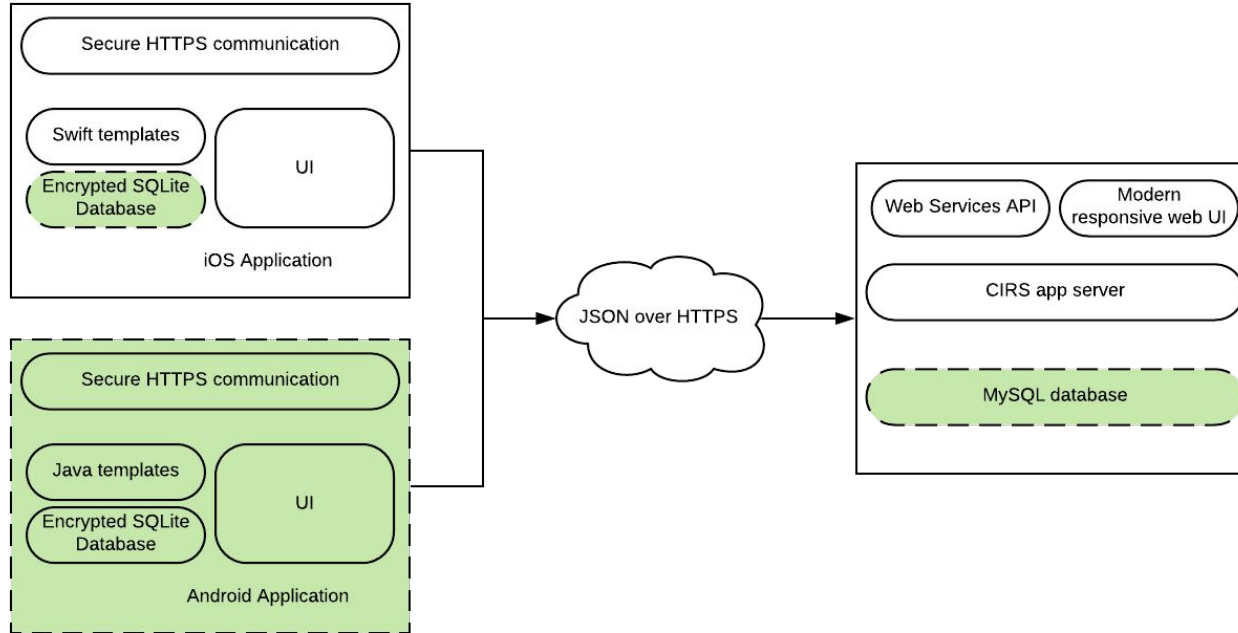
# Death Scene Investigation Application

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# Presentation Overview

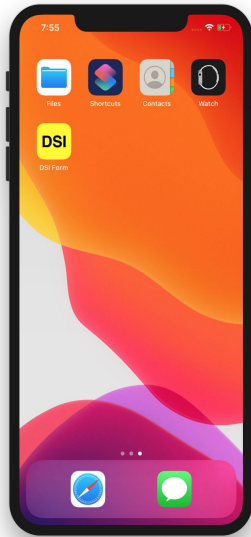
- System Overview
- User Interface Design
- Database Design
- QA Results
- Test Cases
- Metrics

# System Overview



Architecture Diagram depicting a high level structure of our system

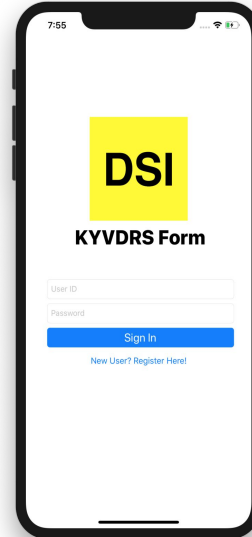
# User Interface Design



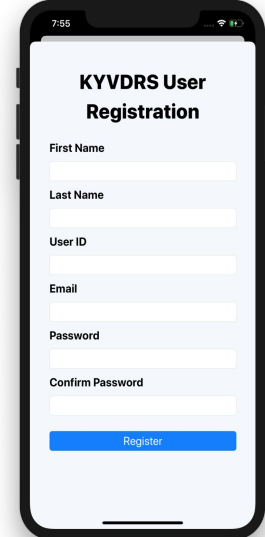
iPhone 11 Pro Max — 13.0



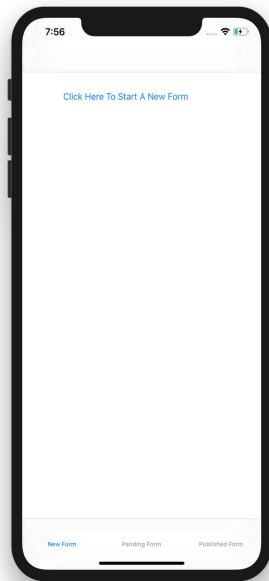
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The screen displays a form titled "Death Scene Investigation". The form includes the following fields: "Case", "Coroner/Deputy", "County", "Date of Call" (with a date picker icon), "Time of Call" (with a time picker icon), "Person Calling", "Police Agency", "Time of Arrival" (with a time picker icon), and "Suspected Cause". Each field has a corresponding text input box.

iPhone 11 Pro Max — 13.0

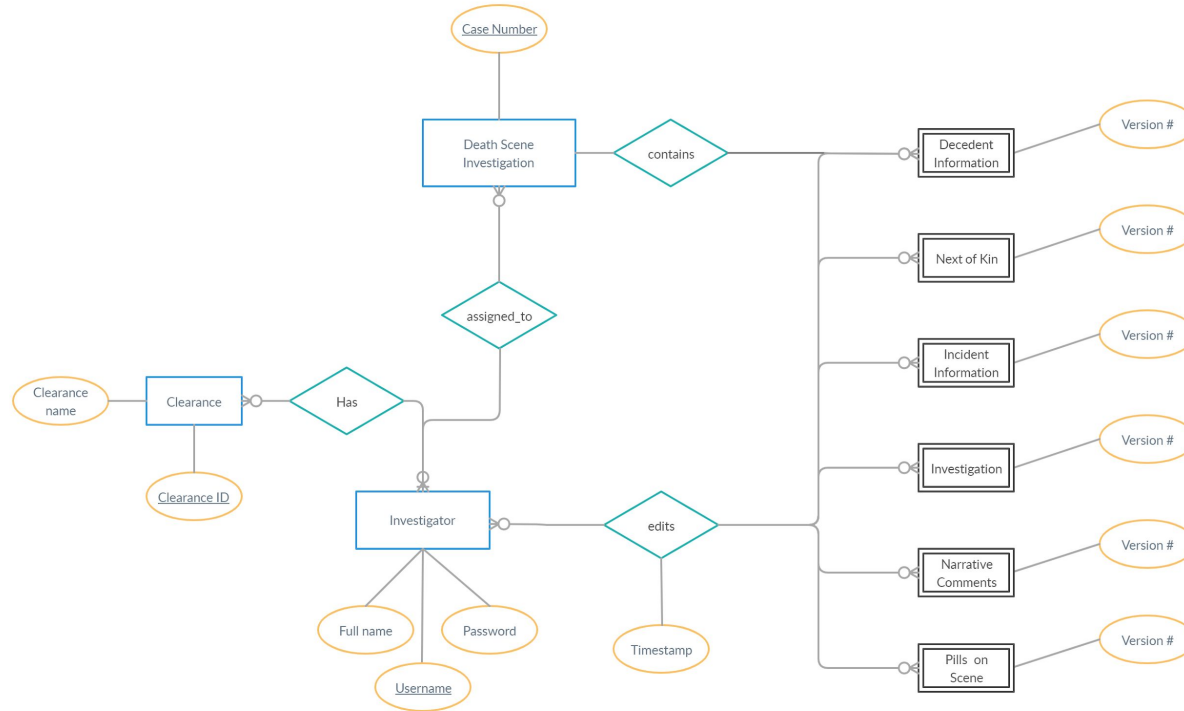
The screen displays a form with a "Back" button at the top left. Below the button is a list of body parts with corresponding radio buttons: Head, Neck, Face, Thorax, Abdomen/Lower Back, Spine, Upper Extremities, Lower Extremities, Unknown, and Additional Wounds. Below the list is a diagram of a human body from the front, back, and side views. At the bottom, there are two buttons: "Save" and "Next".

iPhone 11 Pro Max — 13.0

The screen displays a form titled "Narrative/Comments". Below the title is a text area with the placeholder text "Write text here". At the bottom, there is a button labeled "Upload".

iPhone 11 Pro Max — 13.0

# Database Design



Entity relationship diagram depicting the major entities and their relationships for our database

# QA Results

1. Follow the Apple App Store review guidelines
2. Non-intuitive interface flow
3. Inefficient front-end to back-end interactions

# Testing

- Consists mostly of unit and integration testing
  - Unit testing for individual components of our iOS application and database
  - Integration testing for testing function interaction between application and database
- Our goal is to automate the testing process as much as we can

```
const actual_output = User.update(input)
// ----- Assert -----
expect(actual_output).toEqual(expected_output)
// internal behavior expectations
expect(Database.select.calledOnceWithExactly('users', {email: input.email})).toBe.true
expect(Database.update.calledOnceWithExactly('users', input)).toBe.true
```



# Metrics

- Estimated story points: **99 story points**
- Actual lines of code as implemented: **5192**
- Complexity of each module: **4** cyclic complexity
- Complexity of the system: **3** weighted methods per class
- Product size: **8** user stories
- Product effort: **100 hours**
  - Evan: 25
  - Eura: 25
  - Matthew: 25
  - Trent: 25
- Defects: **4**

METRIC SYSTEM <sup>1</sup>					
UNIT	ABBREVIATION	EQUIVALENT IN BASE UNIT	APPROXIMATE U.S. EQUIVALENT		
LENGTH					
kilometer	km	1,000 meters	0.62 mile		
hectometer	hm	100 meters	328.08 feet		
dekameter	dam	10 meters	32.81 feet		
meter	m		39.37 inches		
decimeter	dm	0.1 meter	3.94 inches		
centimeter	cm	0.01 meter	0.39 inch		
millimeter	mm	0.001 meter	0.039 inch		
micrometer	µm	0.000001 meter	0.000039 inch		
AREA					
square kilometer	sq km or km <sup>2</sup>	1,000,000 square meters	0.39 square mile		
hectare	ha	10,000 square meters	2.47 acres		
are	a	100 square meters	119.60 square yards		
square centimeter	sq cm or cm <sup>2</sup>	0.0001 square meter	0.16 square inch		
VOLUME					
cubic meter	m <sup>3</sup>		1.31 cubic yards		
cubic decimeter	dm <sup>3</sup>	0.001 cubic meter	61.02 cubic inches		
cubic centimeter	cu cm or cm <sup>3</sup> also cc	0.000001 cubic meter	0.061 cubic inch		
CAPACITY					
			<i>cubic</i>	<i>dry</i> <i>liquid</i>	
kiloliter	kl	1,000 liters		28.38 bushels      264.17 gallons	
hectoliter	hl	100 liters	1.31 cubic yards	2.84 bushels      26.42 gallons	
dekaliter	dal	10 liters	3.53 cubic feet	1.14 pecks      2.64 gallons	
liter	l		0.35 cubic foot	0.91 quart      1.06 quarts	
cubic decimeter	dm <sup>3</sup>		61.02 cubic inches	0.91 quart      1.06 quarts	
deciliter	dl	0.1 liter	6.10 cubic inches	0.18 pint      0.21 pint	
centiliter	cl	0.01 liter	0.61 cubic inch		0.34 fluid ounce
milliliter	ml	0.001 liter	0.061 cubic inch		0.27 fluid dram
microliter	µl	0.000001 liter	0.000061 cubic inch		0.00027 fluid dram
MASS AND WEIGHT					
metric ton	t	1,000,000 grams	1.10 short tons		
kilogram	kg	1,000 grams	2.20 pounds		
hectogram	hg	100 grams	3.53 ounces		
dekagram	dag	10 grams	0.35 ounce		
gram	g		0.035 ounce		
decigram	dg	0.1 gram	1.54 grains		
centigram	cg	0.01 gram	0.15 grain		
milligram	mg	0.001 gram	0.015 grain		
microgram	µg or mcg	0.000001 gram	0.000015 grain		

<sup>1</sup>For metric equivalents of U.S. units, see Weights and Measures table.

# Summary

- System Overview
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# Questions

