
**Personal Property Manager: Specification Document**

CEN-4010

Batia Segal, Kevin Infante, Vincent Joel Morales, Connor Stearn, Morgan Benavidez, Zac Paul

Professor Lofton Bullard

November 28, 2022

**Table of Contents**

**Section I:** Proposal - Vision Statement - Motivation

There seems to be a need for citizens to keep track of their property in case of natural disaster and crisis. The need is that oftentimes citizens run into issues of property theft and damage and need a way to track that so that they can properly create the detailed reports necessary so that they file a claim to the insurance. This is why The City of Happy Citizens is seeking to provide such a service and our team is willing and capable to provide it.

We want to provide The City of Happy Citizens with a software application that assists citizens in maintaining a proper record of their personal property. This includes information about property condition, age, buy date and unexpected damage that may have occurred in the duration of owning that property.

This information can be used in times of crisis and natural disaster to allow citizens to receive what they need to replace or fix damaged property. For example, the case where a category 5 hurricane makes its way through a neighborhood, leaving houses in shambles and valuable property irreplaceable. In this tragic natural disaster, it will be useful for citizens to be able to show insurance companies what they have lost and have them help replace the items. Oftentimes insurance companies will not replace property that is misplaced, with this software application it becomes possible for them to do so. This is because ownership of said property is proven in citizen's records of their personal property.

The citizen will be able to create a secure property account, along with being able to add, remove, print, search, download, and edit records. The City of Happy Citizens will have the ability to view, but not edit, customer property records. The citizens will also be able to calculate the overall value of their property so that they can get a sense of their net worth and financial

standing. This feature will collect data about the item's current value to keep the numbers accurate.

Overall, the main purpose of this property management system is to help citizens keep track of their property's value, status and condition. This application will hopefully minimize the unheedingly long disputes between insurance companies and their customers.

**Section II:** Division of Tasks

*Front End Developers: Will be responsible for designing the user interface.*

- Kevin Infante
- Vincent Joel Morales
- Batia Segal

*Backend Developers and Database Managers: Will be responsible for setting up system servers and managing the database.*

- Zachary Paul
- Connor Stearn
- Morgan Benavidez

**Section III:** Stakeholder Definitions

*End Users*

- Citizens who can access their own information
- The personal property managers that assist citizens with their needs. They will be able to view customer information but will not have the ability to edit it.

*System Managers*

- The software engineers that are responsible for maintaining and installing the system

*System Owners*

- The property management company, The City of Happy Citizens, that provides citizens with this service

*External Stakeholders*

- Insurance companies that will be given this information in times of natural disaster and crisis

**Section IV:**Statement on the Developmental Model

For the development of this system, our group agreed on agile development methods. Adopting the scrum methods, we will be able to keep an accurate record of updates to our system through a regularly updated backlog, and collaborate with each other through regular weekly meetings to develop the system. We will also have a scrum master act as a facilitator of the scrums, also updating the backlog with “to-do” tasks. The team will engage in “Sprints”, periods of 2-4 weeks in which increments are made to the software, and the progress will be measured against the backlog.

We chose this developmental model because our development team works well in scrum meetings, and the scrum framework is suitable for advancing design and implementation without too much in the way of unnecessary oversight, while also providing essential documentation of the process in the way of the backlog.

**Section V:** Statement on Distributed Model

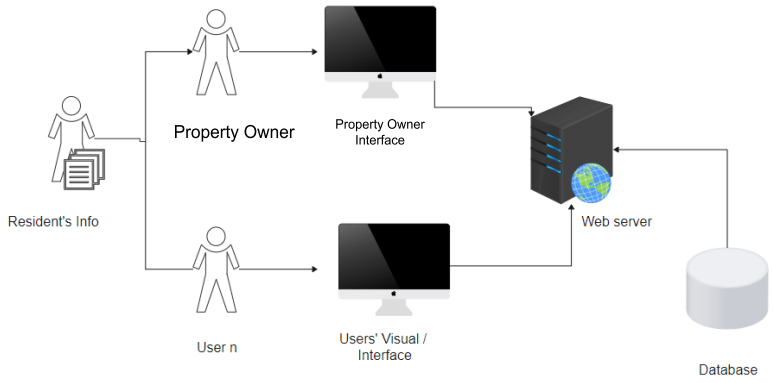
The software system for this application is a small-scale distributed system. There are three main components, being the client, server, and database subsystems. These all operate in conjunction with each other, but on different computers, with each subsystem being responsible for different forms of data. The client is primarily responsible for display of data, obtaining user input, and small scale computation. The server handles authorization, client requests, and communication with the database. The database is responsible for containing all of the data within the system and providing a means of fetching it. This most closely resembles a two-tier client-server architecture. Communication encryption would be provided on the application level via TLS, and database security is kept as the server is the sole accessor. The concept of resource sharing is reflected in the many to one ratio of clients to servers, and can be potentially applied in a scaled system through many connections to a shared resource (e.g. database). Openness is reflected in the adherence to HTTP and REST communication standards, as well as SQL for database operations. Concurrency and scalability come thanks to the frameworks in use, though would be more apparent in a larger scale setup. For the sake of this application, a high degree of concurrency is not necessary, but can scale up with more hardware running the server subsystem. Fault tolerance in storage lies with the database system (in our case MySQL which has many measures in place). Fault tolerance in availability (i.e. server failure) is not provided by default but can be added with redundant server processes.

**Section VI:** Statement on security

Security in this domain means protecting all info and data within the system, including that of customers and stakeholders. It also refers to the system's ability to withstand attacks, and from security also comes reliability and safety. In this software application, the data in question is profile usernames and passwords, as well as property info (including financial data). There is clearly an interest from all parties to keep such information private, which is why security in this system is of great importance and should be made a high priority. Protection will be considered throughout the various stages of development. Data will be stored in such a way that it secures it against attack. For example, passwords will not be stored in plaintext but in sufficiently hashed forms that are resilient even in the case of breach. The database system will be set up in such a way that only systems and individuals who should have access to sensitive information will actually have access.

**Section VII:** Statement on System Architectural Model

While our system is simple it contains everything one would need to properly store all necessary information to show to insurance companies in case of an emergency. The “user admin” or owner of property will upload information about their property onto a server through the web and be able edit, add, and delete different items they own. The insurance company on the other hand will only be able to view these items.



**Section VIII:** User Requirements

1) The software shall provide users with a secure record of their personal property.
    a) **System requirements**
        i) 1.1) Access to property records shall be restricted to authorized users.
        ii) 1.2) The secure record shall consist of property information such as age, condition, buy date, and value.
2) The user shall be able to create a secure property account on the software system.
    a) **System requirements**
        i) 2.1) The user account created shall be stored to be accessed at another time.
        ii) 2.2) The user account will be secured with a verifiable password to allow accounts only to be accessed by the owner of the account.
3) The user shall be able to edit their account to reflect their record of personal property on the system.
    a) **System requirements**
        i) 3.1) Each user's record stored within the system should be able to be modified, allowing the user to make any changes to their property accounts.
        ii) 3.2) I believe there should be a separate page for edits to an entry. This will be activated by clicking on an “Edit” link.
        iii) 3.3) Upon changing the information for a particular entry in a form field, the user should click a submit button that passes this data to the backend, which will then connect to and update the database immediately.

4) The user shall be able to view the current records in their account

    a) **System requirements**

        **i)** 4.1) The system shall display a record of when items were added to the system and what user they are connected to.

        **ii)** 4.2) We will have to take the date/time stamp when an entry is created and store that data in the database.

        **iii)** 4.3) This information will be returned along with the other data on a users page.

5) The system shall allow the user to search their property records

    a) **System requirements**

        **i)** 5.1) The system should allow the user to search and sort their property by date, as well as by price and other attributes.

        **ii)** 5.2) We will create separate indexes in the database for each attribute we want to be able to sort by.

        **iii)** 5.3) The ability to sort by user should be added to both the insurance and government agency pages.

6) The system shall allow the user to print any or all of their property records

    a) **System requirements**

        **i)** 6.1) The system should be able to compile all records connected to a user in the system and allow the user to easily print them for external use.

        **ii)** 6.2) The system will have a function that queries the database for all records pertaining to a user (i.e. SELECT * FROM “database” WHERE user = “blank”) and then stores them in csv format to be printed in a table.

7) The system shall allow users with administrative rights to view all property records for all users
    a) **System requirements**
        i) 7.1) High clearance IT staff shall have administrative rights to view citizens' property records, for the purpose of maintenance and resolving user issues.
        ii) 7.2) This will be done by having separate pages delivered to client by server depending on their clearance level stored in the database.
8) The system shall allow users to grant other users access to their account
    a) **System requirements**
        i) 8.1) The system should allow users to log in through two-factor.authentication, through mechanisms such as phone number and email, as well as requiring authentication checks before allowing users to share their records with others to maintain security.
        ii) 8.2) To handle the two factor authentication, we will seek out an existing API to perform the verification system.
9) The system shall allow users to download a copy of their property records locally
    a) **System requirements**
        i) 9.1) The property records should be easily convertible to formats such as PDF, Word, and Excel for downloading.
        ii) 9.2) The system should allow the user to download and print an unofficial record of their personal property in formats such as word and PDF.

iii) 9.3) The system should allow users to download and print an official and approved document containing their records (PDF), which can be presented to insurance companies.

iv) 9.4) The system should allow the users to download their records to a spreadsheet in Excel format.

10) Users should be able to reliably use the system within 2 hours of learning

a) **System requirements**

i) 10.1) An accessible user manual should be available for users to download in order to learn the ins and outs of the system.

ii) 10.2) The user manual should describe in detail how to effectively add, modify, delete, search, and sort the user's records.

iii) 10.3) The system should have an intuitive user interface that allows the users to use some essential functionalities without having read the manual. For instance, quickly adding property by scanning a barcode.

11) User should be able to view their total property worth

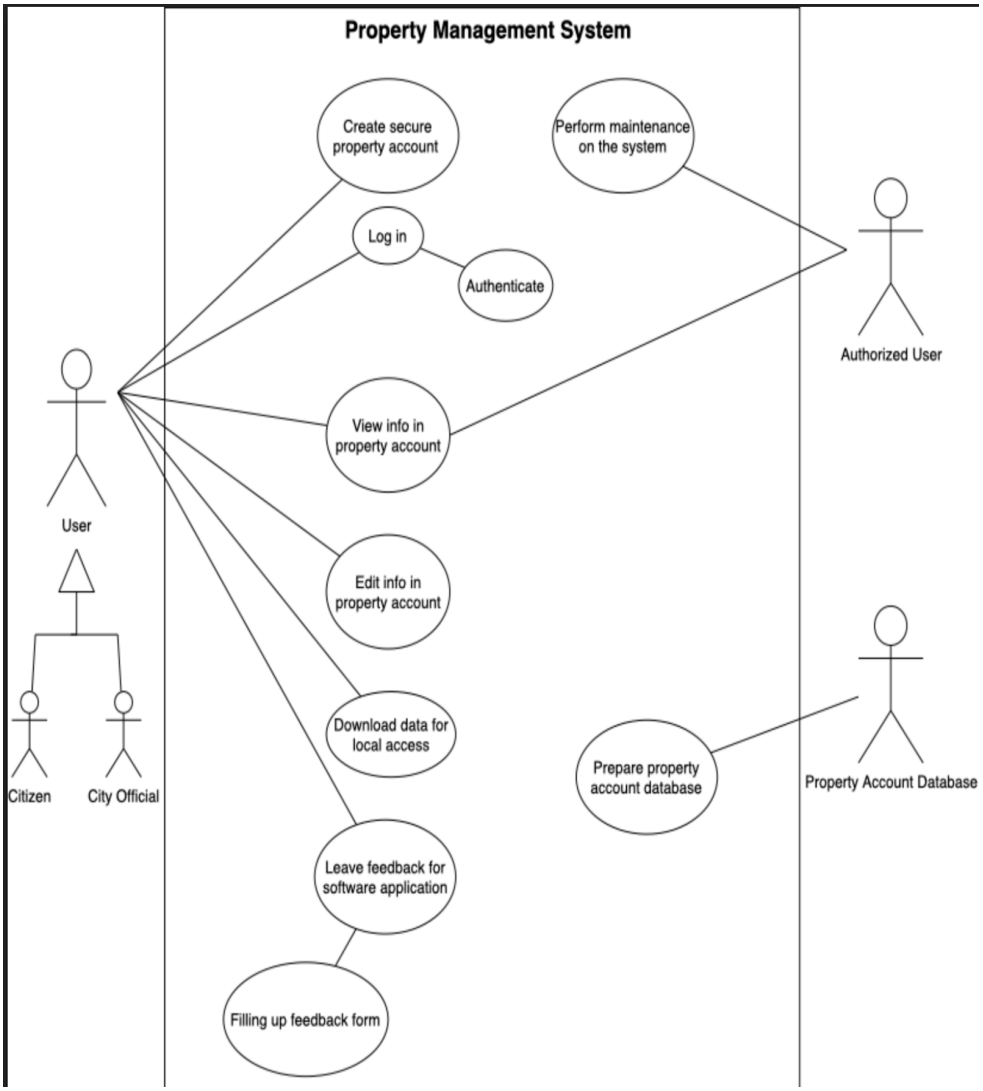
a) **System requirements**

i) 11.1) The system should allow users to add property values

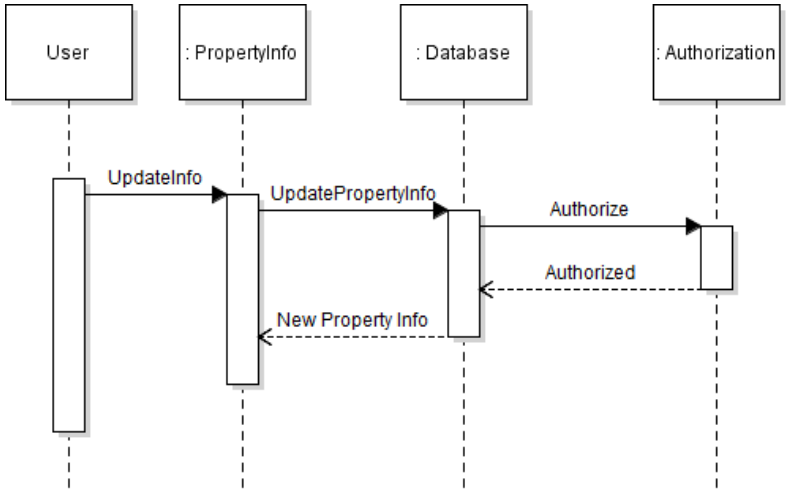
ii) 11.2) The system should calculate the total value of the property, giving the user an overall net worth

**Section IX:** System Diagrams

## Use case diagram



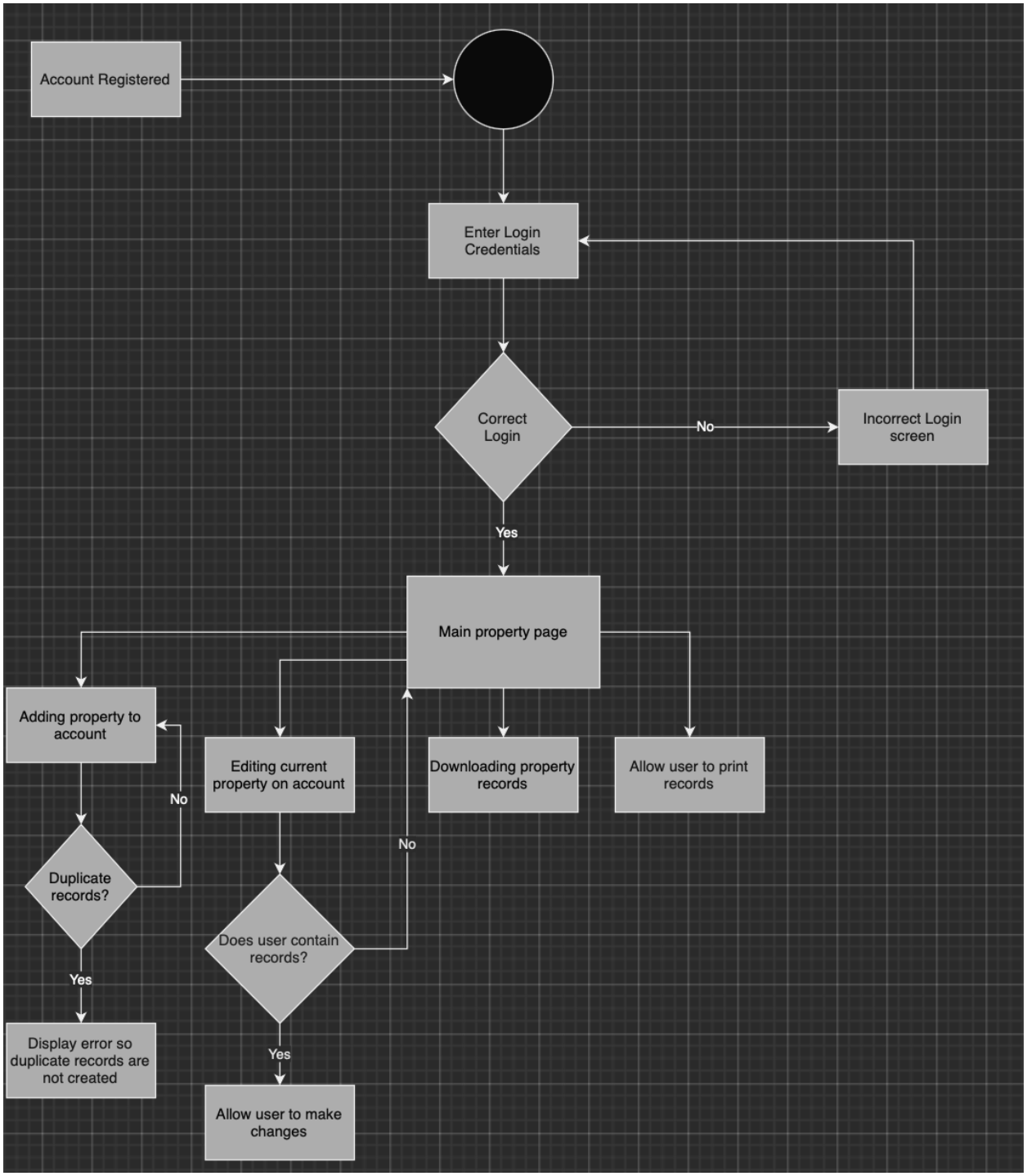

## Sequence Diagram



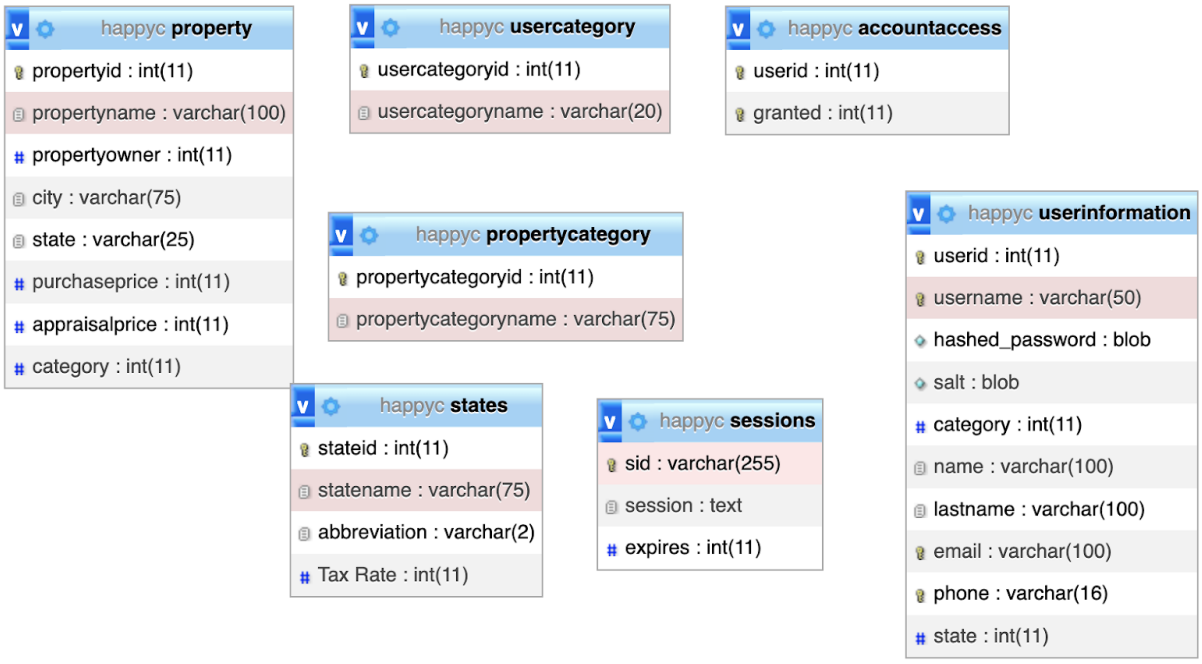

a. CEN_4010SequenceDiagram.drawio

**Activity diagrams**

Activity Diagram.drawio




## Database Diagram


happyc property
propertyid : int(11)
propertyname : varchar(100)
propertyowner : int(11)
city : varchar(75)
state : varchar(25)
purchaseprice : int(11)
appraisalprice : int(11)
category : int(11)
happyc usercategory
usercategoryid : int(11)
usercategoryname : varchar(20)
happyc accountaccess
userid : int(11)
granted : int(11)
happyc propertycategory
propertycategoryid : int(11)
propertycategoryname : varchar(75)
happyc states
stateid : int(11)
statename : varchar(75)
abbreviation : varchar(2)
Tax Rate : int(11)
happyc sessions
sid : varchar(255)
session : text
expires : int(11)
happyc userinformation
userid : int(11)
username : varchar(50)
hashed_password : blob
salt : blob
category : int(11)
name : varchar(100)
lastname : varchar(100)
email : varchar(100)
phone : varchar(16)
state : int(11)

**Glossary**

[Entity: Definition]

- User: Any person who uses the Personal Property Manager Software
    - Citizen: any person who creates a Property Account for the purpose of establishing their property record.
    - City Official: a civil servant who may view property records when given permission, for legal purposes such as settling claims in court.
- Authorized User: a system manager for the Personal Property Manager Software, a person who is responsible for maintaining the system and resolving User issues.
- Personal Property Account: an account made by a user for the purpose of creating, storing, viewing, and modifying a record of their personal property.
- Property Account Database: the database which contains the property accounts of all the users of the Personal Property Manager. System managers are responsible for maintaining this database.

- Additional definitions:
    - Personal Property Manager: The software system. This software allows users to create and manage their property records through their personal property accounts.
    - Net worth: The sum of the values of all the user's properties and assets minus their debts.
    - System manager: A person responsible for maintaining the system and its database, as well as ensuring the proper functioning of all of the system's services.

- stakeholder:  end-users, managers, and external stakeholders such as regulators (e.g. a register of deeds, or the IRS)

**Poster**

FLORIDA ATLANTIC UNIVERSITY
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Principles of Software Engineering (CEN4010)
Instructor: Dr. Lofton A. Bullard
Theme: Happy Citizens Property Management System
Fall 2022 Term Projects

# Application Name

**Kevin Infante, Vincent Joel Morales, Batia Segal, Zachary Paul, Connor Stearn, Morgan Benavidez**
Department of Electrical Engineering and Computer Science

## Motivation/Purpose

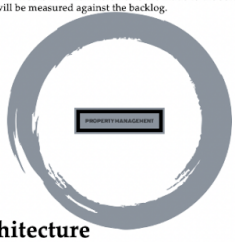
There seems to be a need for citizens to keep track of their property in case of natural disaster and crisis. The need is that oftentimes citizens run into issues of property theft and damage and need a way to track that so that they can properly create the detailed reports necessary so that they file a claim to the insurance. Therefore, The City of Happy Citizens is seeking to provide such a service and our team is willing and capable to provide it.

## Functionality

There are 3 types of users: Citizen, Government, and Super. A citizen can log in to their account, and add, edit and delete properties from their own accounts. They can also grant a user access to their account. A government official can log in to their account and view all properties in the system. A super user can log in to their account, and add, edit and delete properties from all accounts.

## Development Approach

For the development of this system, our group agreed on agile development methods. Adopting the scrum methods, we will be able to keep an accurate record of updates to our system through a regularly updated backlog and collaborate with each other through regular weekly meetings to develop the system. We will also have a scrum master act as a facilitator of the scrums, also updating the backlog with "to-do" tasks. The team will engage in "Sprints", periods of 2-4 weeks in which increments are made to the software, and the progress will be measured against the backlog.




## Architecture

While our system is simple it contains everything one would need to properly store all necessary information to show to insurance companies in case of an emergency. The "user admin" or owner of property will upload information about their property onto a server through the web and be able edit, add, and delete different items they own. The insurance company on the other hand will only be able to view these items.

## Security

Security in this domain means protecting all info and data within the system, including that of customers and stakeholders. It also refers to the system's ability to withstand attacks, and from security also comes reliability and safety. In this software application, the data in question is profile usernames and passwords, as well as property info (including financial data). There is clearly an interest from all parties to keep such information private, which is why security in this system is of great importance and should be made a high priority. Protection will be considered throughout the various stages of development. Data will be stored in such a way that it secures it against attack. For example, passwords will not be stored in plaintext but in sufficiently hashed forms that are resilient even in the case of breach. The database system will be set up in such a way that only systems and individuals who should have access to sensitive information will have access.

**User guide**

*For all users*

Step 1: Register for an account
Step 2: Log in to your account

*If you are a citizen and want to add a property*

Step 1: Fill out the form to add a property
Step 2: Press “add property”

*If you are a citizen and want to view, edit, or delete your own properties*

Step 1: Press “show properties”
Step 2: Press delete to delete a property
Step 3: Write into the textbox a new property name and press update to update the property name

*If you are a citizen and want to grant another user access to your account*

Step 1: Fill in text box with the user id that you would like to grant access to
Step 2: Press “grant access”

*If you are a citizen, government official or super user and want to print/save the list of properties*

Step 1: Press print or download pdf
Step 2: If the pdf option is clicked, the pdf will save to your downloads folder on your computer. If the print option is clicked, print options will pop up and printing becomes possible.

*If you are a government official and want to view properties*

Step 1: Press “show properties”

*If you are a super user and want to view properties, edit property names and delete properties*

Step 1: Press “show properties”
Step 2: Press delete to delete a property
Step 3: Write into the textbox a new property name and press update to update the property name

## Resumes

Fort Lauderdale, FL, 33312
(786)-873-7431
**BATIA SEGAL**
bsegal2021@fau.edu
www.linkedin.com/in/batia-segal-5bab141a4
www.github.com/bsegal2

**EDUCATION**

**Boca Raton, FL** **Florida Atlantic University** **August 2023**

- **Major:** Computer Science, B.S. (GPA: 3.725)
- **Programming Coursework:** Programming in Python, Programming in C, Data Structures & Algorithm Analysis, Introduction to Internet Computing, Full Stack Web Development, Object Oriented Design & Programming, Principles of Software Engineering, Database Structures, Mobile App Projects, Foundations of Computing
- **Other Relevant Coursework:** Linear Algebra, Calculus I&II, Physics 1

**SCHOLASTIC ACHIEVEMENTS**

- Made the Dean's List in the 2019-2020 academic year, the 2020-2021 and the 2021-2022 academic year
- Earned the Python Programming Language badge on LinkedIn and scored in the 85th percentile

**INDUSTRY EXPERIENCE**

**Amazon Internship**

- Traveled to the Amazon headquarters in Seattle for a 12-week internship as a Software Development Engineer
- Worked with the Amazon Fresh Dynamic Crossdock Team

**COLLABORATIVE AND LEADERSHIP PROJECTS**

**Amazon Internship: Working on the Amazon Fresh Dynamic Crossdock Team**

- Assigned a project that provides the team with a tool to help enhance the existing Dynamic Crossdock technology
- Participated in code and design reviews for my fellow team members
- Worked with my mentor, manager and team members to come up with the algorithm, logic, design, and implementation of the project using several AWS technologies such as Brazil-CLI, DyanmoDB, ECS, Lambda and Coral

**SOFTWARE PROJECTS**

**Movie Application**

- Developed a full stack application in which users can browse movies, view reviews, and ratings
- Used ReactJS for the front end, NodeJS and Express for the backend, and MongoDB for the database
- Used the IMDB API to populate the application with data that the user can view and search for
- Utilized: React, NodeJS, Express, MongoDB

**Student Server**

- Developed a full stack application that allows users to store student records
- Allowed users to store information such as GPA, student names, and enrollment status
- Used React for the front-end, NodeJS and Express for the backend, and MongoDB for the data-base
- Utilized: React, NodeJS, Express, MongoDB

**Tic-Tac-Toe**

- A JavaScript, HTML, and CSS web application that allows users to play Tic-Tac-Toe
- The game involves the user and the computer and the computer chooses a space using the min-max algorithm
- Upon the ending of each game the winning spaces are highlighted and the current score is stored using a session storage
- Utilized: JavaScript, CSS, HTML

**Virtual Monopoly**

- Developed a program using Python allowing users to play Monopoly together without needing the real board game
- Integrated a Draw library created by one of my professors in order to effortlessly create visuals and apply effects
- Incorporated ways to involve user input and record player scores by recording where the user presses in the keyboard
- Utilized: Python

**SKILLS**

**Software:** AWS Cloud Computing Technologies, Python, C, Java, Java Script, HTML, CSS, React, Angular, MongoDB, Express, NodeJS

**Zachary Paul**
(845) 709-3786 * zhpaul1997@gmail.com

Goal-oriented, analytical, recent graduate of Florida Institute of Technology with a bachelor's degree in Astronomy & Astrophysics seeking a new opportunity with an established company that offers room to grow. Currently enrolled in online classes to complete my second B.S. in Computer Science in May of 2023

## EDUCATION

**FLORIDA INSTITUTE OF TECHNOLOGY**
**Melbourne, FL**
*B.S. Astronomy and Astrophysics (August 2015 - May 2019)*
Award: NGC President's Award for In-Flight Radiation Detector

**FLORIDA ATLANTIC UNIVERSITY**
**Boca Raton, FL**
*B.S. Computer Science (August 2021 – est May 2023 )*

## WORK EXPERIENCE

**LOCKHEED MARTIN, Ocala, FL**
*Electronics Associate Sr (JAVELIN, HELLFIRE II), March 2020 – June 2022*
- Circuit board assembly
  - Performing soldering, bonding, masking, demasking on circuit boards of the Javelin team in Lockheed Martin. Met company standards by following the MPP of each assembly step.

**TRC, Cary, NC**
*Survey Technician, September 2022 – Present*
- Development survey databases, boundary, topographic surveys, and construction staking, for engineering design projects and commercial surveying clients

**FLORIDA INSTITUTE OF TECHNOLOGY, Melbourne, FL**
*Undergraduate Research Assistant, May 2018 - May 2019*
- Conducted the assembly and research of a prototype radiation detector for use in high-altitude, sub-orbital and space flight. The research conducted resulted in the awards listed above. (Constructed and partially tested in a clean room)
  - Quality Control Tests:
    - Electrical shortage tests with increasing voltage
    - Gas leakage testing though internal detector pressure monitoring
    - Reduction of outside noise through shielding
    - Gain Uniformity and Effective Gain of electrons
      - Use of a radioactive material to make sure each foil in the system multiples the number of electrons at the same relative rate
      - Different placements on the detector to confirm that it can detect electron concentrations in specific areas as to know where more radiation gets through

**FLORIDA INSTITUTE OF TECHNOLOGY, Melbourne, FL**
*Practical Laboratory Experience, August 2015 - May 2019*
- Courses Included:
  - Senior Physics Lab
    - Conducted experiments related to various branches of physics, including but not limited to: Millikan, magnetic field mapping, Hall Effect, Muon Half-life determination, Polarization, and Interferometry
  - Astronomy & Astrophysics
    - Conducted experiments in observational astronomy for hands-on learning of how to properly use a telescope and properly look for and observe different astronomical objects in the night sky
    - Use of public astronomical data to create graphical representations in Python, such as: HR diagrams, determination of a mystery star, mapping the redshift in the universe
  - Experimental reports written in standard research paper format
  - Data collection and calculations performed using Excel and Python

## OTHER SKILLS
- Microsoft Office proficiency
- Programming: C, C++, Java, Python
- CAD, AutoCAD, Civil 3D

# Vincent Morales

954-663-0886 | vincentjmor@gmail.com | 2104 S Cypress Bend Apt 307, Pompano Beach, Florida

## Summary

Hardworking College student with over five years experience with customer service and has strived for results in various positions.

## Experience

**Apple | Boca Raton, Florida**
**Sales Specialist | 02/2022 - Present**

- Extended customer service skills and learned to work in a new environment.
- Became well versed in all aspects of product knowledge to be able to present efficiently to customers.
- Gained experience in being able to present different options to customers and gained confidence in positioning best recommendations.
- Collaborated with other team members to gain knowledge on best practices for workflow and shared personal best practices to improve team.

**Publix Super Markets | Coral Springs, Florida**
**Deli Clerk | 07/2017 - 02/2022**

- Worked as friendly and helpful clerk, renowned for fast and excellent service.
- Communicated effectively with deli counter customers to answer questions and make recommendations.
- Responded effectively to customer questions and inquiries and provided information regarding products.
- Collaborated with other staff within Deli team to provide efficient service for customers.

**Publix Super Markets | Coral Springs, Florida**
**Front Service Clerk | 01/2016 - 07/2017**

- Provided excellent customer service.
- Addressed and welcomed large volumes of guests per day, improving overall customer service and engagement.
- Delivered top quality customer service in a professional manner while managing multiple tasks.
- Delivered key administrative support to coworkers, taking on additional tasks during peak times.

## Education

**Florida Atlantic University | Boca Raton, Florida**
**Bachelors Degree in Computer Science**

- Currently studying at Florida Atlantic University and striving for Bachelors Degree in Computer Science.

**Valencia College | Orlando, Florida**
**Associate of Science | 05/2020**

- Graduated with Associates degree from Valencia College before transferring to Florida Atlantic University.
- Made Deans list for multiple consecutive semesters before graduating.

**University of Central Florida | Orlando, Florida**
**Bachelors Degree in Computer Engineering**

- Worked on Computer Engineering degree from July 2017- May 2019.

## Skills

Customer service, Communication skills, Computer literacy, Troubleshooting, Experience with computer hardware

## Languages

Proficient in English and Spanish

# Morgan Benavidez

Boca Raton, FL
(312) 989-5998
morganbenavidez@hotmail.com
Github: https://github.com/morganbenavidez
LinkedIn: https://www.linkedin.com/in/morgan-benavidez-954664a6/
Lab Website: https://mpcrlab.com

## Education / Training

**FLORIDA ATLANTIC UNIVERSITY**
**BACHELOR OF SCIENCE IN COMPUTER SCIENCE | MAY 2023 | BOCA RATON, FL | 3.5 GPA**

**WILBUR WRIGHT COLLEGE**
**ASSOCIATE OF SCIENCE IN COMPUTER SCIENCE | CHICAGO, IL | MAY 2019 | 3.750 GPA**

**WEB DEVELOPMENT CERTIFICATE**

## Experience

**ARTIFICIAL INTELLIGENCE RESEARCH ASSISTANT**
**MACHINE PERCEPTION AND COGNITIVE ROBOTICS LAB**
**AUG 2021 – PRESENT**

- Research and presentation on Deep Reinforcement Learning at the University of Miami.
- Hosted a Python bootcamp for Machine Learning.
- Demonstrated Sophia, the humanoid robot developed by Hanson Robotics, for the public.
- Unity and Unreal Engine projects.

**SOFTWARE ENGINEER INTERNSHIP | JENOPTIK | MAY 2022 – AUG 2022**

- Updated existing codebase and created new projects.
- Migrated projects that were coded in Python to C#.
- Interfaced Lenses to run experiments.
- Technologies used: C#, Python, Batch Scripts, Visual Studio Code, HTML, cameras and lenses.

**FULL-STACK DEVELOPER INTERNSHIP | ADS-UP MARKETING | NOV 2021 – FEB 2022**

- Developed an internal web-based software to optimize workflow.
- Created internal database.
- Technologies used: HTML, CSS, JavaScript, PHP, MySQL, CSV files

**LOGISTICS COORDINATOR AND SOFTWARE DEVELOPER | UNITED STATES OF FREIGHT | JULY 2020 – NOV 2021**

- Developed internal software, secured freight contracts, and coordinated routes.
- Technologies used: DAT, Veritread, Python, Fr8star, Microsoft Suite.

## Coursework

- Logic Design
- Microprocessors
- Discrete Structures
- Internet Computing
- Calculus I, II, and III
- Applied Cryptography
- Web Development I and II
- Database Structures
- Data Structures and Algorithms
- Design and Analysis of Algorithms
- Software Engineering
- Artificial Intelligence

## Proficiencies

- C, C#, C++
- Python, Java
- HTML, CSS, JavaScript
- PHP, SQL
- React, Node.js, Express
- Software Design
- Project Management
- Excel, Word, PowerPoint
- PyTorch, Pandas, Numpy, Scipy, Sympy
- Encryption Algorithms (3DES, AES, RSA, ElGamal)
- Algorithm Design

## Projects

- Emergency Radio Response System
  - Utilized natural language processing and radios to receive and transmit automated response messages.
  - Received a certificate and honorable mention at South Florida Tech Hub Hackathon.
- Cryptography Web App
  - Encrypts messages using multiple algorithms, generates large primes and test primality.
- Web-scraping Tool
  - Scrapes useful data from websites and classifies the industry that the website falls under.
- Property management Web App.
  - Users can create an account, login and create, view, edit and delete properties.

## Memberships

- Society of Hispanic Professional Engineers (SHPE)
- Phi Theta Kappa International Honors Student
- Google Developer Student Club
- Data Science and Machine Learning Club
- Scuba Diving Club
- President of the Inter-Club Council
- President and Founder of the Science Club

**Kevin Infante**

West Palm Beach | kinfante2019@fau.edu | (561) 515-9276

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## EDUCATION

Florida Atlantic University — Boca Raton, Fl

Bachelor of Science in Computer Science — December 2023

## RELEVANT COURSEWORK

Introduction to Programming, Introduction to Internet Computing, Foundations of Computer Science, Data Structures, Logic Design, Introduction to Microprocessor Systems, Design and Analysis of Algorithms, Introduction to Artificial Intelligence, Database Structures

## TECHNICAL SKILLS

Languages: C/C++, Java, JavaScript, Assembly language, SQL

Web Development: jQuery, HTML5, CSS3

Operating Systems: Microsoft Windows

Hardware: MSP430 Microcontroller

Software: Microsoft Office: certifications in PowerPoint, Excel, and Word 2013. Autodesk Certified User: Inventor.

## ACADEMIC PROJECTS

**Web app development** (*Introduction to Internet Computing, Spring 2022*):
Programmed an interactive Tic-Tac-Toe game on a webpage using HTML, CSS, JavaScript, jQuery, and Bootstrap.

**Programmed double 7-segment display** (*Intro to Microprocessor Systems, Summer 2022*)
Using the MSP430 microcontroller and the C language, I programmed a double 7-segment display to count from 00 to 99, as well as count down from 99 to 00, and adjust the speed using switches.

## WORK EXPERIENCE:

Publix, Greenacres, FL — November 2020 – Present
*Deli Associate*

- Customer service
- Communicating and cooperating with a team
- Conflict resolution
- Time management – managing being a full-time student while also having a part-time job

## LANGUAGES

Fluent in written and spoken English and Spanish.

## Connor Stearn

(561) 449-3405 | cstearn2018@fau.edu | Boca Raton, FL

## Education

Florida Atlantic University | Boca Raton, FL

Bachelors in Computer Science | 08/23

- Pursuing a bachelor's degree in computer science with a minor in artificial intelligence at Florida Atlantic University

## Coursework

Object-Oriented Design & Programming, Intro to Artificial Intelligence, Intro to Deep Learning, Theory of Computation, Intro to Programming in C, Foundations of Computer Science, Introduction to Logic Design, Data Structure and Algorithms Analysis, Intro to Database Structures, Intro to Internet Computing, Design and Analysis of Algorithms, Computer Operating Systems, Intro to Microprocessor Systems

## Projects

Multi-party computation | Engineering Design | Fall 2022

- Implementing encrypted system utilizing multi-party computation to securely manage and process auctions

Microprocessors | Intro to Microprocessor Systems | Summer 2022

- Implemented various microprocessor programs that interfaced between hardware and software

Intro to Logic Design | Spring 2022

- Designed various circuits like ALUs and constituent parts utilizing NAND gates

Web development | Introduction to Internet Computing | Fall 2021

- Designed and implemented various web applications using HTML, CSS, JS, and frameworks such as Bootstrap and jQuery

## Skills

Languages: Proficient in C, C++, Python, C#, Java

Technologies: Skilled with Microsoft Windows, proficient with Linux

Software: Proficient with Microsoft Office software, Visual Studio, Visual Studio Code