PEOPLE TRACKING SYSTEM

A Project created by Sterling Michel

Project Description

- **Overview**
- The **People Tracking System** is a unique online contacting system that **enable a person to store** and **plot their contacts in a map**. It allows the user the opportunity to search, share contact and understand where in the world are their friends and family located.

Cool Features

- Contact Search
  - User will have the ability to perform search.
- Contact Map Display
  - User Will see their contact plotted on the map.
- Contact Sharing
  - User will have ability to share the information as a contact file.
- Contact Rating
  - User will have the chance to rate their contact flag it as family, business or friend.

Design Challenges

- Integrating with Google OAuth
- Integrating with Google Map limitation
- Using plugin to help generate contact information
- Choosing proper REST API backend programming language
- Integrating with Google Gmail API

TECHNOLOGY

PROJECT MANAGEMENT	FRONTEND	BACKEND
GITHUB	Html/css	Nodejs
JIRA	Jquery	MeteorJs
VS Code	Jquery-ui	mongodb
	Javascript	

TECHNOLOGY - UTILITIES

HTML/CSS/Javascript

Advantage
- Lightweight
- Easy to edit
- Improved semantics
- Compatibility Across Devices
- Better User Experience
- Faster Page Speed

Disadvantage
- Browser Compatibility
- Lack of Security
- Performance Impact
- Overriding Styles
- Maintenance Challenges.
- Limited Layout Control.

Jquery

Advantage
- Cross-Browser Compatibility
- DOM Manipulation
- Ease of use
- Simplified Syntax

Disadvantage
- Abstraction Layer
- ES6+ Features
- Can hinder your understanding

Jquery-UI

Advantage
- Integration
- Maintenance friendly
- Theme mechanism
- Browser support
- Documentation
- Plugins
- Flexible styling and themes

Disadvantage
- Can be a bit confusing
- Lot of the DOM CSS manipulation

Github

Advantage
- Easy to use and learn
- Impressive web client
- End-to-End secure over ssh or https
- opensource and or pay account
- Simple CLI

Disadvantage
- Require some advance knowledge
- Pay account is higher than competitor

Jira

Advantage
- Multi users with collaboration, level access and information sharing
- Easy to document project and coordinate tasks
- Lots of reporting features with real-time communication
- Customizable and has plugin integration

Disadvantage
- Cost a bit high to purchase
- To many functions, could get lost

VS Code

Advantage
- Versatility to use with such as editing and viewing markdown files
- Speed with lightweight editor that starts as a basic text editor, making it faster and more responsive
- Cost-effective for freelance developers and smaller teams
- Easy Plugin Extension with including IntelliSense, debugging, Git integration, and a highly customizable interface
- Development operations with development operations like debugging, task running, and version control.

Python Flask With Async

Advantage
- Non-blocking I/O
- Fast Execution
- Scalability
- Large Ecosystem with active Community
- Caching
- Cross-Platform
- Fast Development

Disadvantage
- Not Ideal for CPU-Intensive Tasks
- Unstable API
- Security Risks
- Asynchronous Programming Model

Swagger Framework

Advantage
- Real-time applications
- Extensive documentation
- Integrates with front-end frameworks
- Supportive community
- Easy to learn

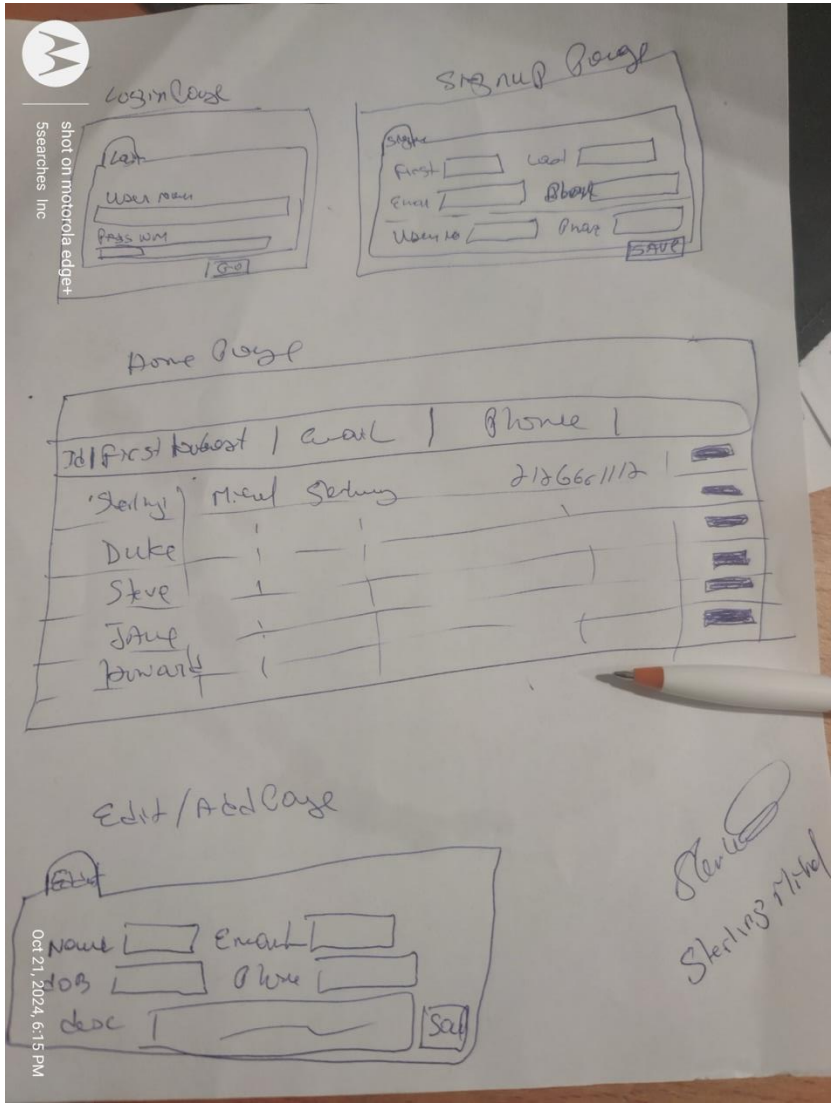
Disadvantage
- Pre-built packages
- Mobile web-apps

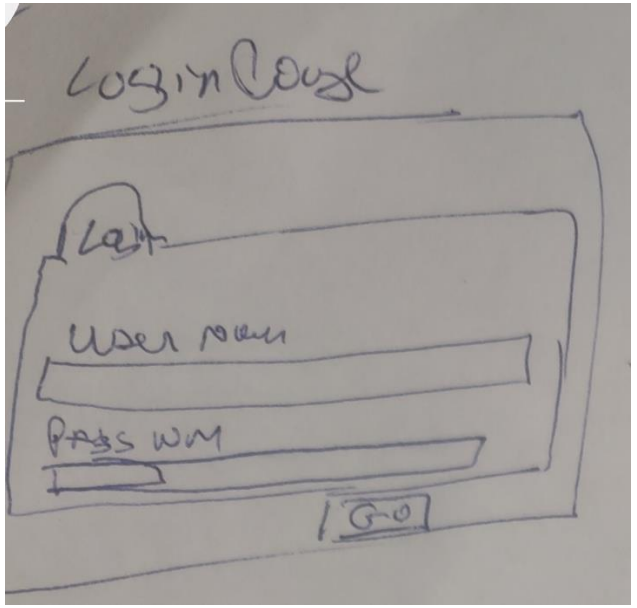
MongDB

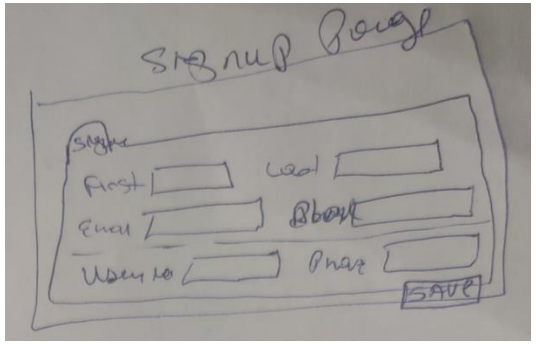
Advantage
- Cloud-based
- Flexibility
- Speed
- Cost-effective
- Scalability

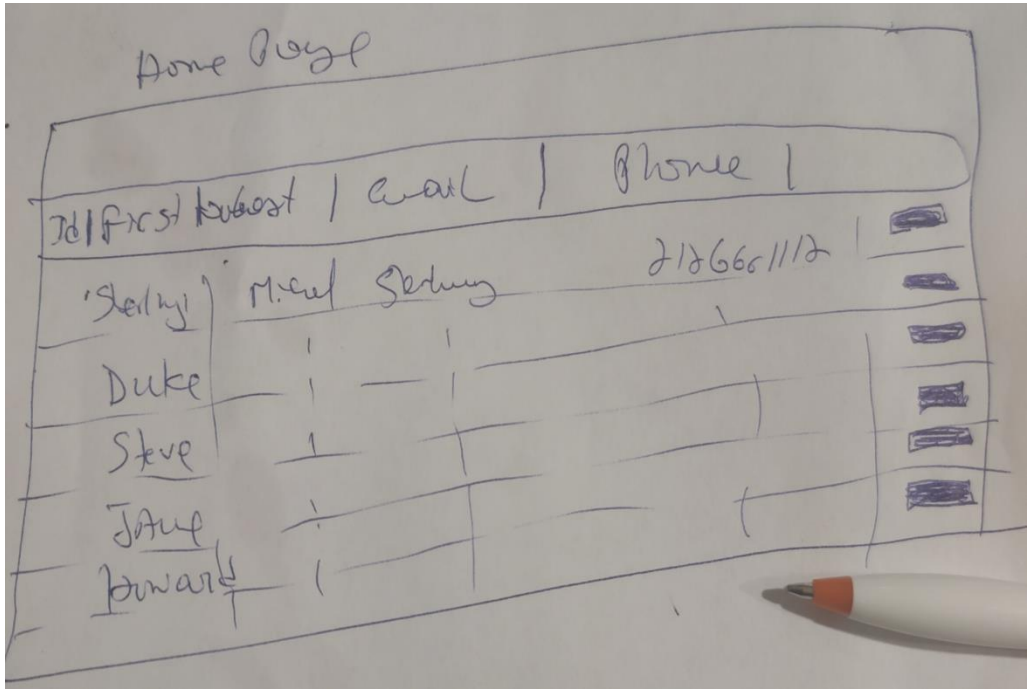
Disadvantage
- Data redundancy
- Memory usage
- Limited document size
- No transactions
- Not recommended for relational data

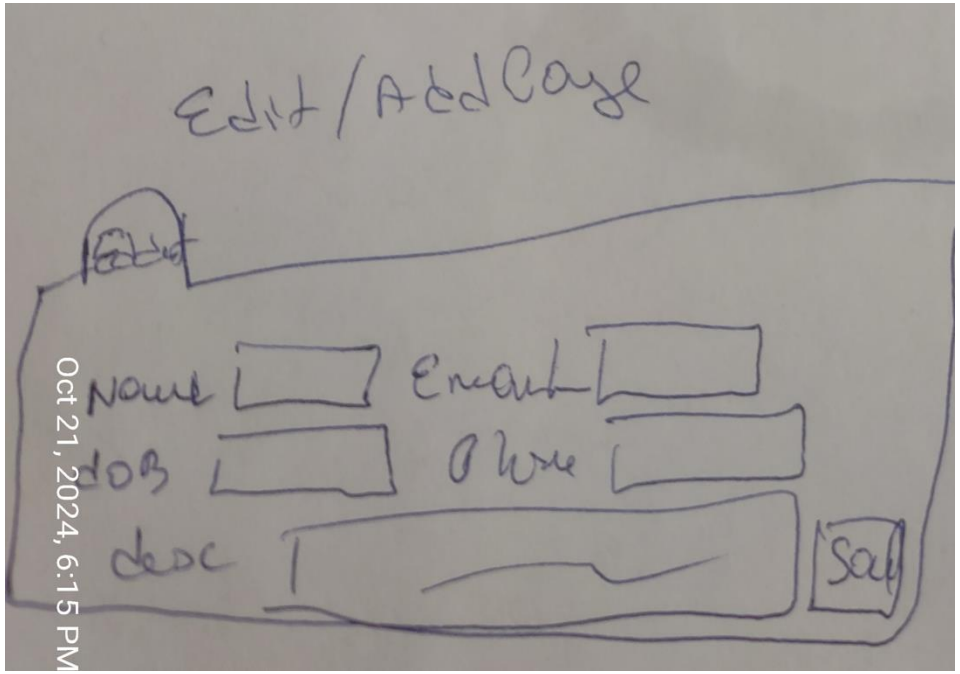
TECHNOLOGY - DESIGN











TECHNOLOGY – UI DESIGN

Testing

- Testing framework (Nodejs), using Mocha For frontend, (Python) using PyTestSuite for backend
- Testing create into database
- Testing delete into database
- Testing Plotting location into UI webpage
- Testing rest api endpoint

DOCUMENTATION

- Documentation created using Swagger API and manual entry
- Important code sections given in-line comments to describe functionality

PROJECT PRESENTATION