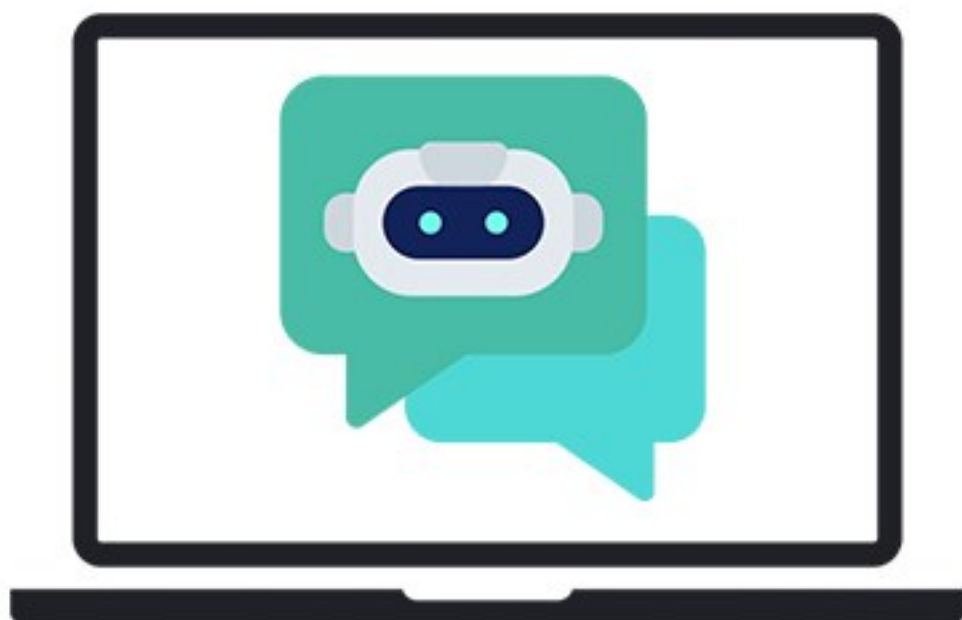# SYRENE

USER MANUAL

Version 1.0 | 11 January 2023

SYRENE: CHATBOT ASSISTING MENTAL HEALTH PROFESSIONALS IN DEALING WITH PATIENTS/CLIENTS USING MACHINE LEARNING

An Undergraduate Thesis

Presented to the Faculty of the

College of Information and Communications Technology

West Visayas State University

La Paz, Iloilo City

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Computer Science

by

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GETTING STARTED

Introduction
Welcome to Syrene! You are about to experience in having a conversation with the chatbot by text communication. Syrene is designed to collect data from users and give tips and advices relating to mental health topics. This User Manual (UM) contains all the detailed description of all the Syrene's features for the users to make full use of the system. We are sure you will find the system easy to use. Let's get started.

System Requirements
Before using the web application, make sure your device meets the following requirements:
- Windows 7 or higher version
- Node.js version 18.16.0
- Python 3.11.3
- Visual Studio Code
- 32MB RAM (32-bit)/(64-bit)
- 500KB disk space
- Pentium 1 GHz or faster 32-bit (x86) or 64-bit (x64)
- DirectX 9 graphics processor with WDDM 1.0 or higher driver

Installation
Before running the web application, you must install the following files:
This repo currently contains the starter files.

1st step: Clone repo and create virtual environment

```
$ git clone https://github.com/XyphrusCaguan/Thesis-Chatbot.git
$ cd Thesis-Chatbot/src/server
$ python3 –m venv venv
$ . venv/Scripts/activate
```

2nd step: Install dependencies

```
$ (venv) pip install –r requirements.txt
```

3rd step: Install nltk package

```
$ (venv) python
>>> import nltk
>>> nltk.download('punkt')
```

4th step: Run

```
$ (venv) python train.py
```

5th step: This will dump data.pth file, and then run the following command to test it in the console.

```
$ (venv) python chat.py
```

DEPLOYMENT OF BACKEND:
#Server

```
$ cd Thesis-Chatbot/src/server
$ .venv/Scripts/activate
$ (venv) python app.py
```

INSTALLATION OF DEPENDENCIES IN FRONTEND:
#Admin

```
$ cd Thesis-Chatbot/src/admin
$ npm install
```

#Client

```
$ cd Thesis-Chatbot/src/client
$ npm install
```

DEPLOYMENT OF FRONTEND:
#Admin

```
$ cd Thesis-Chatbot/src/admin/src
$ npm start
```
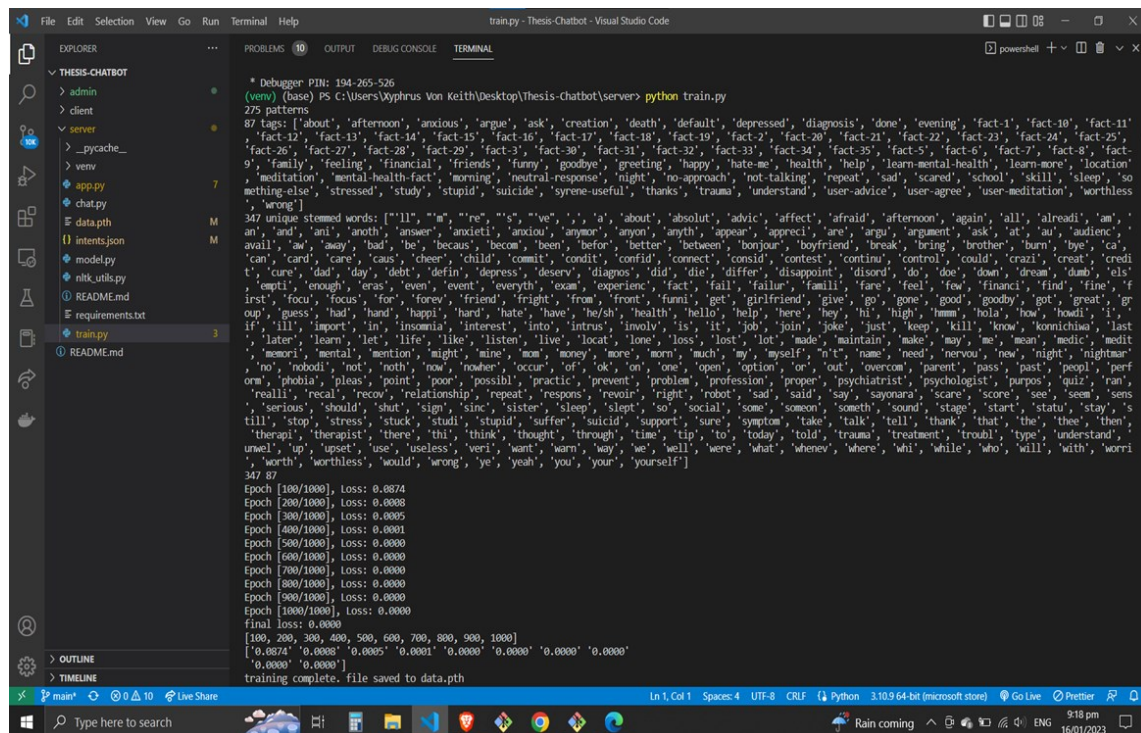
#Client

```
$ cd Thesis-Chatbot/src/client/src
$ npm start
```

How to Train Syrene

To train Syrene, you need to type in the terminal **python train.py**

```
* Debugger PIN: 194-265-526
(venv) (base) PS C:\Users\Xyphrus Von Keith\Desktop\Thesis-Chatbot\server> python train.py
```

Training Results after:

USAGE

Introductory Page (Home Page)
The *"Home page"* provides access to features. This homepage serves as the first initial represen-tation of the web application. It gives a preview of the services available in this web applica-tion.
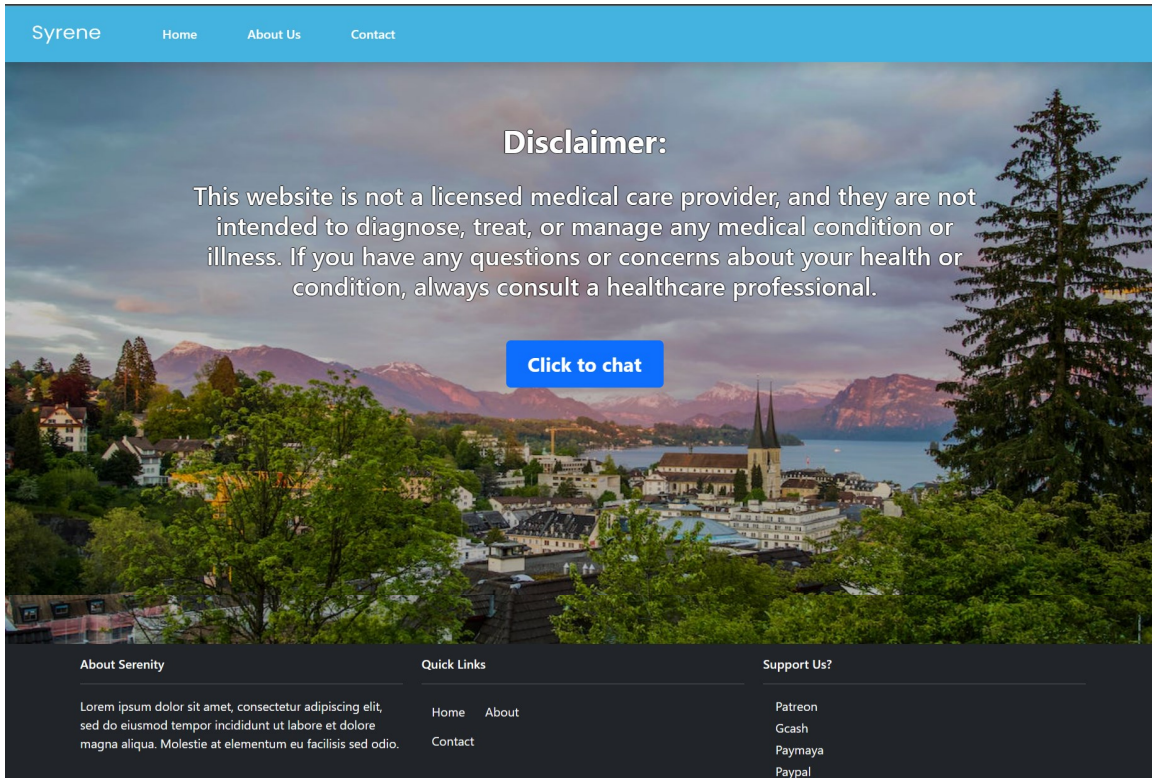
Navigation Bar
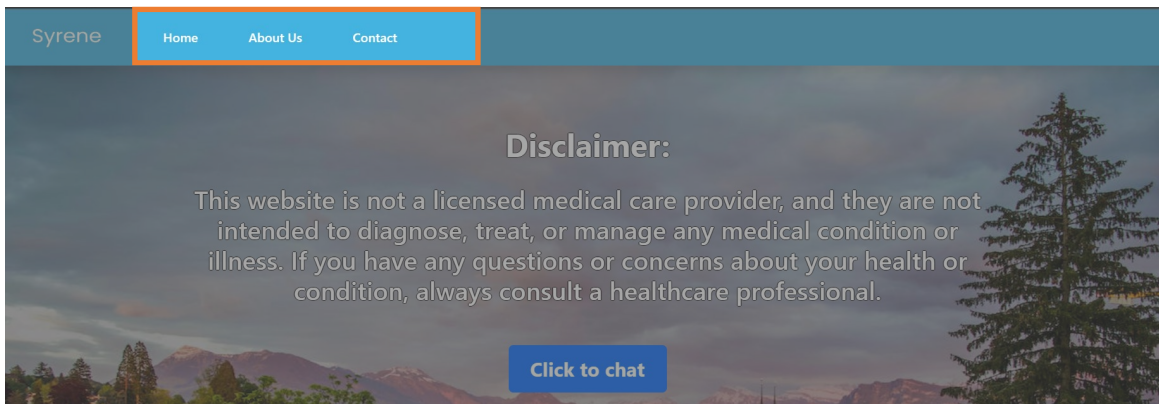
Navigation bar lets you navigates easily or browse through your web application effortlessly with just one click. The navigation bar contains "Home", "About Us", and "Contact".

Click-to-chat Button
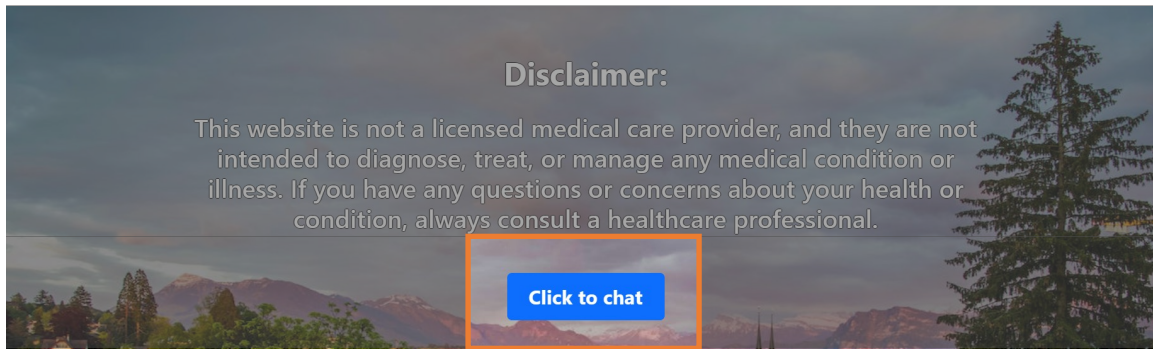
Click-to-chat button is where you will have your conversation with Syrene (chatbot). And once you click to chat, the chat box will appear for you to input your name and start your conversation with Syrene based on the image below.
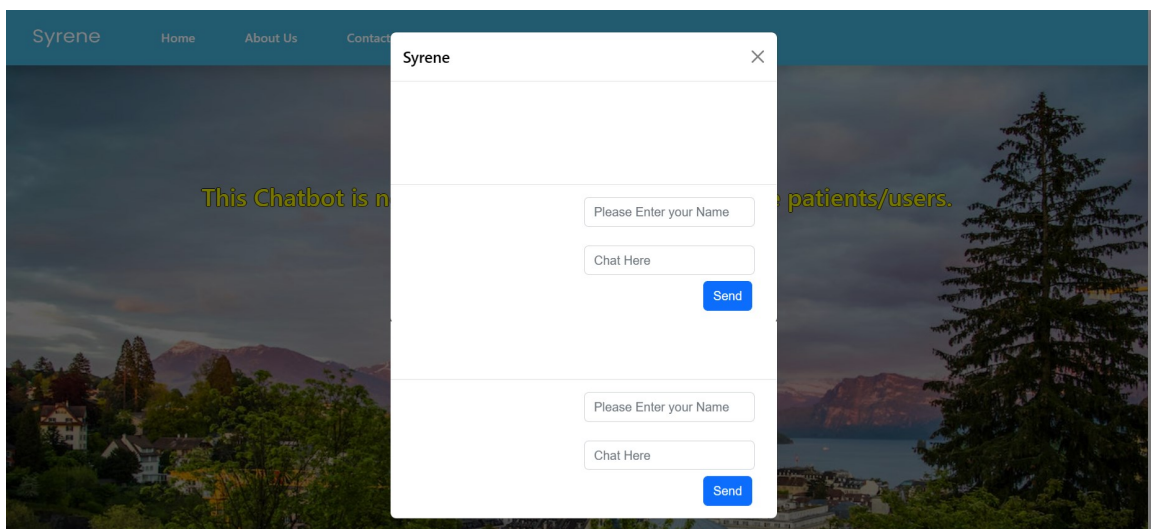
Conversation with Syrene
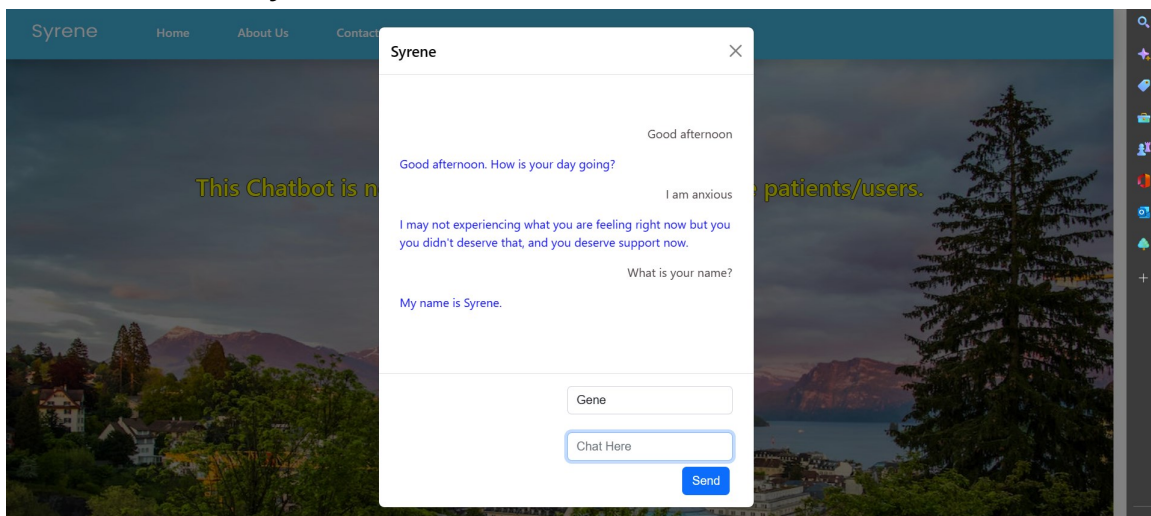
This image shown above illustrates your conversation with Syrene.

About Us Page
The *"About Us page"* is where to inform the users about the company's goal and its operations plus the developers' profile here are being displayed.
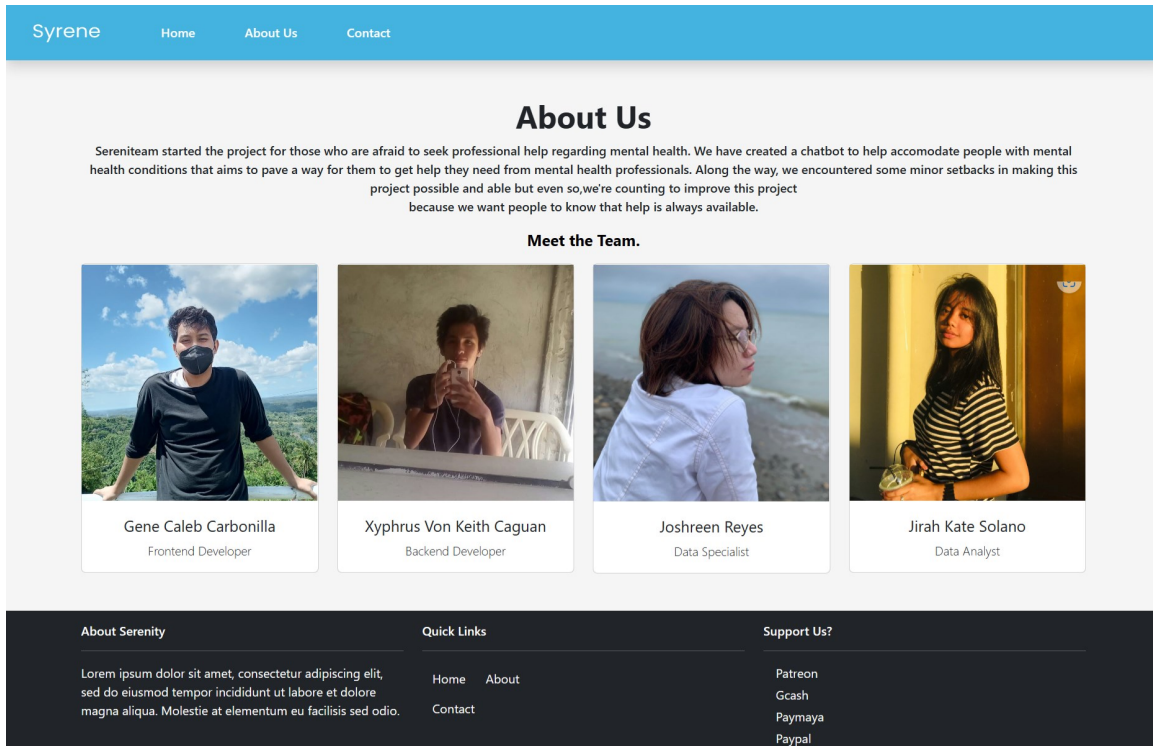
Contact Page
The *"Contact Page"* is where you contact us when you have any concerns regarding with the web application .

TROUBLESHOOTING FOR POSSIBLE FIXING BUGS

There is no need of troubleshooting for possible fixing bugs since the web application is static.

FREQUENTLY ASKED QUESTIONS (FAQ)

1. What is Syrene?
Syrene is a chatbot that can interact with users via text. Syrene can interpret user queries and give relevant responses quickly.

2. Who will be the chatbot users?
Chatbot users may be anyone seeking help relating to mental heath.

3. Are chatbots new?
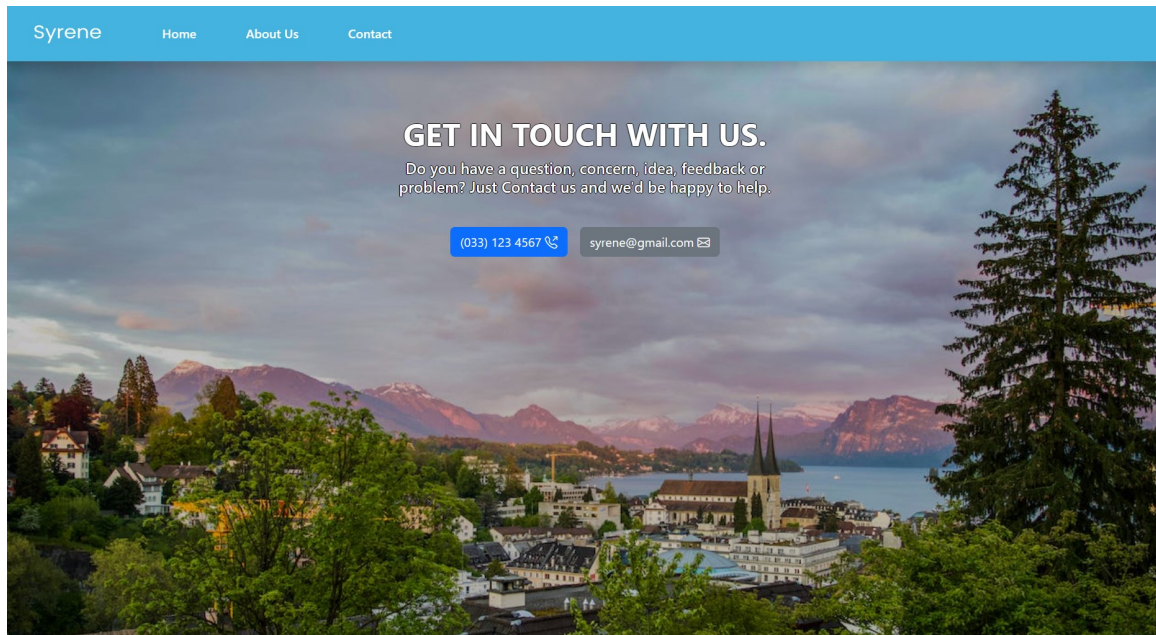*No. Conversational chatbots have already existed for decades. Many failed attempts have been made in the past to develop a chatbot that properly mimics human speech. In 1996, MIT professor Joseph Weizenbaum developed the first chatbot namely ELIZA, which was supposed to engage with persons like a therapist.*

4. What kind of questions should Syrene be able to answer?
Syrene should answer questions relating to mental health topics but can also answer basic questions like: "What is your name?"

5. How Syrene would help users?
Syrene would record a patient's data. By doing this, a medical health professional can review these data to better assist the user/patient.

6. Is Syrene multilingual?
No. Syrene is monolingual that can only understand English language.

7. How does your chatbot work?
Syrene, our chatbot, could understand and assess the user's request, responding to queries in a more human-like manner. We use machine learning algorithms that enable Natural Language Porocessing (NLP) for the chatbot to have conversations via text and which will facilitate the dialogue and analysis of text conversations.

8. Is there a log-in page?
No. This website doesn't have a log-in page. Just type in your name and it will directly go to our database.

9. Can I find a specialist in this website?
No. This web application doesn't provide any contact from a specialist.

CONTACT DETAILS OF THE SERENITEAM

Here are the contact details of per member of the Sereniteam:

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SYRENE