

EMBRACING WELL-BEING: A HOLISTIC CHATBOT SOLUTION WITH NLP, GAMES, AND PLATFORM INTEGRATION FOR DIVERSE MENTAL HEALTHCARE

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ABSTRACT

Our innovative solution combines a natural language processing chatbot with an ADAGRAD Optimizer, offering emotional support and stress relief games for adolescents, young adults, and seniors. Daily inspirational quotes enhance motivation, while a depression level test aids in early detection. Designed for accessibility, inclusivity, and targeted well-being across diverse populations.

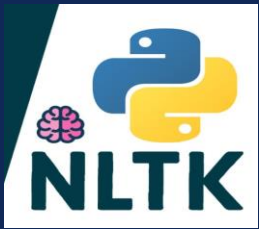
PROBLEM STATEMENT

The objective is to develop interventions that promote mental well-being and resilience, targeting adolescents, young adults, seniors, and other specific demographic groups. The focus will be on key areas such as stress management, emotional regulation, healthy coping mechanisms, and building resilience against adverse experiences. The challenge lies in designing solutions that are accessible , catering to the diverse needs and challenges faced by different populations.

PROPOSED SOLUTION

- ✓ Our proposed solution integrates an AI-powered chatbot utilizing natural language processing, SGD algorithm with ADAGRAD Optimizer to provide emotional support and assistance in stress management for adolescents, young adults, and seniors.
- ✓ Complemented by stress relief games, daily inspirational quotes foster motivation. To ensure inclusivity, the solution is designed with accessibility in mind.
- ✓ Additionally, a depression level test is incorporated for early detection, allowing tailored interventions for diverse populations, addressing key areas such as emotional regulation, healthy coping mechanisms, and building resilience against adverse experiences.
- ✓ The holistic approach aims to promote mental well-being across specific demographic groups.

TECHNOLOGY STACK..



NLTK



HTML



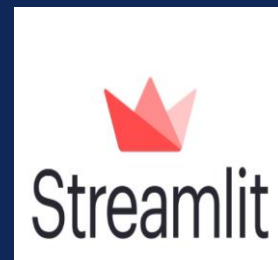
CSS



JS



FLASK



STREAMLIT

OUR SERVICES..

FEATURES OF OUR PROJECT



PSYCHIATRIST BOT

AI powered chatbot for providing emotional assistance .This is psychiatrist chatbot for mental health prevention utilizing Adagrad offers personalized and adaptive support to individuals struggling with mental health issues. By leveraging Adagrad's adaptive learning rate, the chatbot can dynamically adjust its responses based on user interactions, leading to more effective engagement and intervention.



DEPRESSION TEST

The depression test comprises a series of questions designed to assess an individual's mental and emotional well-being. By asking targeted questions about mood, behavior, and thought patterns, the test aims to identify potential symptoms of depression. Results from the test can provide valuable insights into an individual's mental health status and may guide them toward seeking appropriate support or treatment.



STRESS BURSTER

Stress buster games provide an interactive escape, engaging users in enjoyable activities that uplift their mood and promote relaxation. By offering immersive experiences and challenges, these games divert attention from stressors and foster a sense of accomplishment, boosting happiness and energy levels. Through playful engagement, users can alleviate tension and maintain a positive mindset, enhancing overall well-being and resilience against depression.

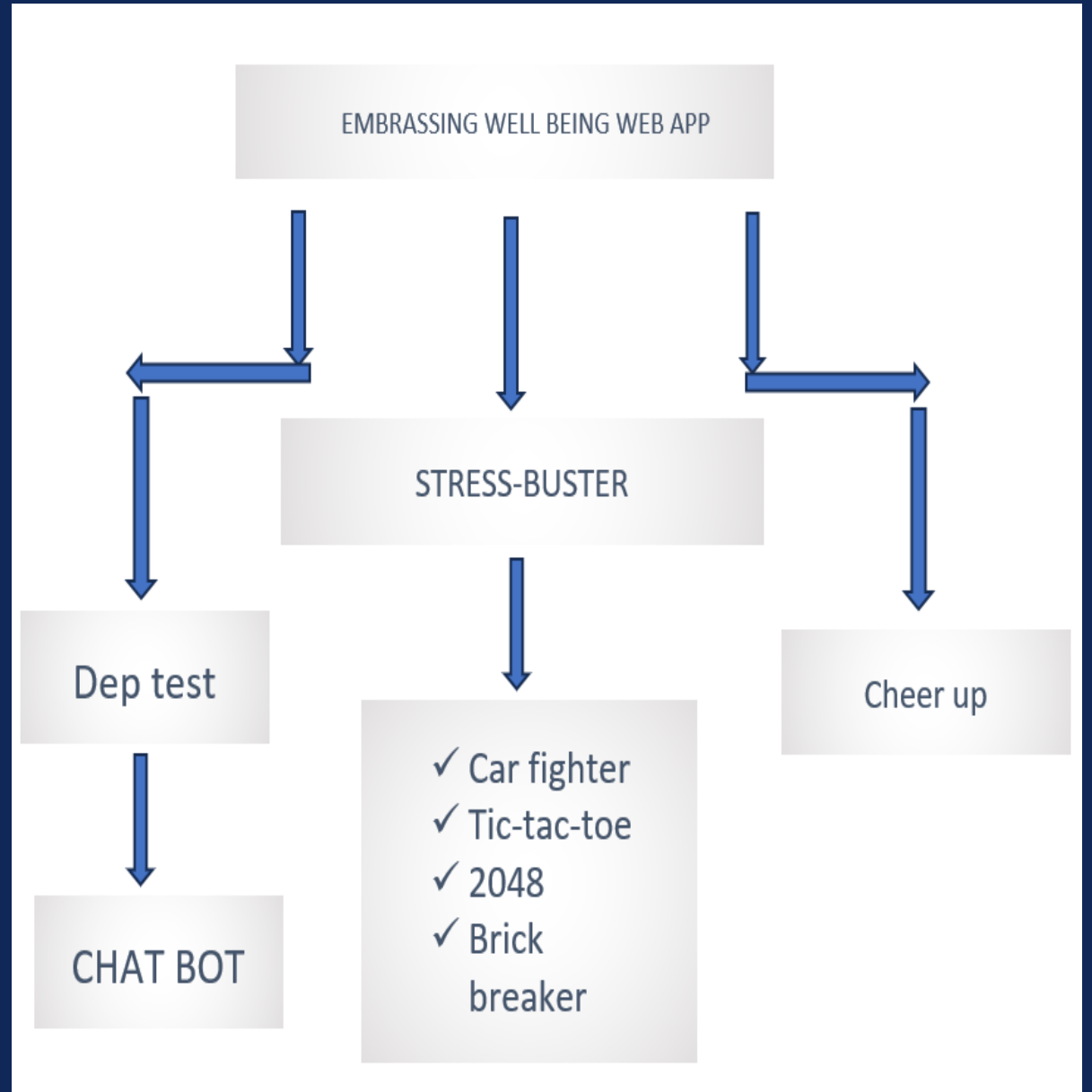


CHEER UP

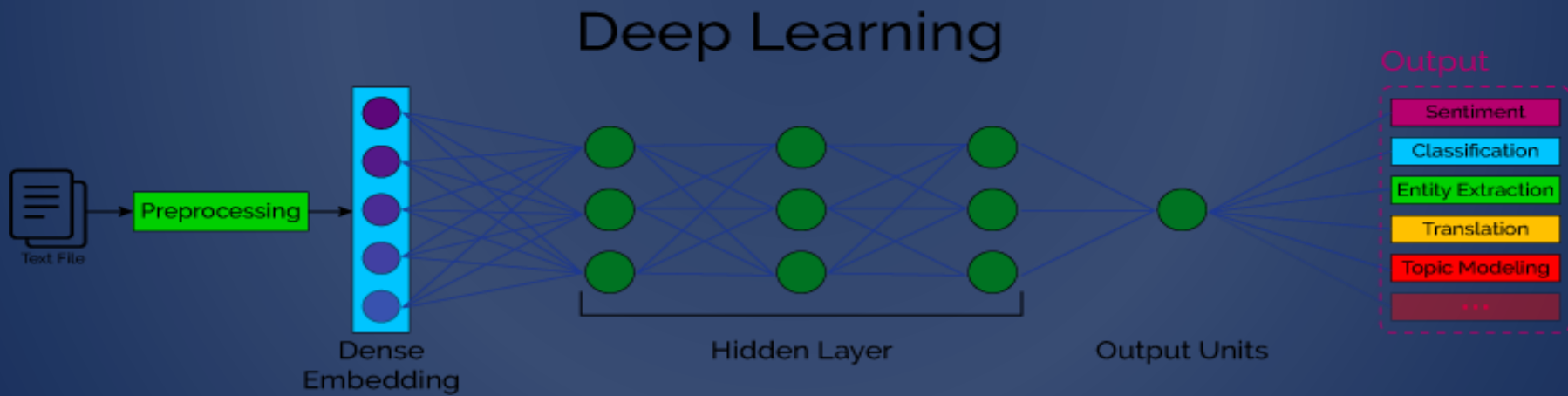
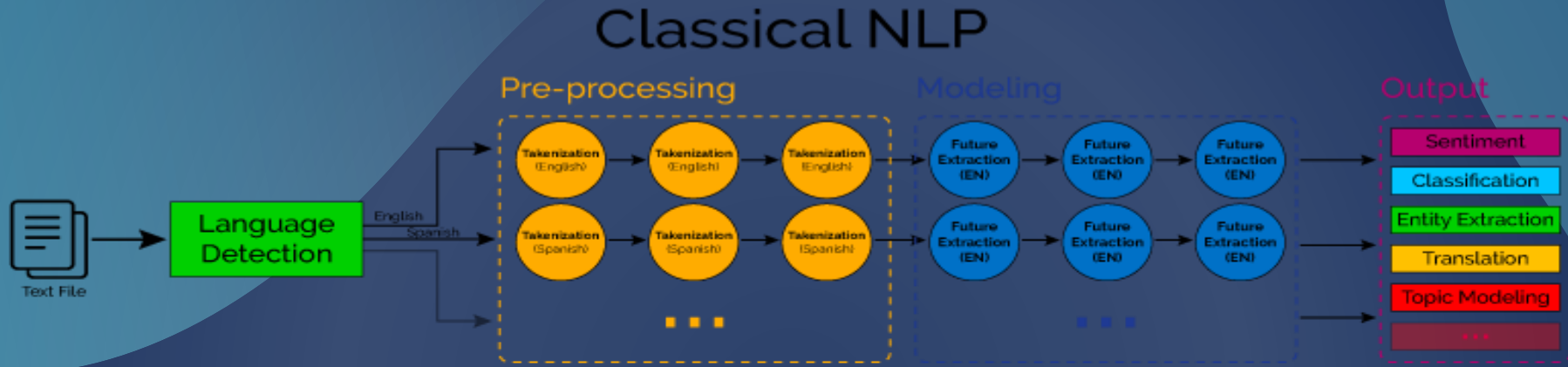
Cheer Up is a delightful tool designed to uplift your spirits with random positive quotes. It offers a collection of inspiring messages that brighten your day and bring a smile to your face. With its convenient integration, Cheer Up also allows you to effortlessly share these uplifting quotes on Twitter, spreading positivity with just a click. This tool provides positivity to the person and makes them to engage with happy.

FLOW CHART..

Our Project flow..

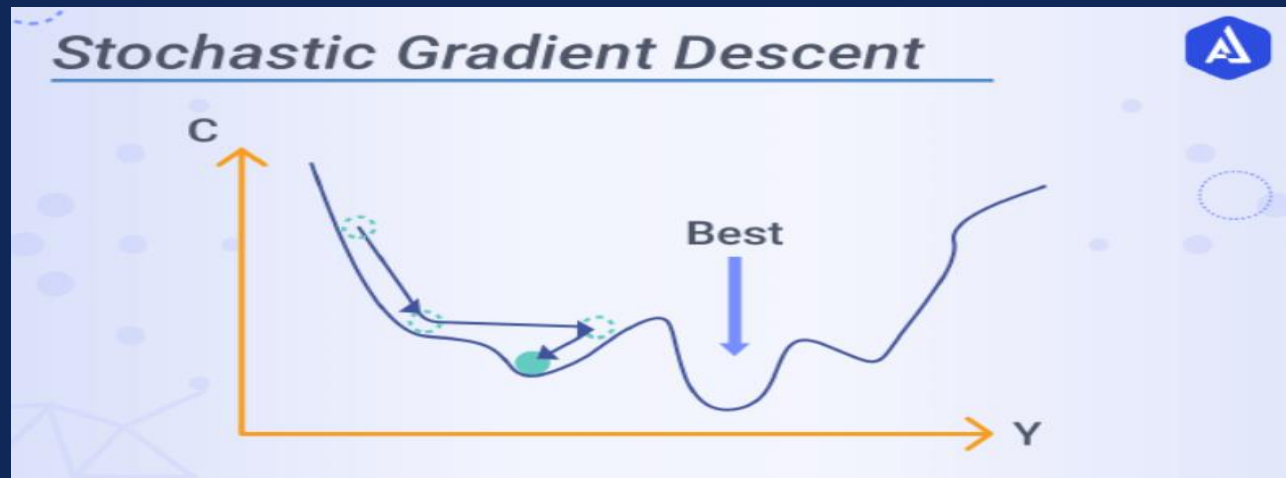


ARCHITECTURE..



SGD (NEURAL NETWORK).

- SGD has been successfully applied to large-scale and sparse machine learning problems often encountered in text classification and natural language processing.
- There is built-in support for sparse data given in any matrix in a format supported by `scipy.sparse`. For maximum efficiency, however, use the CSR matrix format as defined in `scipy.sparse`



RELEVANCE OF THE PROBLEM..

```

{"intents": [
  {"tag": "greeting",
   "patterns": ["Hi", "Hey", "Is anyone there?", "Hi there", "Hello", "Hey there", "Howdy", "Hola", "Bonjour", "Hay", "Sasa", "Good Evening", "Good afternoon"],
   "responses": ["Hello there. Tell me how are you feeling today?", "Hi there. What brings you here today?", "Hi there. How are you feeling today?", "Great to see you."],
  },
  {"tag": "morning",
   "patterns": ["Good morning"],
   "responses": ["Good morning. I hope you had a good night's sleep. How are you feeling today? "],
  },
  {"tag": "afternoon",
   "patterns": ["Good afternoon"],
   "responses": ["Good afternoon. How is your day going?"]
  },
  {"tag": "evening",
   "patterns": ["Good evening"],
   "responses": ["Good evening. How has your day been?"]
  },
  {"tag": "night",
   "patterns": ["Good night"],
   "responses": ["Good night. Get some proper sleep", "Good night. Sweet dreams."],
  },
  {"tag": "goodbye",
   "patterns": ["Bye", "See you later", "Goodbye", "Au revoir", "Sayonara", "ok bye", "Bye then", "Fare thee well"],
   "responses": ["See you later.", "Have a nice day.", "Bye! Come back again.", "I'll see you soon."],
  },
]

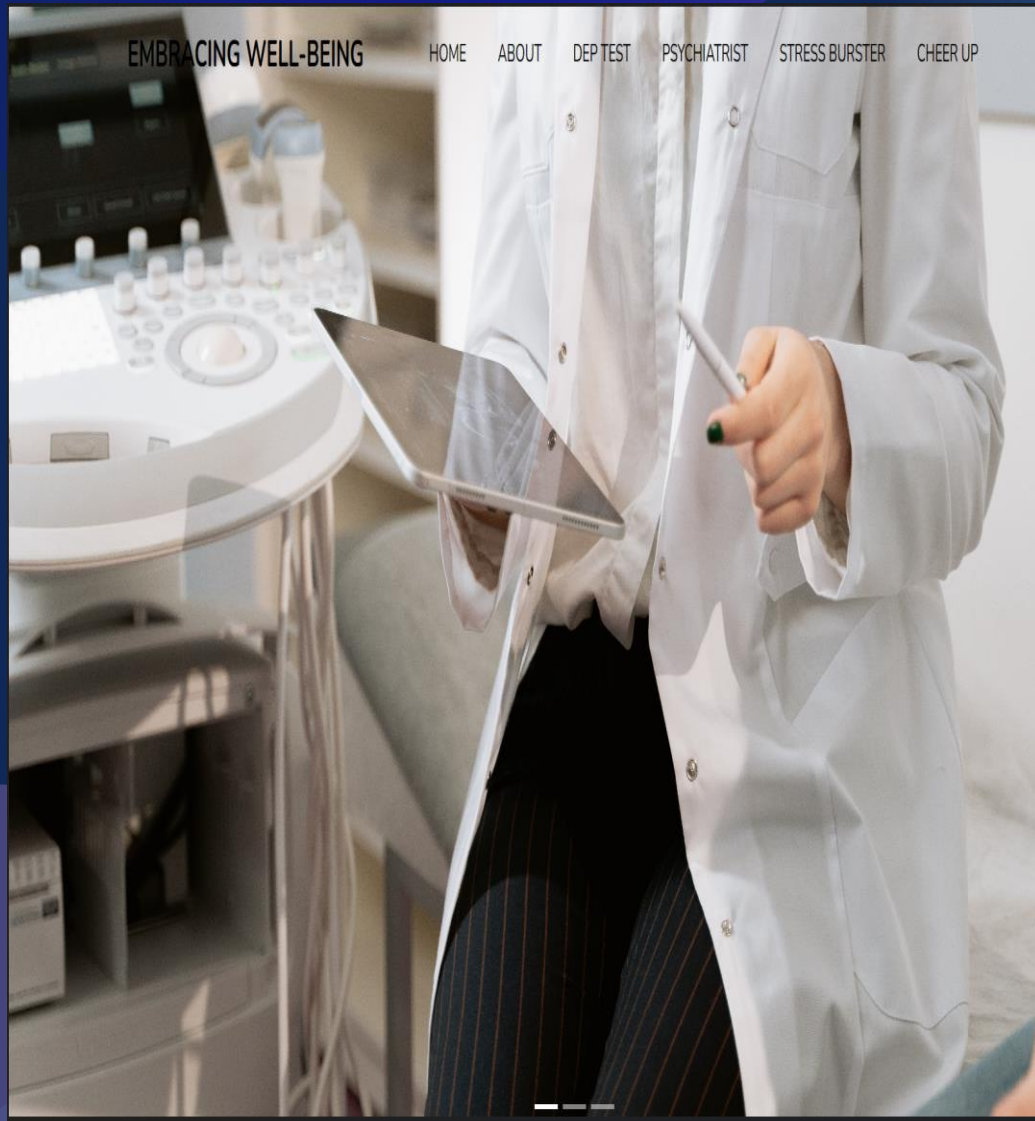
```

```

Epoch 1/200
57/57 [=====] - 1s 10ms/step - loss: 0.3336 - accuracy: 0.8905
Epoch 2/200
57/57 [=====] - 0s 6ms/step - loss: 0.3670 - accuracy: 0.8728
Epoch 3/200
57/57 [=====] - 0s 6ms/step - loss: 0.4515 - accuracy: 0.8622
Epoch 4/200
57/57 [=====] - 0s 6ms/step - loss: 0.3975 - accuracy: 0.8728
Epoch 5/200
57/57 [=====] - 0s 7ms/step - loss: 0.3705 - accuracy: 0.8551
Epoch 6/200
57/57 [=====] - 0s 7ms/step - loss: 0.4235 - accuracy: 0.8763
Epoch 7/200
57/57 [=====] - 0s 7ms/step - loss: 0.3885 - accuracy: 0.8728
Epoch 8/200
57/57 [=====] - 0s 7ms/step - loss: 0.3989 - accuracy: 0.8657
Epoch 9/200
57/57 [=====] - 0s 6ms/step - loss: 0.3906 - accuracy: 0.8622
Epoch 10/200
57/57 [=====] - 0s 7ms/step - loss: 0.4156 - accuracy: 0.8551
Epoch 11/200
57/57 [=====] - 0s 7ms/step - loss: 0.3525 - accuracy: 0.8869
Epoch 12/200
57/57 [=====] - 0s 6ms/step - loss: 0.4402 - accuracy: 0.8693
Epoch 13/200
...
Epoch 199/200
57/57 [=====] - 0s 6ms/step - loss: 0.3031 - accuracy: 0.8799
Epoch 200/200
57/57 [=====] - 0s 6ms/step - loss: 0.3522 - accuracy: 0.8799

```

USER INTERFACE-(DEP_TEST, HOMEPAGE)..



EMBRACING WELL-BEING

127.0.0.1:8080 says
It is recommended that you consult a therapist.

STRESS BURSTER

CHEER UP

Do you have trouble falling asleep, staying asleep, or experiencing restless sleep?

yes

Do you have recurrent thoughts of death or suicidal ideation?

yes

Do you feel a sense of isolation or disconnection from others?

yes

Send

Reach at..

Location

Call +91 1234567890

demo@gmail.com

About

Health systems are under greater pressure than ever, but along with its other uses, the potential of AI to provide much-needed relief to overworked doctors. can streamline

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Dep Test

Psychiatrist

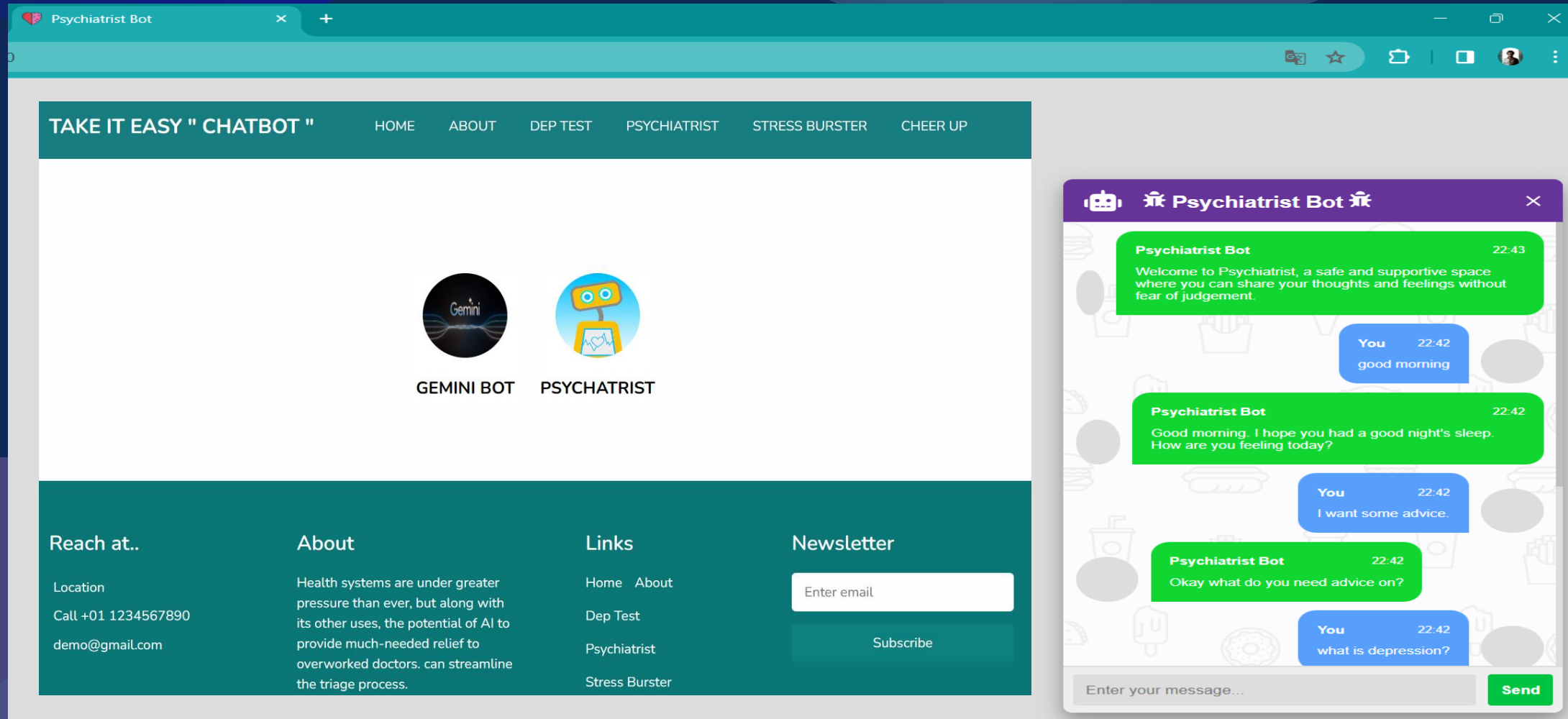
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HAVE A CUP OF GAME.....



CAR FIGHTER



TIC-TAC-TOE



2048



BRICK BREAKER

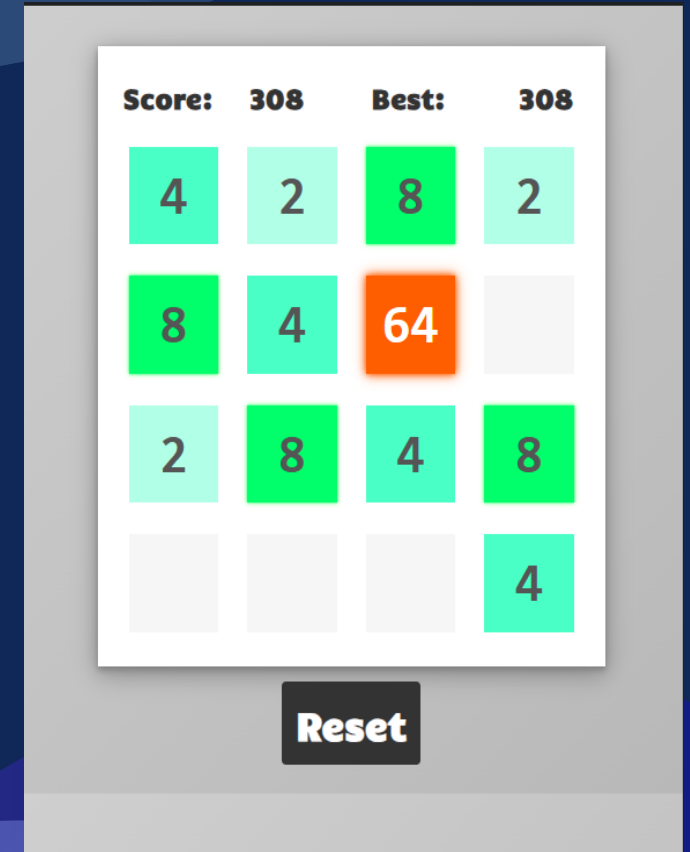
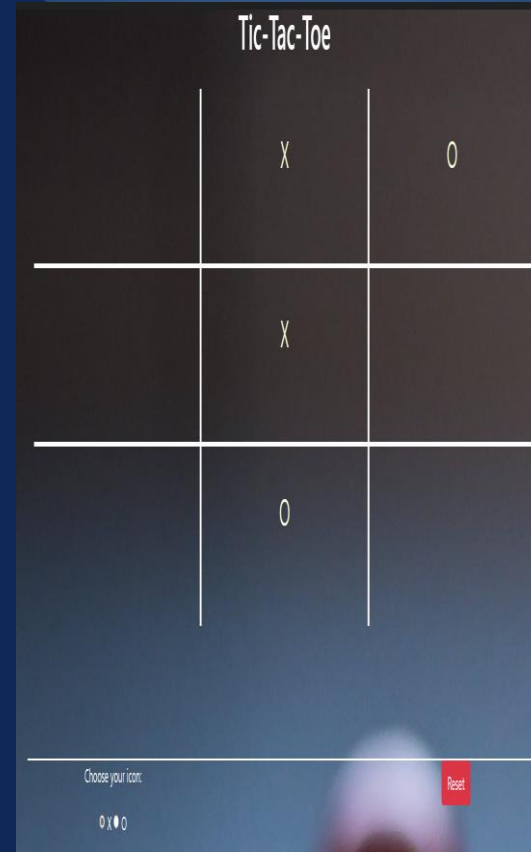
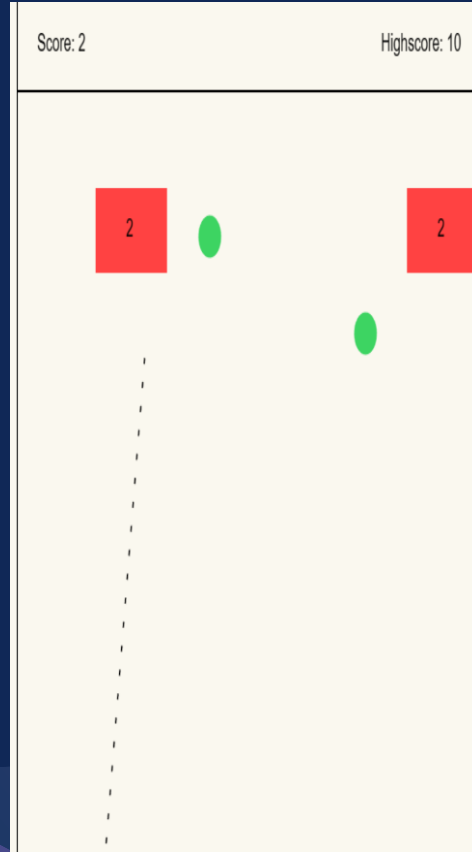
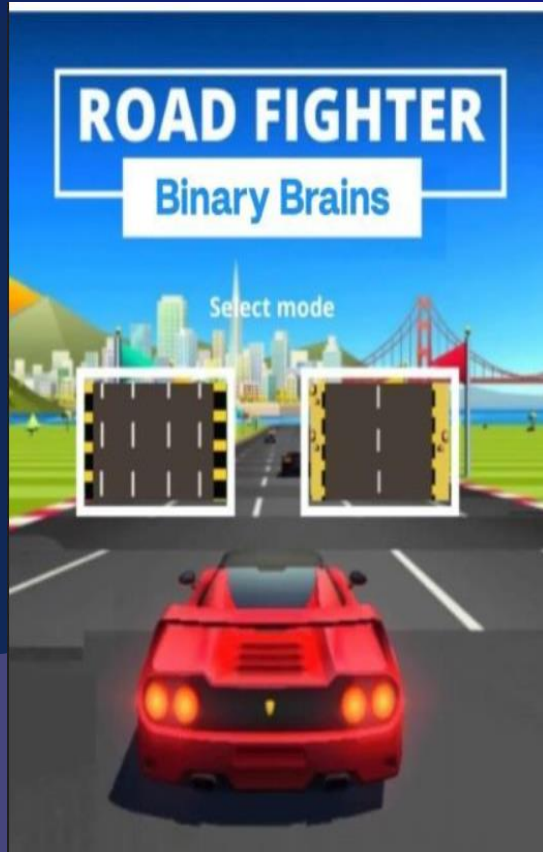
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USER INTERFACE-(OUR GAMES)...



USER INTERFACE-(DAILY QUOTES)..

EMBRACING WELL-BEING

HOME

ABOUT

DEP
TEST

PSYCHIATRIST

STRESS
BURSTER

CHEER
UP

Random Quote Machine

This is a random quote generator built with JavaScript. Just click on each section to view quotes on your favourite topic.



Book Quotes



Relationship Quotes



Sports Quotes



Life Quotes



Movie Quotes



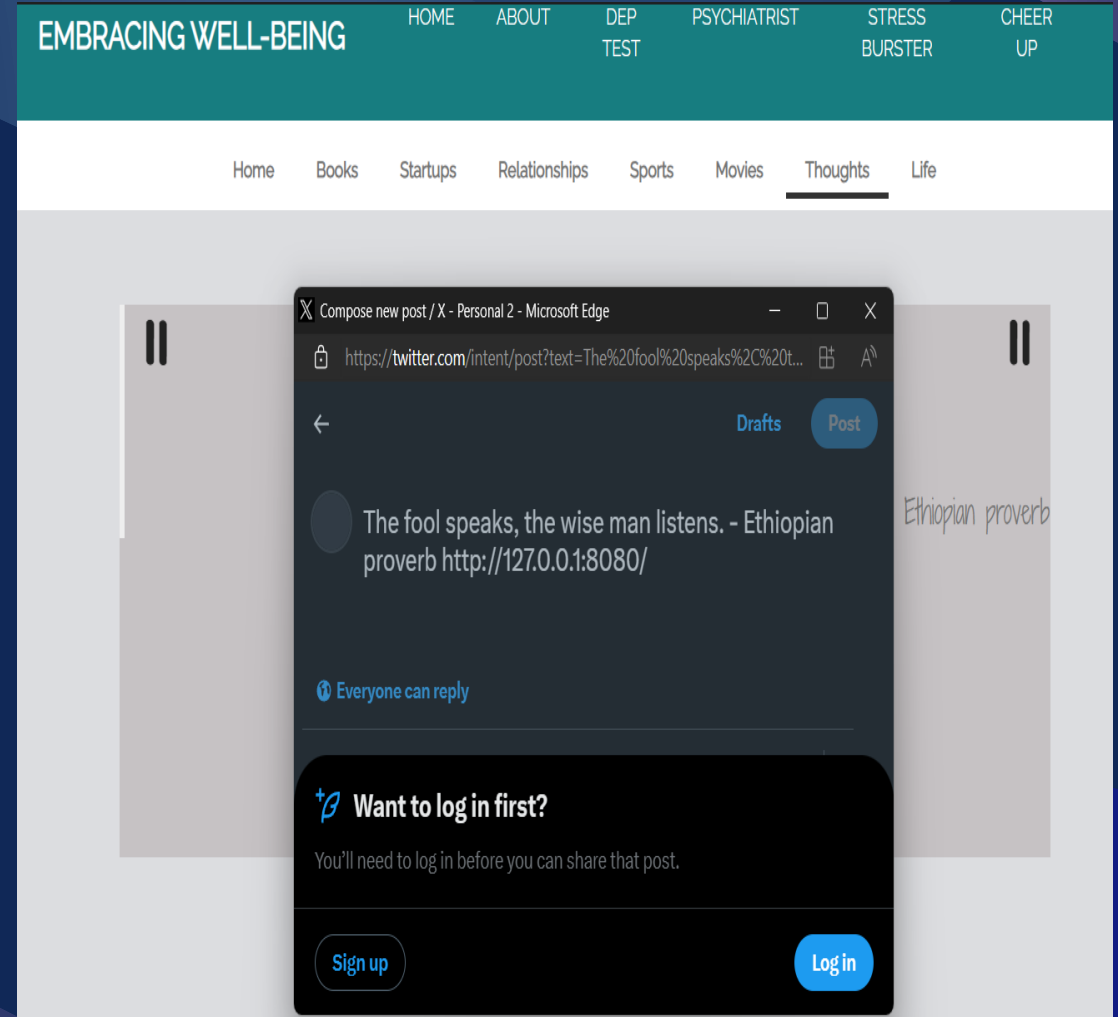
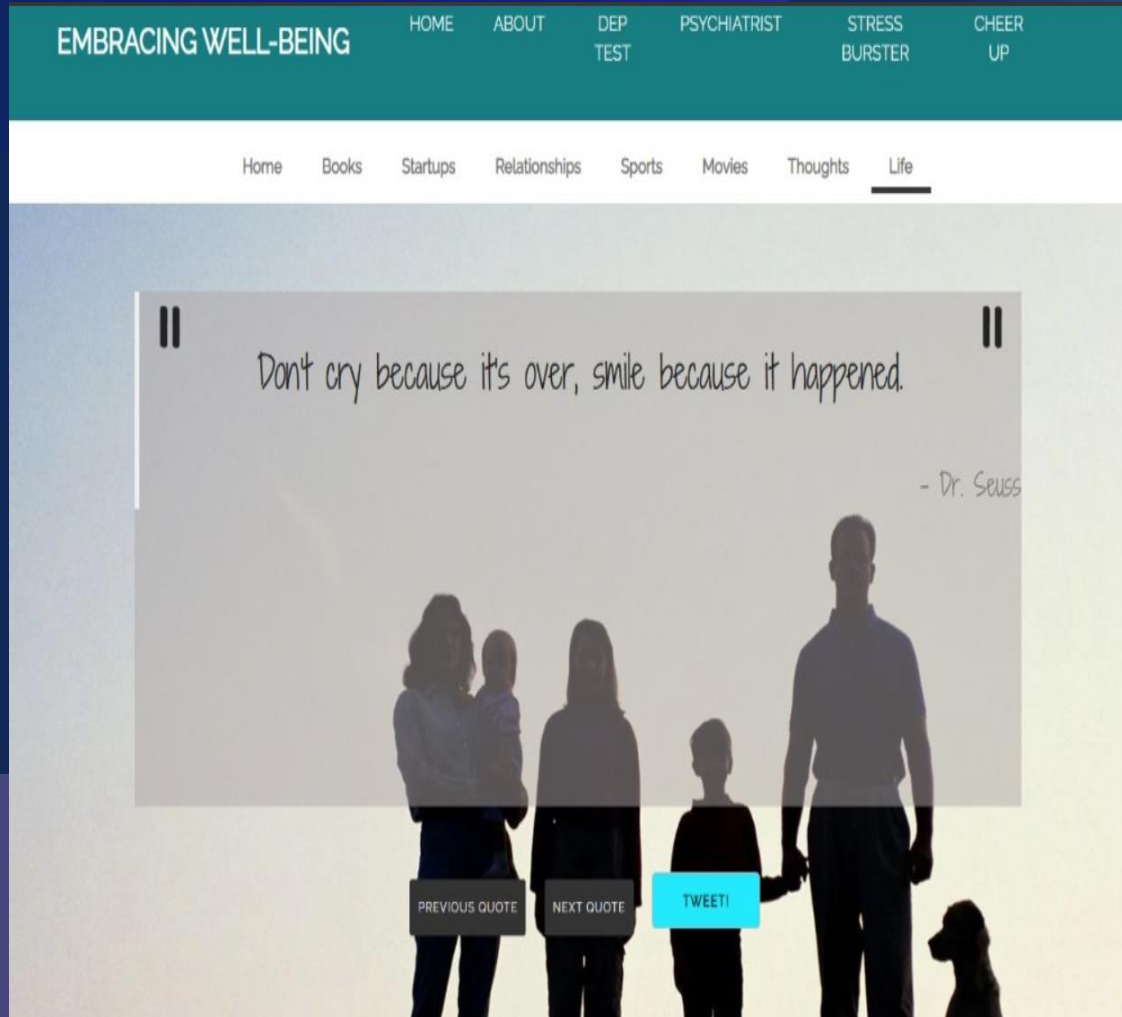
Startup Quotes



Thought for the day

Team Binary Brains

USER INTERFACE-(DAILY-QUOTES)..





THANK YOU

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