Team Alpha

ReadAid.ai:
Dyslexia & ADHD reader friendly content search and display

Our Team

Muhammad Talha

MS AI Student

Maria Waheed

Machine Learning Engineer

Imroze Aslam (Leader)

Senior Data Scientist

Introduction to Dyslexia and ADHD

- Dyslexia is the difficulty in reading due to not being able to detect sounds and linking them to letters and words (decoding) which is a learning disorder. Dyslexia affects 15-20% of the population.

- ADHD, short for Attention-Deficit/Hyperactivity Disorder, is a chronic condition that involves trouble with attention, hyperactivity, and impulsiveness. ADHD affects approximately 5-10% of children, with many continuing into adulthood.

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Importance of Improved Readability

- **Enhanced Comprehension:** Simplified and structured text aids understanding.
- **Increased Focus:** Easier-to-read content helps maintain attention and engagement.
- **Reduced Anxiety:** Clear and accessible text reduces frustration and stress.
- **Empowerment:** Improved readability boosts confidence, academic performance, and overall well-being.

ReadAid.ai

ReadAid.ai is a LangFlow and StreamLit based app for Dyslexia & ADHD reader friendly content search and display.

It uses Web Search, Agents and Prompt Engineering to generate content on a given topic with suitable language, structure, formatting and display to help Dyslexic and ADHD readers.
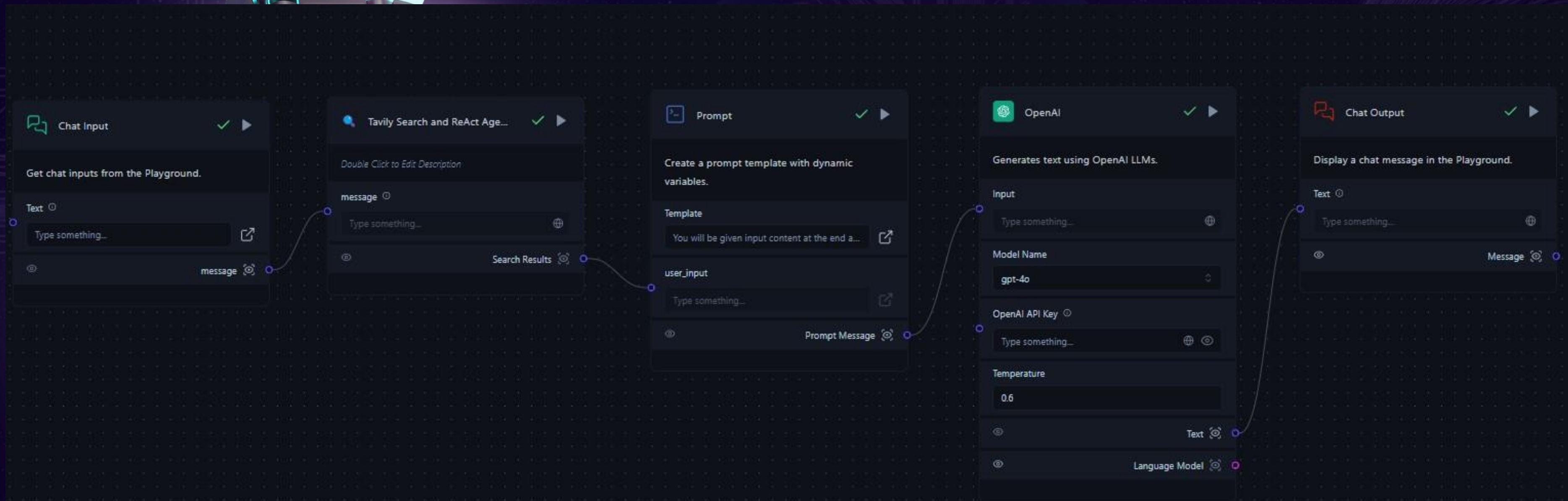
Working of ReadAid.ai:

- A LangFlow Custom Component was developed for Content Generation. It uses Tavily Search API combined with a LangChain ReAct Agent for web scrapping, reasoning and content collection. This Custom Component is helpful to be reused for other LangFlow projects too.

- Research was done on readability for Dyslexia & ADHD readers to make guidelines with many considerations for structuring, formatting and displaying the content. Prompt Engineering was done and those guidelines were used inside a GPT-4o Prompt that generates an HTML with suitable formatting.

- A StreamLit App was developed that takes the topic as user input and uses the LangFlow Flow's JSON in the Python code, to get the result HTML and displays it.

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ReadAid.ai User Interface

ReadAid.ai : Dyslexia & ADHD reader friendly content search and display

Enter the Topic on which you want Information:

symptoms of dyslexia

Generate Content with Readability

Dyslexia Information

Dyslexia is a learning disorder that primarily affects reading, spelling, and language skills.

Common Symptoms

- Difficulties in reading accurately and fluently.
- Recognizing and understanding words.
- Spelling words correctly.
- Understanding the order of letters in words.
- Sequencing and organizing thoughts.
- Memorizing information.
- Following instructions.
- Expressing thoughts clearly in writing.

It's important to note that dyslexia can manifest differently in individuals and may also come with strengths such as creativity, problem-solving skills, and strong verbal abilities.

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ReadAid.ai Output Guidelines Overview

- Simple, Clean Fonts
- Adequate Font Size
- Simple Language
- Short Blocks of Text
- Clear headings and subheadings
- Consistent Layout
- Bold First Letters
- Important Words Highlighted

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Conclusion

Addressing Key Issues:
Our app tackles a significant challenges faced by individuals with Dyslexia and ADHD.

Accessibility and Inclusion
Ensuring content is accessible benefits a wider audience, promoting inclusivity.

Positive Impact
By improving readability, we can enhance learning experiences, reduce anxiety, and empower individuals with Dyslexia and ADHD to achieve their full potential.

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Thank You!