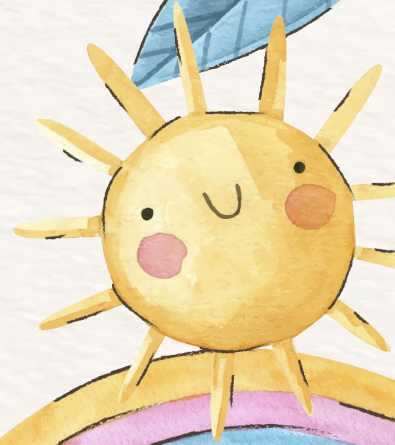




WonderScribe

Where Stories Come to
Life...

Dream Team: Jailyne Estevez, Wil Bradford,
Natsnet Demoz, Mian Haseeb, Jay Prakash



The Team of Storytellers



Jailyne

Program Management & UI/UX Design



Natsnet

Exploratory Data Analysis & Front-End Development



Mian

Visionary & Lead Machine Learning Engineer



Jay

AWS Architecture & Product Management



Wil

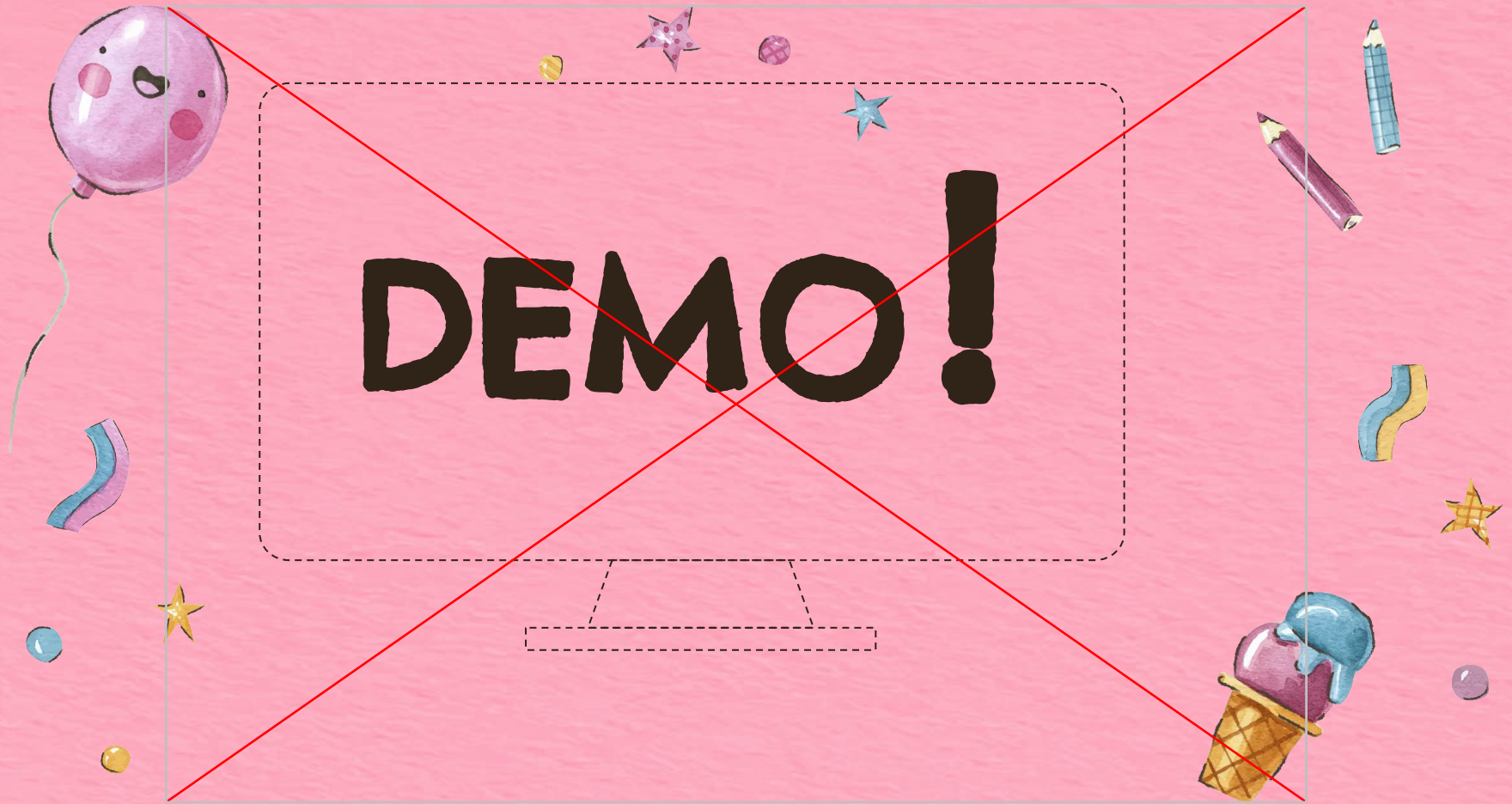
Subject Matter Expert and Infrastructure



WonderScribe


WonderScribe is an innovative platform where children create personalized stories, images, and audio through Generative AI, fostering creativity, literacy, and inclusivity.

DEMO!



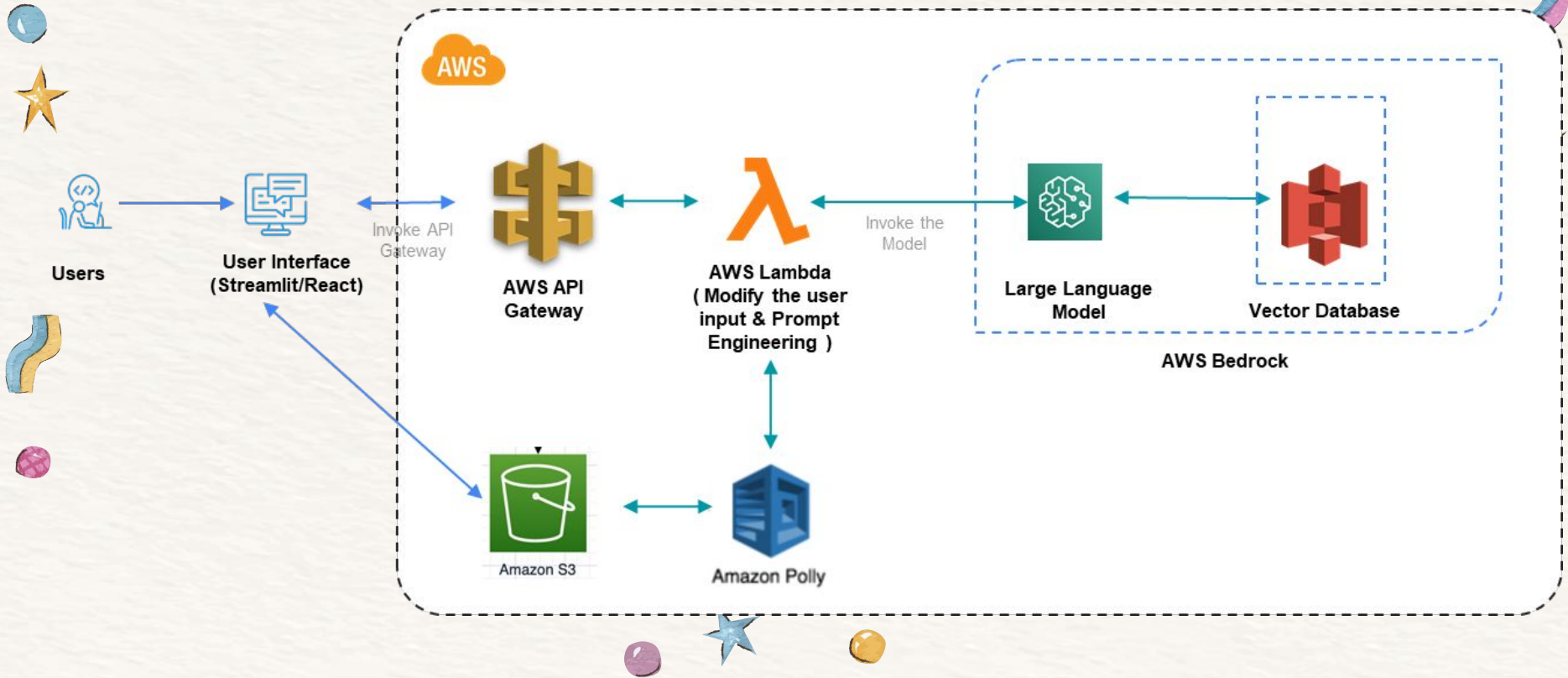


The Problem **Space**

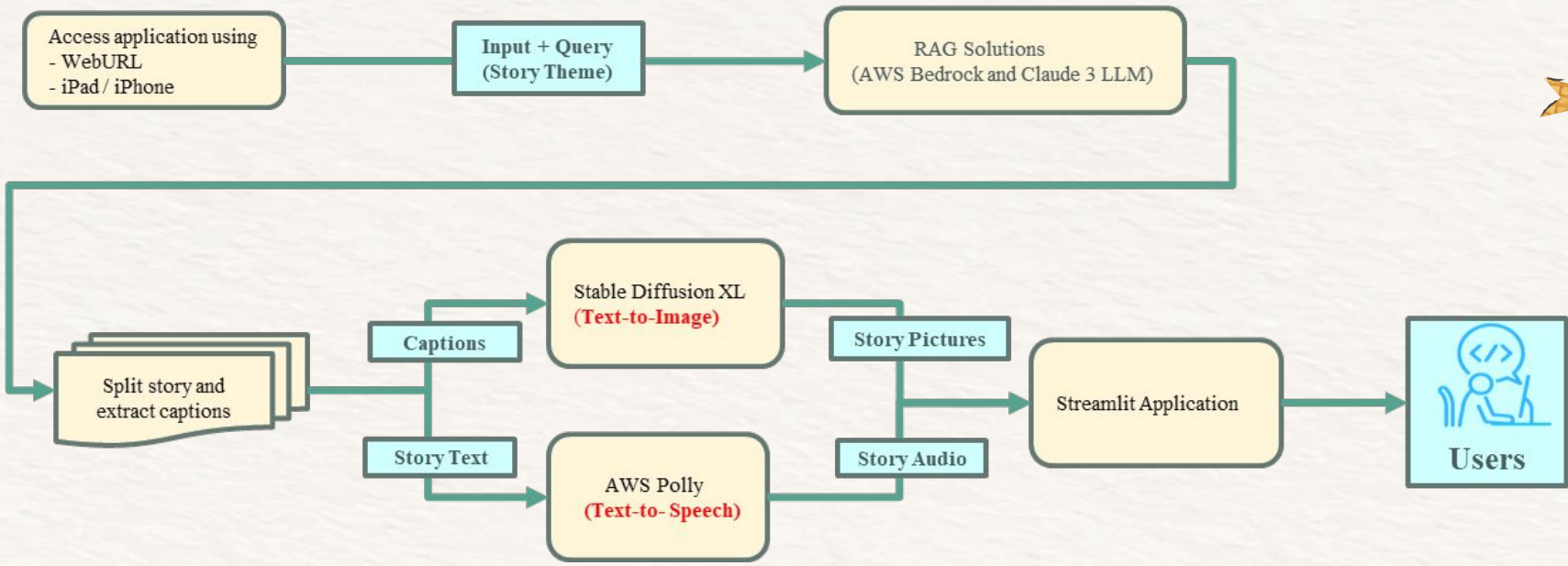
- 
- ★ **Thematic Problem:** Traditional storytelling lacks interactivity for digital-native generations.
 - ★ **Specific Problem** : Personalized, interactive tools for children are missing.
 - ★ **Lack of Creativity:** Parents and Educators having to read the same stories over and over again



Architecture



Application Process -Flow



Why Choose These LLMs?

Feature	Claude 3 (Haiku LL3)	Stable Diffusion LLM
Purpose	Text story generation	Story image generation
Proficiency	Excellent in human-like text	High-quality visuals
Customizability	Highly adaptable	Requires fine-tuning
Scalability	Scalable across contexts	Resource-intensive scalability
Safety	Strong compliance filters	Needs additional ethical safeguards
Versatility	Flexible in crafting narratives	Supports various artistic styles
Cost-Effectiveness	Efficient computationally	Compute-intensive for high-quality output

Product Evaluation



RAG Model Evaluation

- **ROUGE:** Measures content overlap
- **BLEU:** Assesses translation accuracy
- **BERTScore:** Evaluates semantic similarity



Multimedia Story Evaluation

- **Story Images:** Manual validation for quality and relevance
- **Story Audio:** Manual validation for clarity and engagement



Experiment#	Prompt Type	Embedding Model	Model Name	Temperature	top_p	Chunk Size	Story Setting	Story Moral	Prompt Query	Rouge			Bleu	BertScore f1
										Rouge1	Rouge2	RougeL		
1	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Magical Kingdoms	build trust	Friendship between two boys	0.478	0.1665	0.2379	0.1433	0.8661
2	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Digital World	Developing Hygiene practice	Brushing the tooth	0.5012	0.1814	0.2687	0.1008	0.8638
3	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Pirate Ship	kindness	A kid astronaut explores different planets	0.3367	0.675	0.1762	0.0432	0.8515
5	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Fairy Tales	Protect reef	An underwater journey where a child befriends a	0.448	0.175	0.2334	0.1332	0.8441
6	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Fantasy	Develop creativity	A magical club where kids have bicycles that can fly	0.5111	0.1775	0.2444	0.1551	0.8032
5	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Adventure	Teamwork and perseverance	Forest animals host their own Olympics games	0.5012	0.1814	0.2687	0.1008	0.8638
6	default rag template	Titan Text Embeddingsv2	Claude 3 Haiku	0.7	0.9	512	Horror	Overcome fears	story about a young dream weaver who visits children's	0.437	0.772	0.1832	0.0632	0.8334

User Feedback & Resolutions

Feedback Highlights:

- Parents appreciate the creative flexibility.
- Kids are thrilled by interactive storytelling.
- Kids are excited to see themselves on the story

Resolutions:

- Lack of interactivity in traditional tools.
- Gaps in personalization and inclusivity.
- Bridging storytelling with multi-sensory engagement.



Overcoming Challenges



Diversity in Storytelling Themes

Solution: Curated global templates, manual reviews



Ensure story Output

Solution: Through effective prompt engineering, ensure consistently delivers story outputs.



Visual Consistency


Solution: Advanced prompt engineering techniques.





Future of WonderScribe

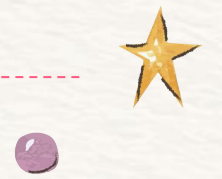
NEXT STEPS

1. Add gamified storytelling features.
 2. Add feature to download eStory and create an eBook
 3. Optimize backend for faster performance.
 4. Expand to 20+ languages using localized datasets.
 5. American Sign Language
- 



Generalization Potential :

Adaptable for educational tools and interactive media.



WonderScribe's **Mission**

Mission Statement: Empowering children to express their creativity through personalized storytelling.

Call-to-Action:

- Imagine a world where every child's story can be heard, seen, and shared.
- Join us in making this vision a reality!



Q&A



Appendix



Modeling Approach

Architecture: Retrieval-Augmented Generation (RAG).



- **Retrieval:** Contextually relevant elements from datasets.

- **Generation:** Anthropic Haiku model for text.



- **Integration:** Stability Diffusion for visuals.

Innovations:



- Prompt engineering ensures visual consistency.



- Feature engineering enhances cultural diversity in outputs.

