Project Synopsis Document

Project Number	**2**
Project Title	**Speech2Speech Buffer**
Document	**DASS Project Concept Document**
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Description

- This project addresses the challenge of real-time language translation during conversations.
- This project involves creating a backend system using RabbitMQ for queue-based communication and using Fast API for efficiency and persistant queues for data recovery.
- We also need to ensure reliability and minimize disruptions, a buffering mechanism is implemented to maintain continuous audio delivery, even if system failures occur.
- This enhances user experience by reducing noticeable lags or interruptions in the translation process.

Profile of Users

- **Multilingual Speakers and Listeners**: Need fast and clear real-time language translation to communicate easily.
- **Interpreters**: Rely on accurate and reliable translations to do their job without interruptions.

- **Professionals**: Expect a smooth and efficient system to ensure clear communication during meetings or events.
- **Educators and Students**: Want a simple and easy-to-use design that works for all skill levels with technology.
- **General Users**: Prefer a user-friendly system that is quick to set up and doesn’t require technical knowledge.

Usage Diagrams: