RUNTIME TERROR:
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“Special Olympics is a global movement that unleashes the human spirit every day around the world through the joy of sport.”
26% of all U.S. adults have some type of disability

Source: cdc.gov
10.8% of these disabilities are cognitive-based

Source: cdc.gov
Problems

● COVID → virtual communication

● People with certain intellectual disabilities struggle with online communication

● No existing online tools that cater to intellectual disabilities
Solutions

● Accessibility & Usability

● Emotion Detection
Emotion Detection

- Facial Expression Recognition
  - Video conferencing
  - Real-time sentiment analysis

- Emotion Recognition via Speech
  - Audio conferencing
  - When cameras are unavailable
Accessibility & Usability

- Simple navigation
  - Tab navigation & Large UI
- UI rooted in research
  - Accommodate for ASD
- Reaction UI
  - Improve Communication
Meet the Team

- **Coach:** Jerry
- **Athletes:** Larry and Mike
CUEMEIN
DEMO
Backend Microservices

Peer-To-Peer React Client

Audio Processing API

IBM Watson

Peer-To-Peer React Client

Image Processing API

Microsoft Azure
Strengths & Improvements

Visible Emotion Icon & Text Display

Participant Reaction Display

Mute Audio, Turn on/off Camera, Silence Buttons

Reaction Buttons
FINAL TAKEAWAYS
THANK YOU

Special thanks to the Special Olympics, along with our mentors: John, Nilesh, Meg, Anne, Nidhi, Joe, and Vinita!
Questions?