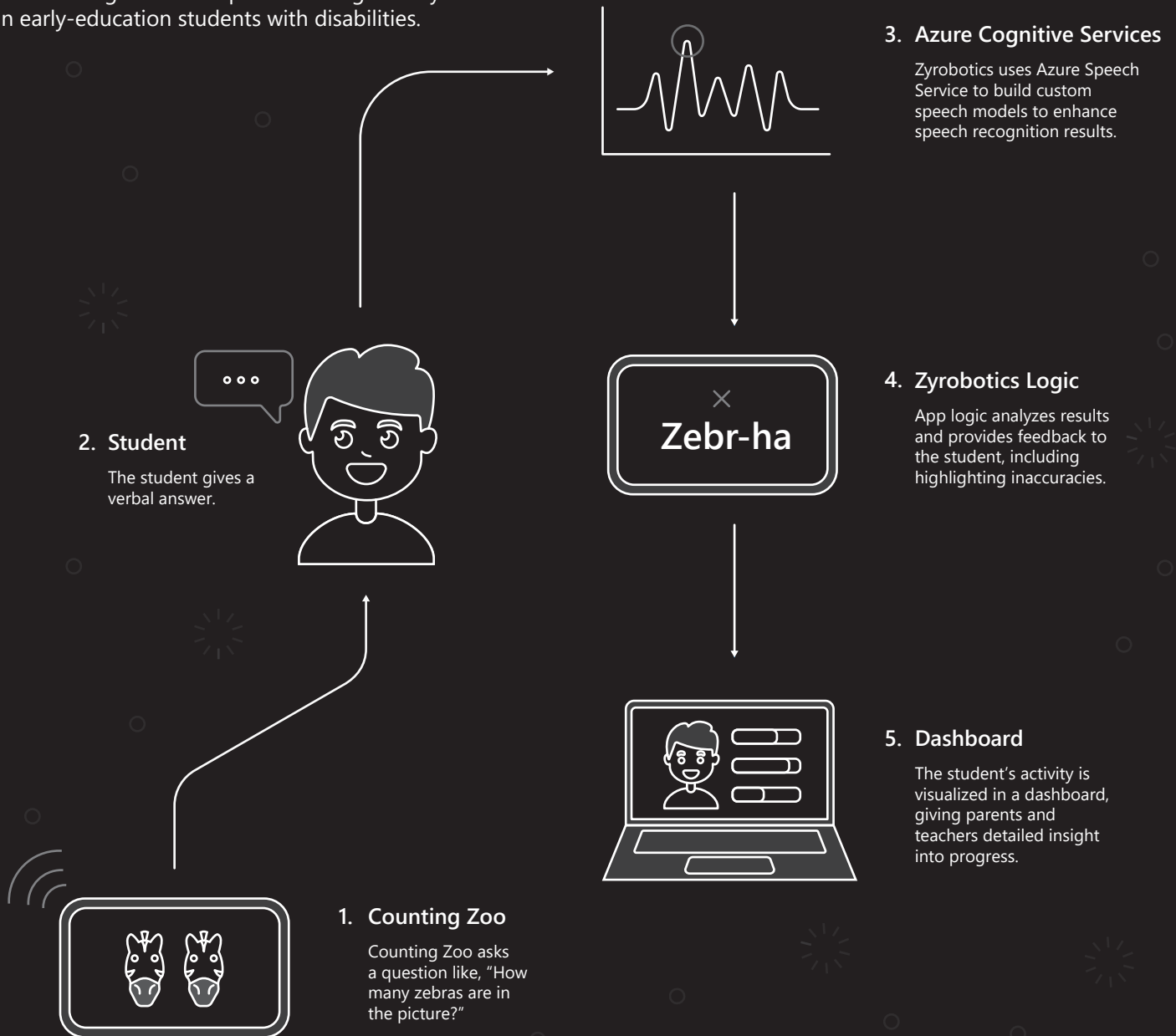AI for Accessibility

Zyrobotics

Zyrobotics develops interactive STEM games and learning tools to improve reading fluency in early-education students with disabilities.

3. Azure Cognitive Services

Zyrobotics uses Azure Speech Service to build custom speech models to enhance speech recognition results.

2. Student

The student gives a verbal answer.

Zebr-ha

4. Zyrobotics Logic

App logic analyzes results and provides feedback to the student, including highlighting inaccuracies.

5. Dashboard

The student's activity is visualized in a dashboard, giving parents and teachers detailed insight into progress.

1. Counting Zoo

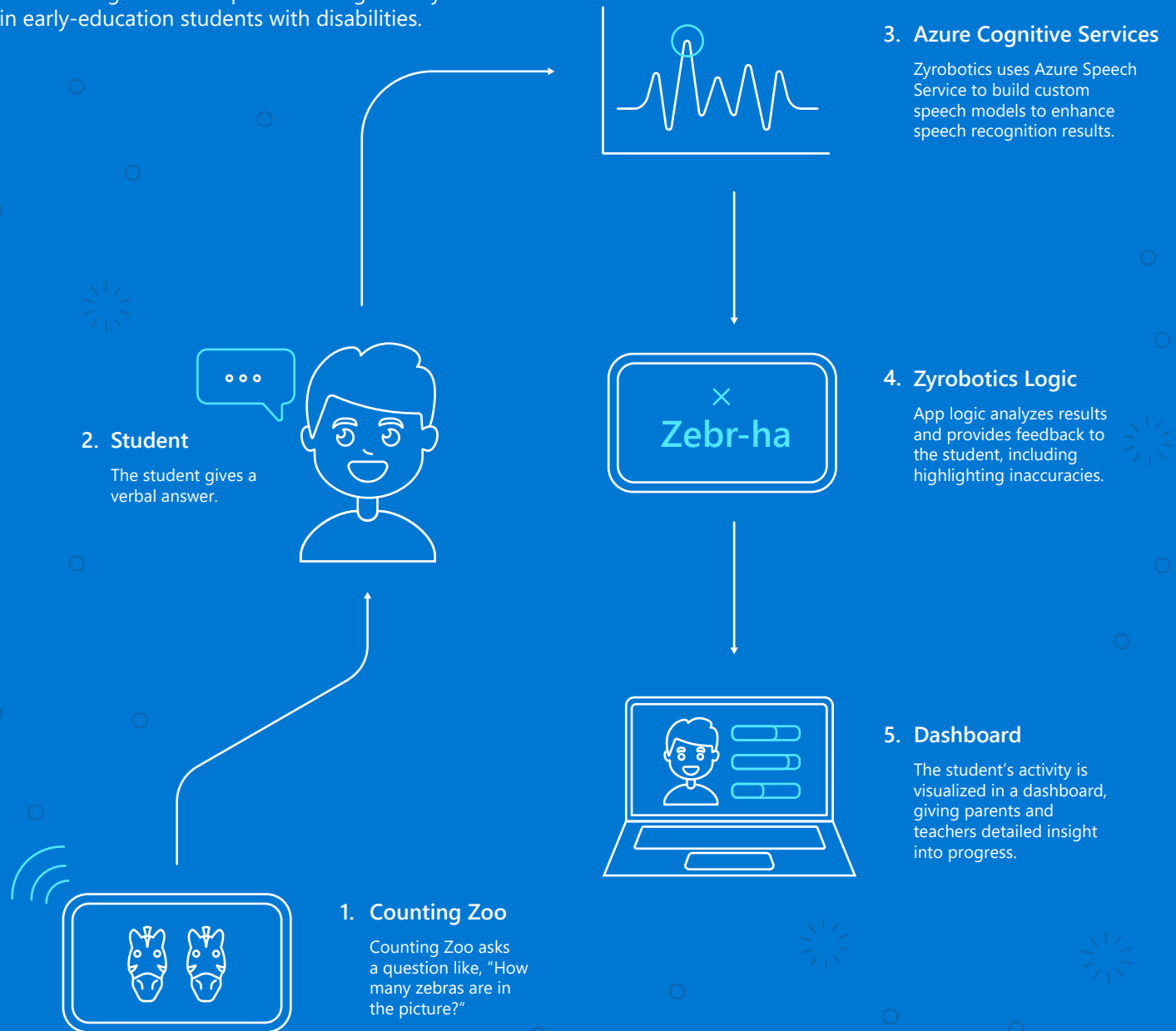Counting Zoo asks a question like, "How many zebras are in the picture?"

Challenge

In 2016, roughly 34 percent of students in the United States received special education services for a learning disability. Despite this prevalence, teachers in low-income communities consistently lack the resources necessary to support students with disabilities. And as budgets shrink, the number of students struggling with basic speech and reading skills continues to grow.

Solution

Zyrobotics leveraged powerful AI and interactive learning to create Counting Zoo, an immersive eReader game aimed at bringing speech therapy to students in underserved communities. Counting Zoo reads stories aloud to students and asks interactive questions like "How many zebras are in the picture?" As students reply verbally—"I see one, two, three ... four zebras!"—the app's logic analyzes the speech for non-standard patterns. Azure Speech Service converts the analyzed speech to text onscreen, allowing students to visually learn from their mistakes.

Microsoft

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