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Hello we are

# Team Spark

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CUNY TechWorks Grow With Google 2019 Hackathon

# Our Team



**Team Five** with one of our Student Influencers **Sam Berman**

Bibata Rabba Idi  
Carol-Anne Ryce-Paul

Daniel Lebo

MiJin Kim

Nathan Paul

Nursultan Zhumabaev

Paul Austria

Wilson Yu

We were mentored by

**Zulaica Montas**

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# Introduction

We are here to tell you about our CUNY students Sam and Ashia, whose classroom lecture experience does not consider the impact of their disabilities

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# Insights

## Our CUNY Students Stories

We interviewed two of our Student Influencers about their lives in the classroom and the challenges and opportunities in simply going to class and learning in a “traditional” college lecture

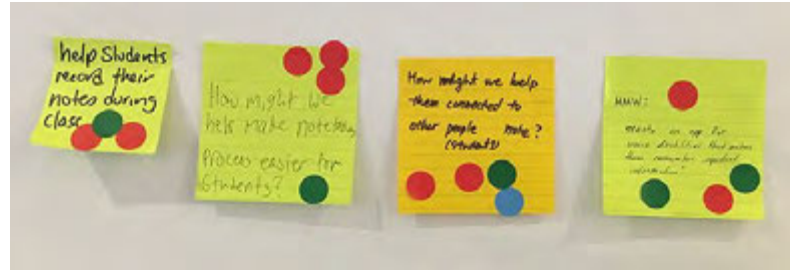
# Affinity map



# How might we



- Ease of access
- Connecting
- Software



- Help students to record lectures during class?
- Help note taking process easier for students?
- Help students feeling connected to other's note?
- Help students with disabilities remember important information?



**How Might We**  
help users with  
disabilities remember  
important information?

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# Insights

Ashia who has ADHD (Attention Deficit Hyperactivity Disorder) speaks of her not being able to concentrate during her lectures, because of her disability and because she has to multi-task

Sam who has multiple disabilities spoke to us of his having to multi-task while in the classroom

**Multi-tasking is their biggest challenge**

Missing important information on note that wasn't written down

Note written by taker

Lecture Slide

Notes not legible

**SEEING**

**THINKING**

Reading my transcriber's handwriting was difficult

Difficulty taking notes and listening

Hard to do two things at the same time

Hassle to manually enter in reminders

**PAINS**

Hard to focus on listening lectures and take notes at the same time

Often, there are missing notes

Difficult to get the sense of notes since they are made by other people

Hard to read someone else's handwriting

Frustrated

Overwhelmed

Confused

Limited

Detached

Angry

Annoyed

**FEELING**

**HEARING**

Lectures

Transcribe Audio

**GAINS**

I can go to school to attend classes

I can study



**MULTI-TASKING IS HARD**

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# Insights

We believe this to be our biggest opportunity for Sam and Ashia, and ultimately for all CUNY students

Based on our team's research, and our interviewing, we learned that removing the need for students to record and transcribe class notes, while in class, is the major challenge to effectively learning





## THE PROBLEM

- Concentrating
- Taking Notes
- Multi-tasking
- Organization
- Understanding

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# Insights

These following slides depict a student's classroom lecture experience



Google TA



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# What is the Google TA app?

Our solution is integrated into and is a part of

- The Google AIY artificial intelligence kits
- A suite of accessibility software students can access with their smartphones, and
- An IT system integrated into the CUNY backend software architecture, with the university's intranet, and student's CUNYFirst ecosystem



## THE ECOSYSTEM

Alerts the CUNY system, the professor, and the students of your attendance

## GOOGLE SCANNER

Uses Sensor Fusion technology to scan students entering the class





## **GOOGLE VOICE KIT AND CAMERA**

Records the entire class discussion real-time and sends it to the cloud





## **VISUALLY IMPAIRED**

Google Voice Kit AI records the class, converts it to audio files, and stores it in the **GOOGLE CLOUD**

## **HEARING IMPAIRED**

Uses the Augmented Reality feature to see live captions from the discussion and connects to hearing equipment

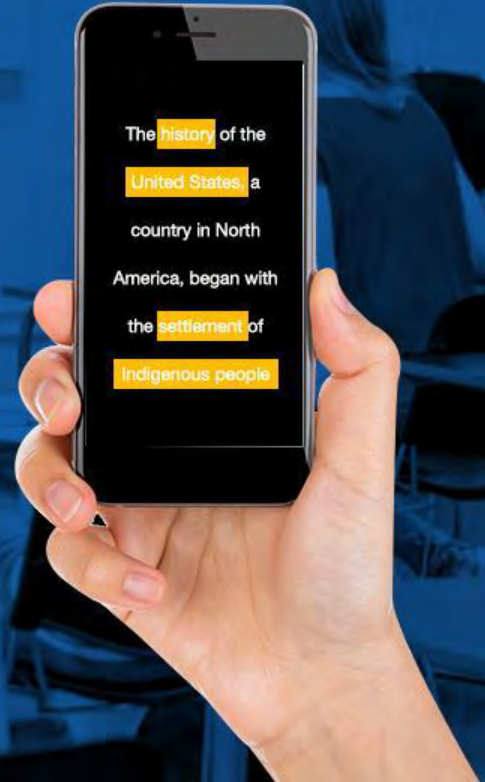






## LEARNING IMPAIRED

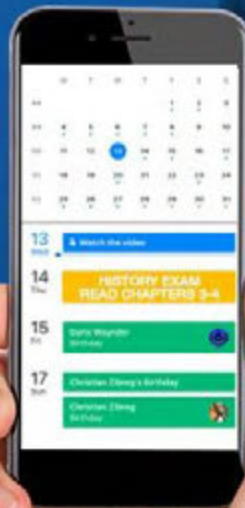
**GOOGLE AI** saves keywords and categorizes them according to priority or the hierarchy of information. Later on, the student can add, insert, and share notes in **GOOGLE SLIDE DECK** or **GOOGLE DOCS**





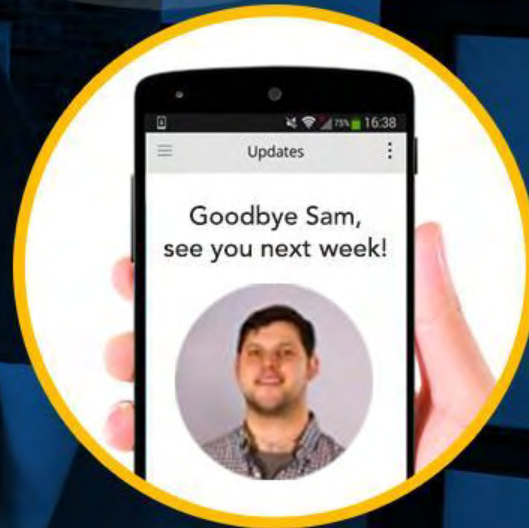
Okay, kindly  
read chapters 3-4.  
We have an exam  
next week.

**THE GOOGLE VOICE AI** listens for **KEYWORD** triggers, sets schedules, and syncs it with the students' phone and **GOOGLE CALENDAR**





As soon as the student leaves, it triggers the **GOOGLE SCANNER** and logs you out of class



## IT DOESN'T END IN THE CLASSROOM

After the class lecture, the student will...

- Receive an email alert containing the complete transcript of the class editable in **GOOGLE DOCS**
- Receive an SMS with a unique IP ADDRESS leading you to the **GOOGLE CLOUD / CUNY DATABASE** containing all the files from that class
  - AUDIO
  - VIDEO
  - TRANSCRIPTS
  - REMINDERS

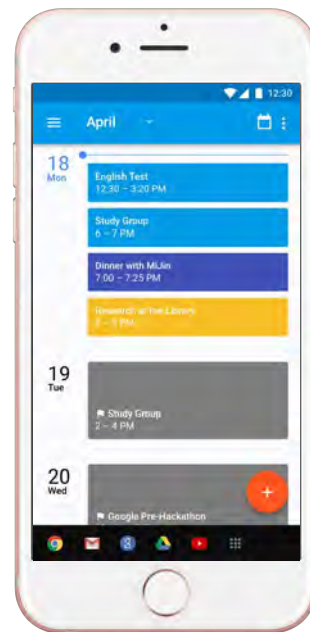
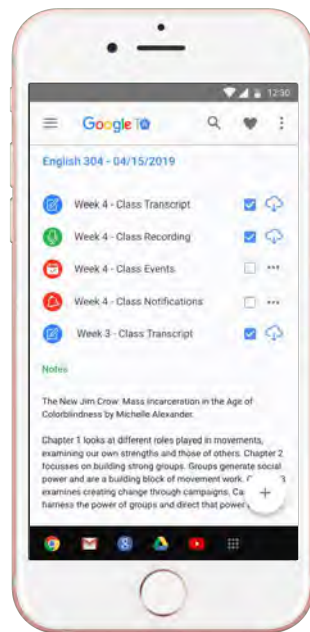
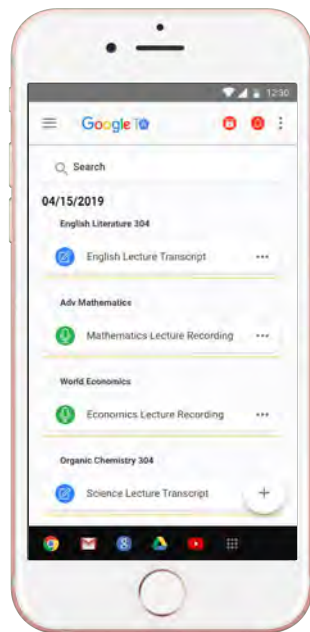
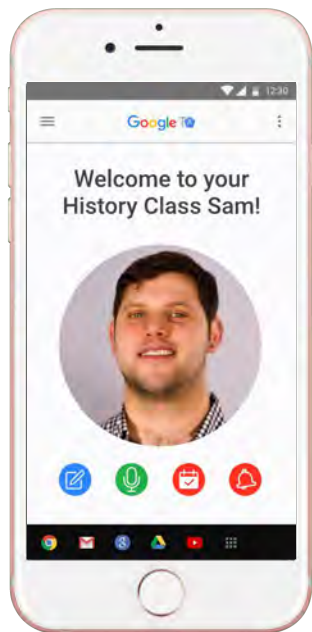
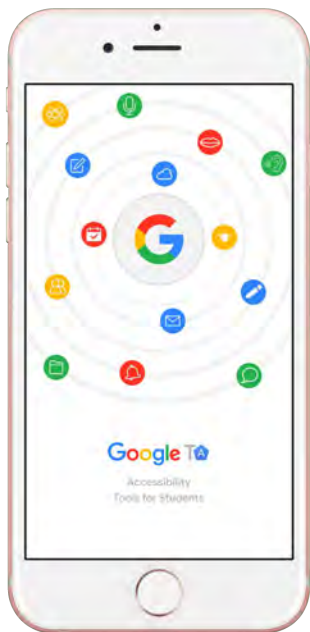
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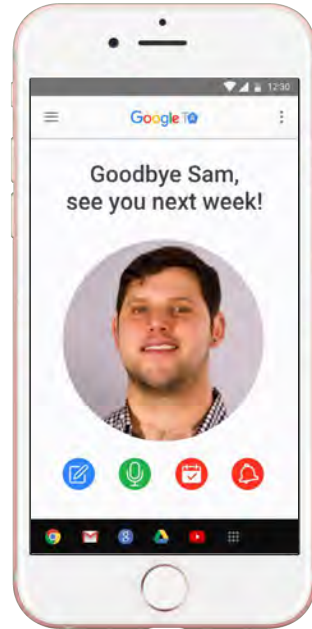
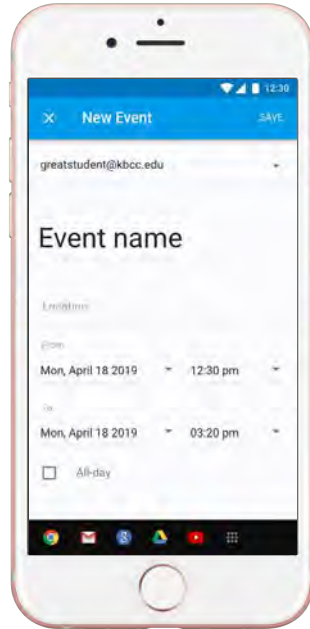
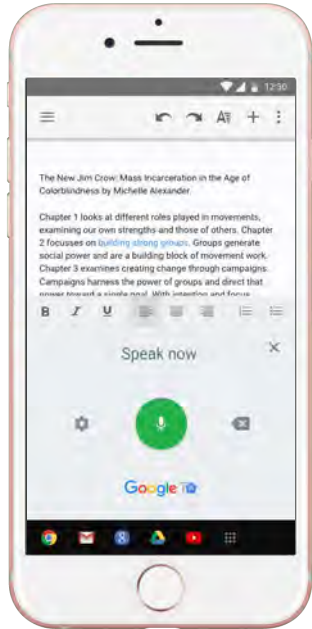
# The Internet of Things

Users will register their device on the first day of class

Student devices will pair with Google TA using a unique pin via bluetooth

After initial pairing of device only those devices will be able to sync with Google TA







Based on the technology already available, and our solution which has a very global reach, we know that this product can work for all students, especially those with disabilities





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# Thank You

Any Questions?