

- Student Assistant

“

*We used a Design Thinking approach  
and created a proto-persona*



# I am Sam Smith

I am here a student at UB,  
and here's my story



a little bit about me

- I am studying computer science
- Music club member
- Taking a lot of credits
- Trying to eat healthy

## Needs / Obstacles

- I need to track my diet  
//hard to do, don't have time
- Track finances  
//want to know my balance fast
- Need to organize  
//so many classes and club responsibilities
- Need reminders  
//forget about deadlines, due dates, to eat

“

*Based on this general student user, we have thought of a voice enabled assistant to help him*

## Some use cases

### **Shuttle Arrival**

Ask when is the next bus coming, and receive answer in minutes

### **Budget**

Ask “What’s my balance?”

ex. Receive “\$3,200 in your checking account”

### **Groceries**

Using wegmans api, create a shopping list, and answer total price

Using twilio api, text grocery list + price

### **Class Registration**

Ask “How many seats are left in CSE 396”

Receive answer “23 seats left”

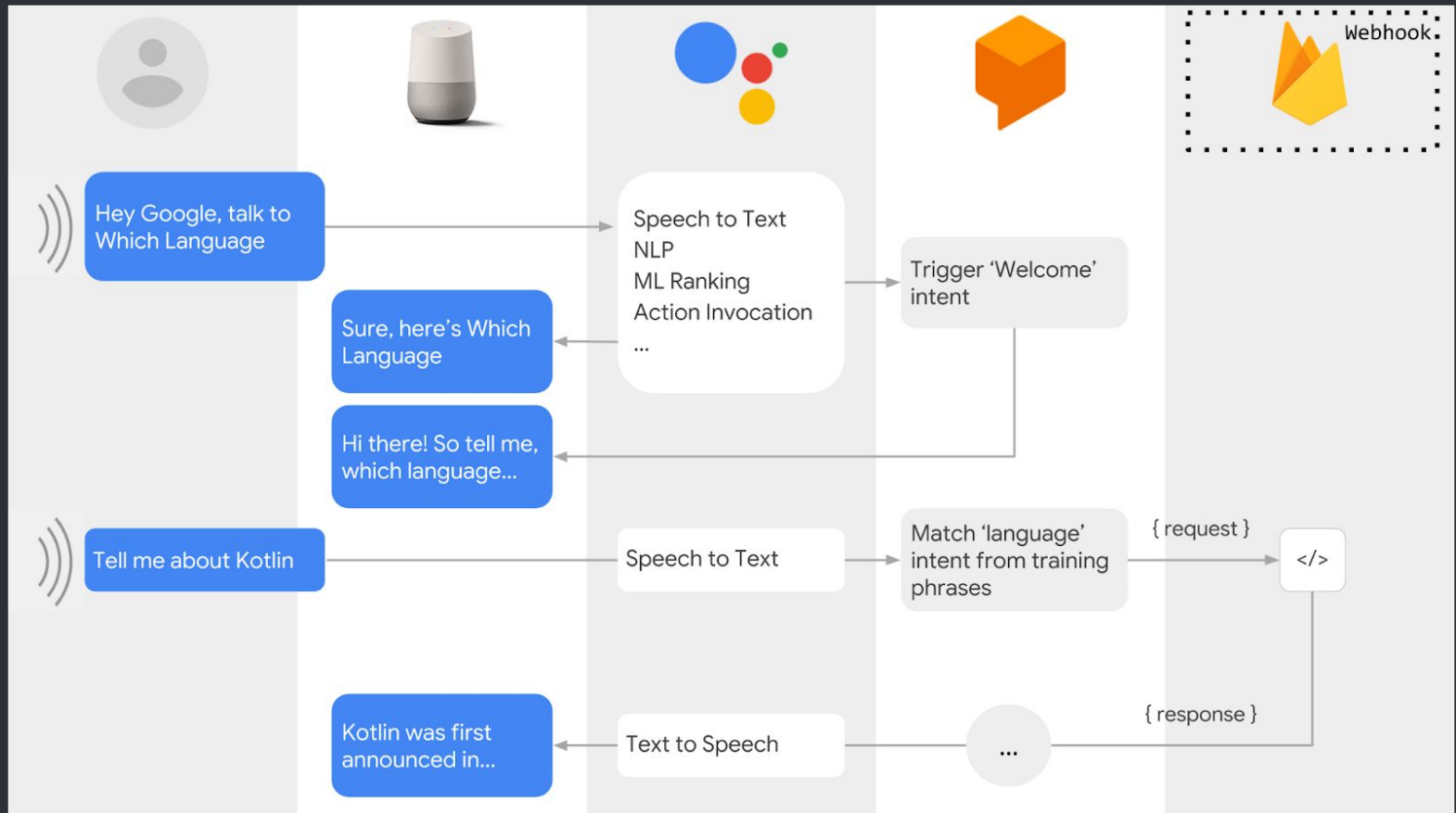


# Architecture

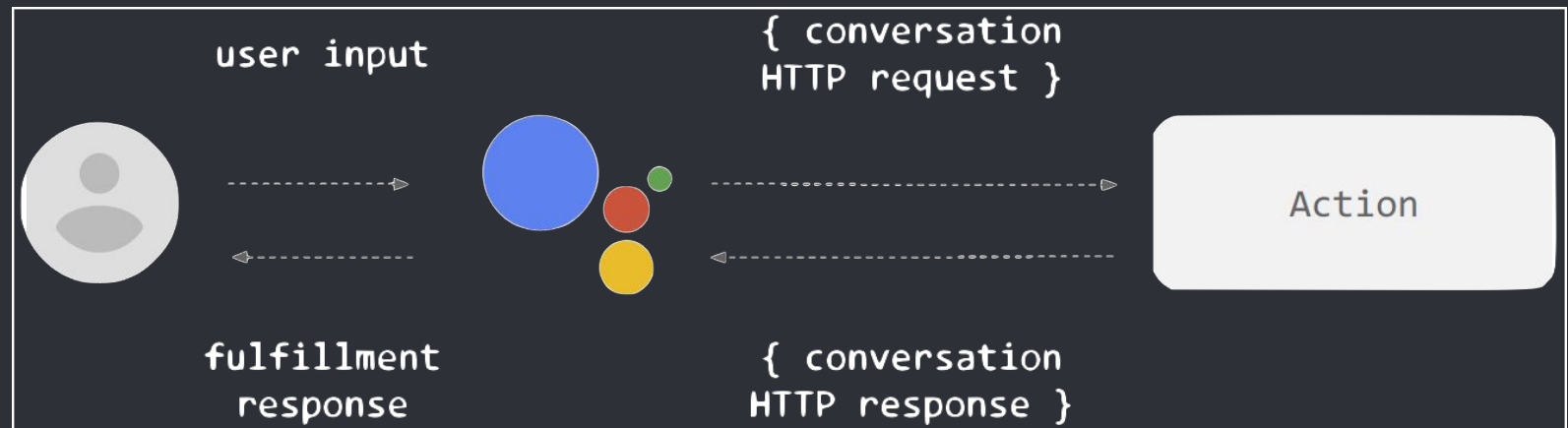


## ● Software Architecture Pattern

- Presentation Layer
  - Google Assistant Library
- Business Layer
  - Dialogue Flow
- Persistence Layer
  - Webhooks
- Abstraction Layer
  - Scripts, APIs



## Higher level architecture



## ○ Custom Actions using Google Dialogue Flow



# Tools

# BeautifulSoup



# Wegmans



Google Cloud Platform

Google Assistant, Wegmans, Twilio, beautiful soup

