

**MICHIGAN STATE**  
**UNIVERSITY**

# Alpha Presentation

## Digital Assistant and Personal Financial Coach

### The Capstone Experience

Team MSUFCU

Rachel Beard  
Michael Carter  
Patrick Dame  
Dane Holmberg  
Dallas Nowak



*From Students...*  
*...to Professionals*

Department of Computer Science and Engineering  
Michigan State University  
Spring 2018

# Project Overview

---

- Chatbot interface that can answer basic questions about a member's account
- Gives advice to members and can set goals for them
- Analyzes trends in member's spending habits
- Compares member's spending to other members in similar demographic

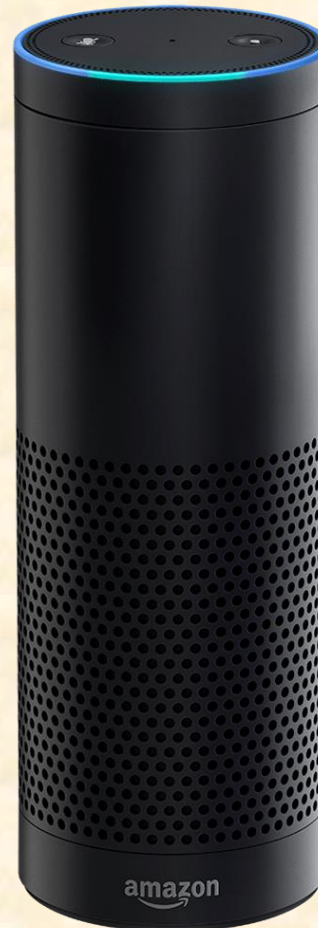
# System Architecture



# Amazon Alexa

Alexa, transfer \$500  
from my checking account.  
to another checking  
account.

6000.



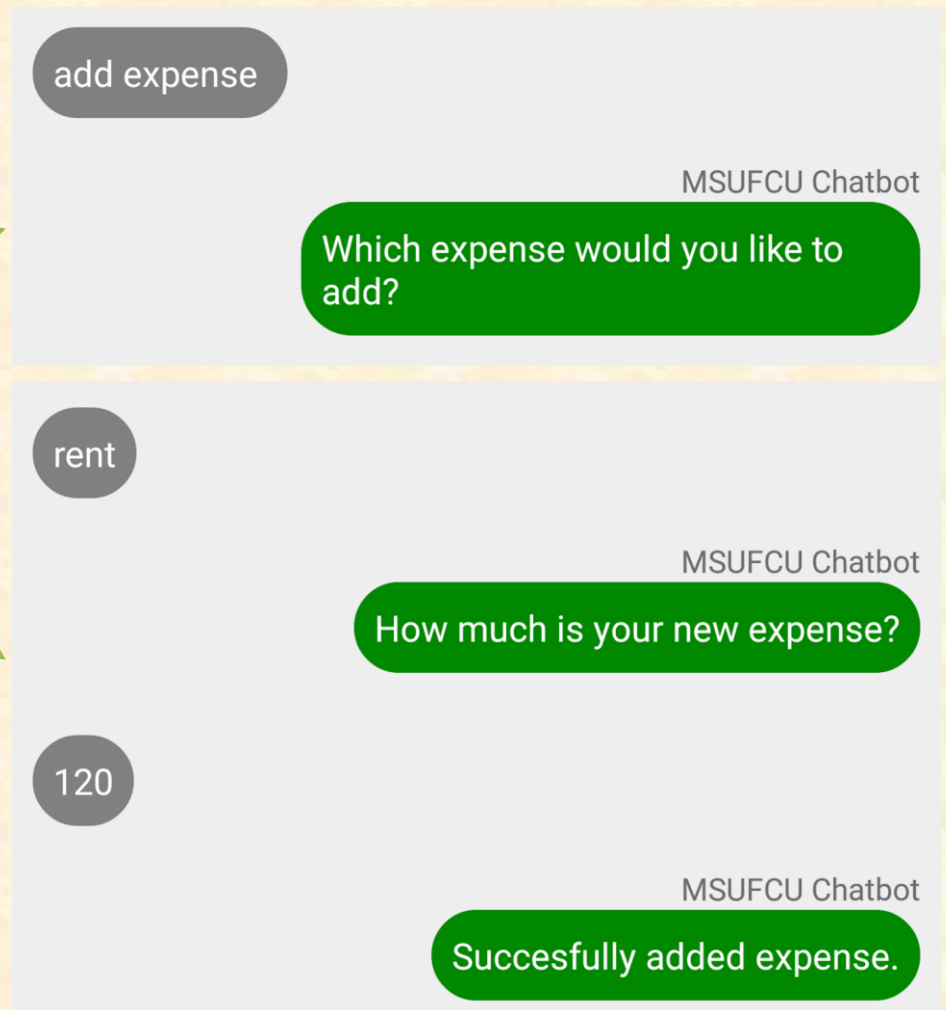
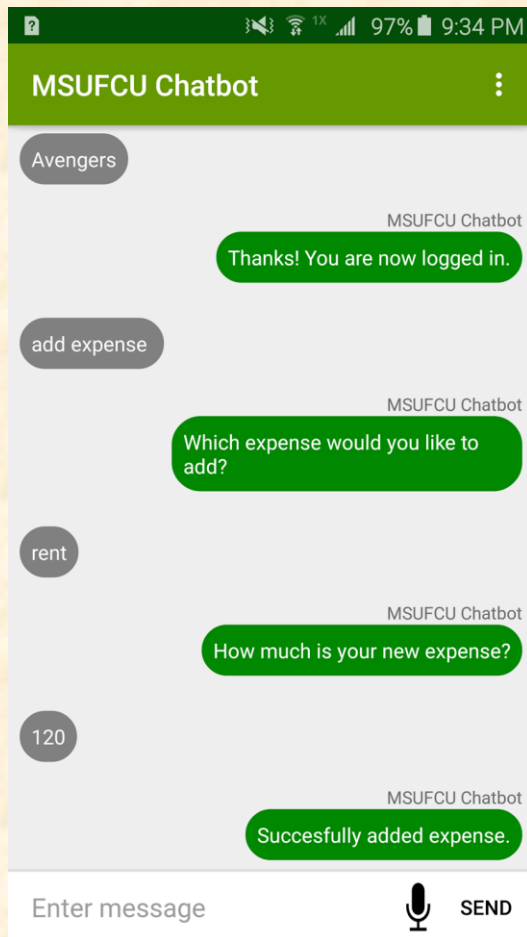
Welcome, Kathryn.  
How may I help you?

Please enter the  
account number of the  
account you would like  
to transfer to.

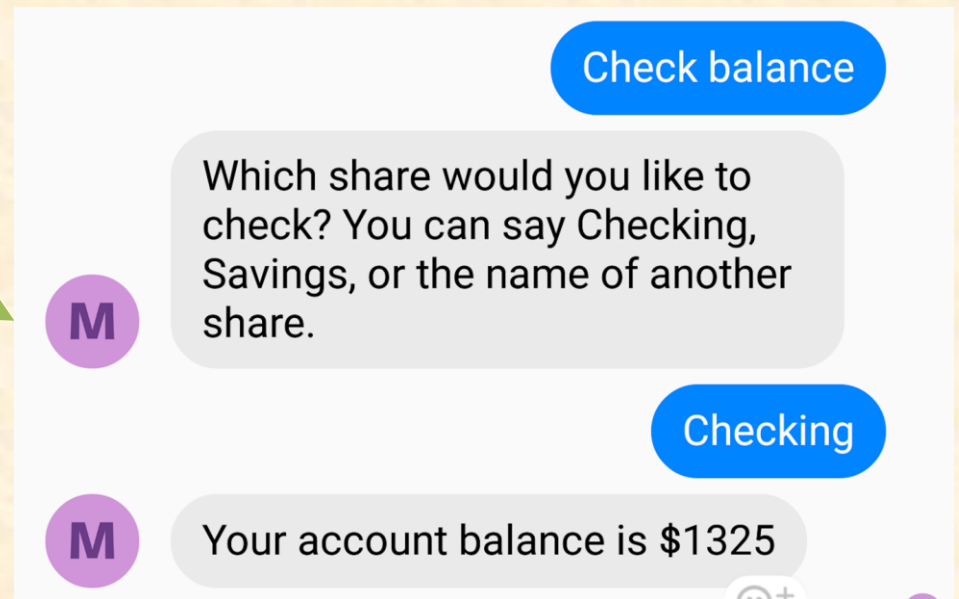
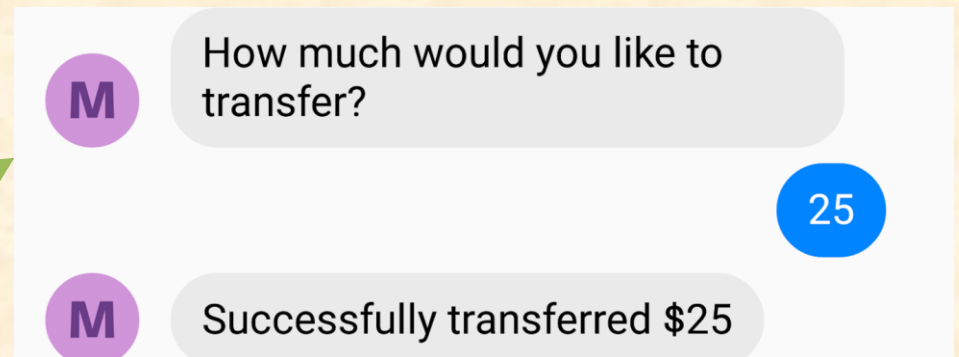
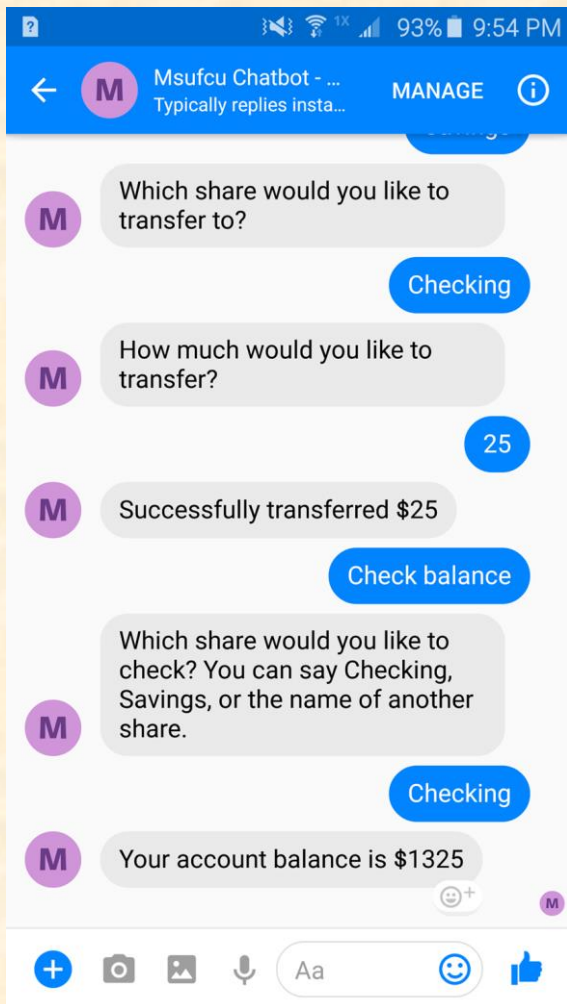
Please confirm  
transferring \$500 from  
your checking  
account.



# Android App Screenshot





# Facebook Messenger





# Website Chatbot

 **DigitalAssistant**  
Banking chatbot

POWERED BY  Dialogflow

check balance

Which share would you like to check? You can say Checking, Savings, or the name of another share.

checking

Your account balance is \$1325

can i afford a tv?

How much do you want to spend?

1500

No, you can not afford to spend \$1500

Ask something...

checking

Your account balance is \$1325

can i afford a tv?

How much do you want to spend?

1500

No, you can not afford to spend \$1500

# What's left to do?

- Financial planning services
  - Offer savings plans, financial advice, etc. to users
  - Will be added to “Afford” intent and in new intents
- Add more advanced intents
  - Basic interactions done, working on debugging them
  - Need intents that deal with more complex interactions/financial planning
- Expand machine learning
  - Develop algorithms to analyze expenses/incomes
  - Processing is done, but no conclusions drawn





# Questions?

---

?

?

?

?

?

?

?

?

?