



# Design Review I

## Team FitByte

Jake Farrar, Jacob Lemon, Austin Pederson

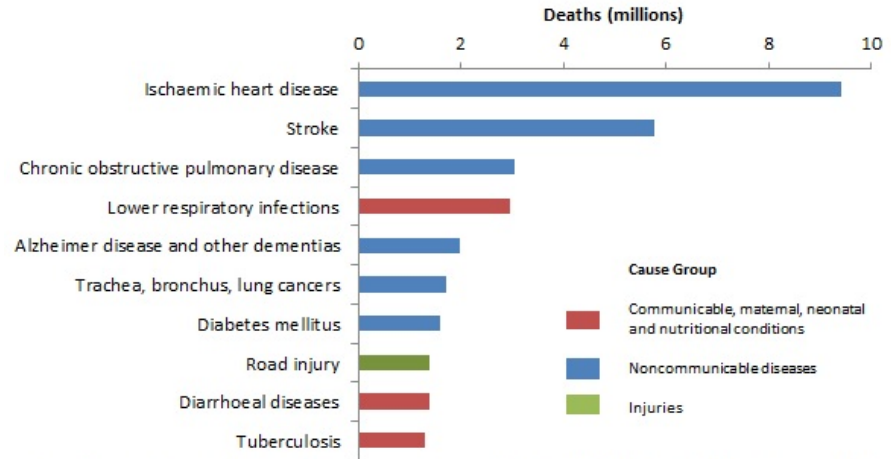
Sponsors: Dr. Kyle Winfree, Dr. Gregory Dominick  
Mentor: Ana Paula Chaves Steinmacher



# Bio-Behavioral System to Motivate and Reinforce Heart Health

- Heart Health
- Project Goals

Top 10 global causes of deaths, 2016



Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization; 2018.



**Fitbit**





## Sponsors



Dominick, UDel

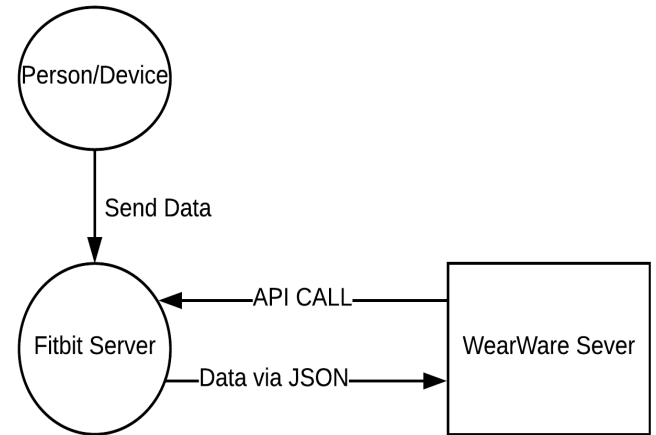
NAU



gory

## Currently Working Solution

- Developed by NAU employee, Mike Fell
- Problems with solution
  - Localized
  - Limited Analysis



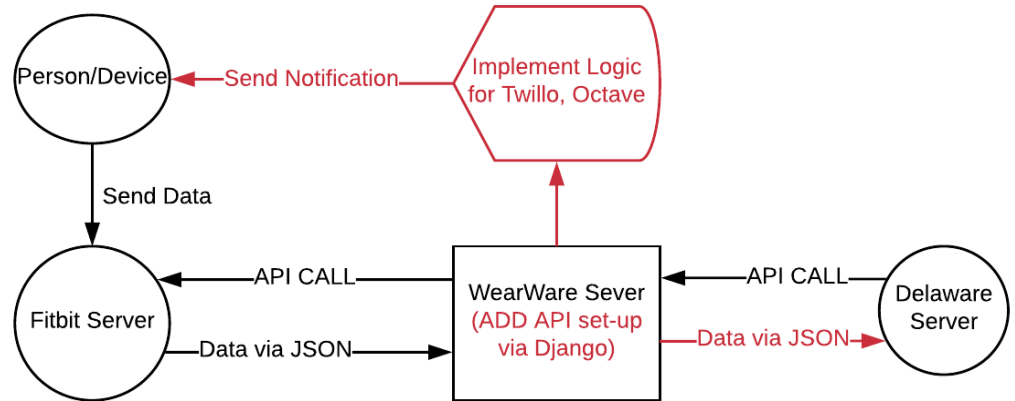


## Problems to solve

- Data collection for server in Delaware
- Performing real-time analysis
- Notification service
- UI improvements

# Solution

- API
  - MVP
- Analysis software used
- SMS messages





# High-Level Requirements

1. API
2. Security
3. Real-time analysis of data
4. SMS to participants to motivate
5. UI updates for WearWare





# Example Requirements for API

- API
  - Functional
    - Accessible via the internet
      - OAuth 2 for authorization
        - Returns error on invalid credentials
    - Returns a JSON file
      - Contains user-defined fields
      - Returns appropriate errors
        - Data not found error
        - Incorrect call error
  - Non-functional
    - Security
      - HTTPS enabled
      - Communication via POST only



# Environmental Requirements

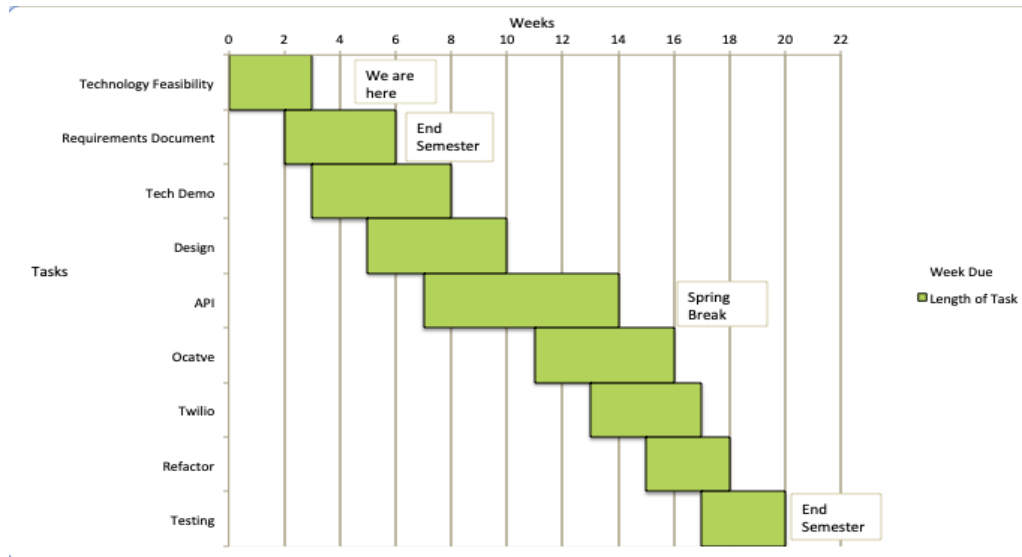
- Runs on AWS ec2 instance
- Costs



## Potential Risks

- More user data from moving from a couple tests participants to 40,000
  - Larger CSV's to work with and analyze
- Nailing down the details before finishing our contract

# Project Schedule





## Conclusion

- Our project allows researchers to remotely access data
- Continue to motivate clients being researched
- We are very excited and optimistic with the outcome of the project



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