MICHIGAN STATE
U N I V E R S I T Y

Project Plan
Change Management Software

The Capstone Experience

Team Google

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From Students…
…to Professionals

Project Overview

- Manages system downtime and changes
- Notifies users of downtimes and changes
- Built on Google software
- Replaces legacy system

Functional Specifications

- Change Request Creation/Editing

- Email Notifications

- Push to Helpdesk

- Save Capabilities

- API for Developer Use

- Templates

Design Specifications

- Users log in to service on web browser

- Create/edit/approve/view change requests from web browser

- View notifications via e-mail

Screen Mockup: Home Screen

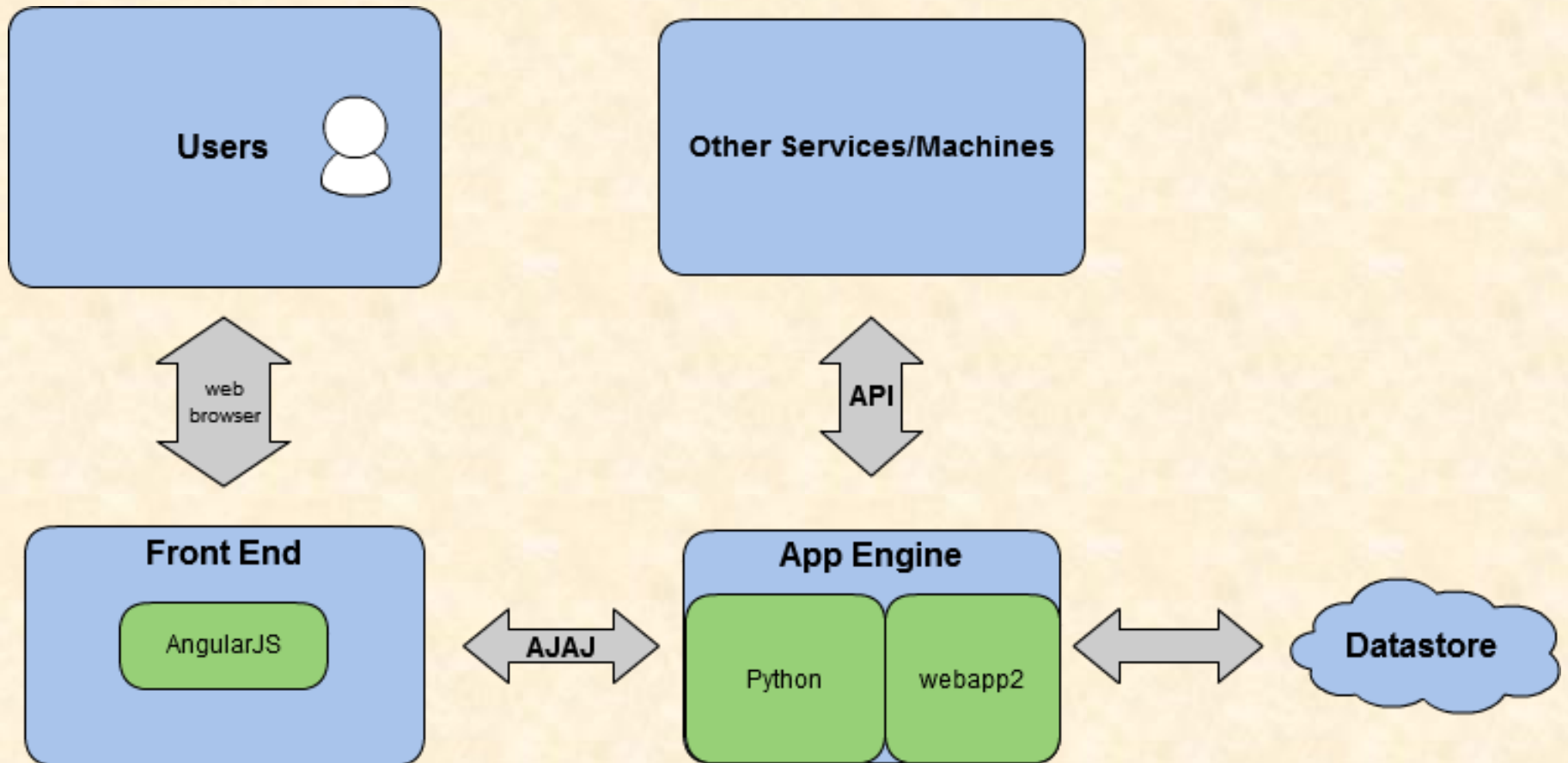# Screen Mockup: Change Request Form

Technical Specifications

- AngularJS to create frontend

- Python and webapp2 on Google App Engine for server-side operations

- Google App Engine Datastore to manage database

- HTTP based API to interact with our application

System Architecture

System Components

- Hardware Platforms
  - Lab Machines and Personal Computers
- Software Platforms / Technologies
  - GNU/Linux, Mac, Windows
  - AngularJS
  - Python, webapp2
  - Google App Engine, Data Store
  - HTML/CSS
  - HTTP

Testing

- Use AngularJS functions to test javascript code
- Creating our own change requests and emailing to ourselves
- Use old change requests given by client

Risks

- Load testing
    - We don't know how we are going to test our software's scalability
    - Panic/research AngularJS unit testing
- Connectivity between App Engine and Data Store
    - We've never worked with App Engine before and need to be able to use Data Store in App Engine
    - Set up simple app using database
- Need to make a data model
    - Data model is going to be used in a schemaless database
    - Create and test a bare-bones model of a change request
- Python and Web Development
    - Team members have very little experience in Python and Web Development
    - Do tutorials/learn them