

MICHIGAN STATE
UNIVERSITY

Project Plan

Change Management Software

The Capstone Experience

Team Google

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Spring 2014



*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

New Change Request

View My Requests

Starred Requests

Recent

Options ▾

🔍 Atlanta

<input type="checkbox"/>	Title	Technician	Date Submitted
<input type="checkbox"/>	Failover license services to Atlanta	antarus	2014/10/1
<input type="checkbox"/>	Failover license services to Atlanta	antarus	2014/10/1
<input type="checkbox"/>	Yet more happening in Atlanta	antarus	2014/10/1
<input type="checkbox"/>	Upgrading servers in Atlanta	antarus	2014/10/1
<input type="checkbox"/>	Something about Atlanta	antarus	2014/10/1



Screen Mockup: Change Request Form

You are currently logged in as: User [Logout](#)

Create a New Change Request

Summary

Description

Group

Locations Affected

Global	
North America	+
Asia	+

Note: Many other fields omitted.

Start Time

<	October							>
Su	Mo	Tu	We	Th	Fr	Sa		
1	2	3	4	5	6	7		
8	9	10	11	12	13	14		
15	16	17	18	19	20	21		
22	23	24	25	26	27	28		
29	30	31	1	2	3	4		

End Time

<	October							>
Su	Mo	Tu	We	Th	Fr	Sa		
1	2	3	4	5	6	7		
8	9	10	11	12	13	14		
15	16	17	18	19	20	21		
22	23	24	25	26	27	28		
29	30	31	1	2	3	4		

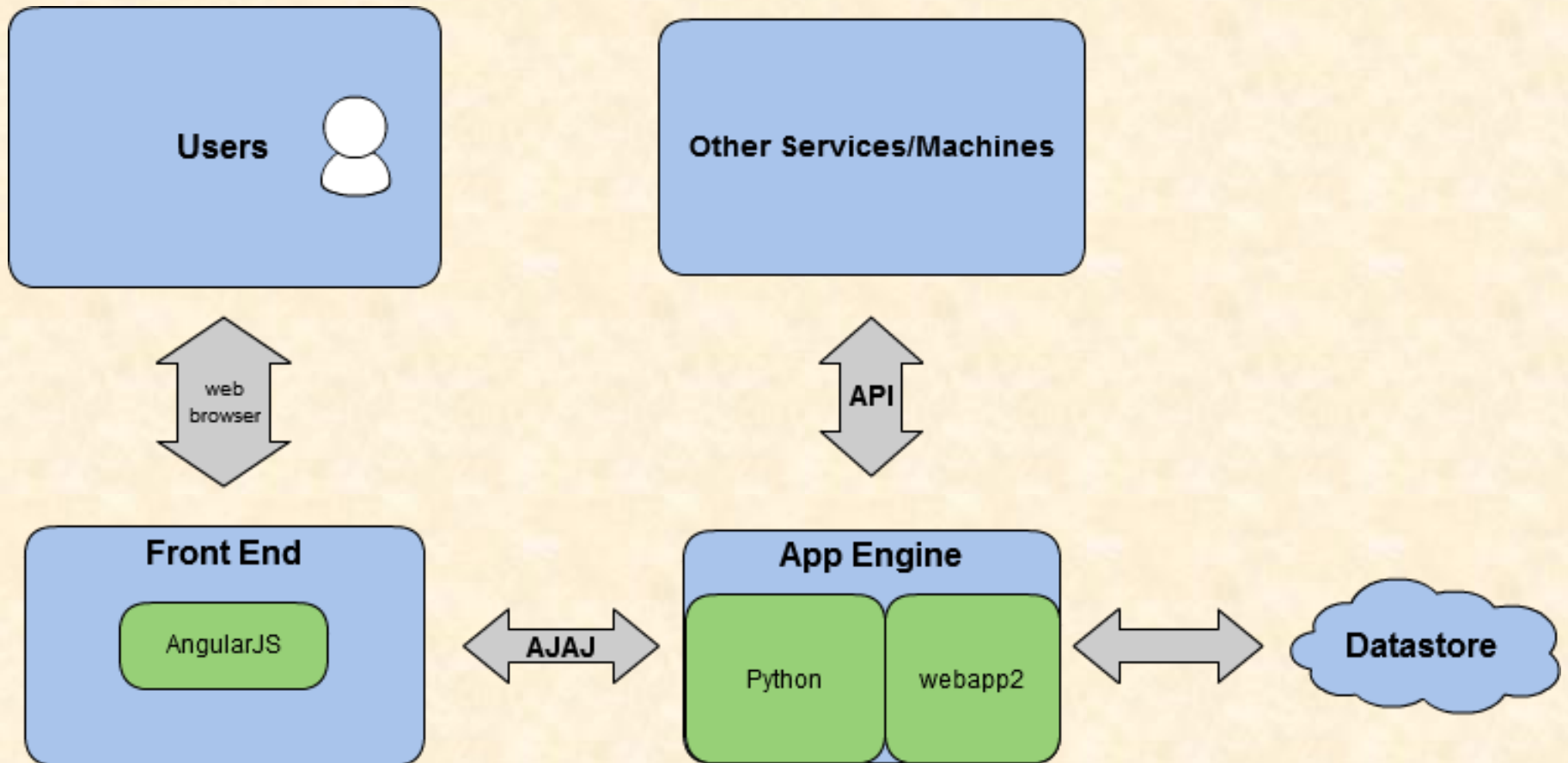


Technical Specifications

- 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

