

# Life Cycle Plan (LCP)

**Discovery Tool**

**Team 3**

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**12/02/18**

## Version History

Date	Author	Version	Changes made	Rationale
10/16/18	XD	1.0	section 1-5, 6.1	Initial draft for Discovery Tool LCP of DC package
10/21/18	XD	1.1	Small fix in section 5	Redo COCOMOII estimation
11/22/18	XD	2.0	Updated section 6.1	Revised per client meeting and CCD feedback
12/02/18	XD	2.1	Update section 6.2	Completed section 6.2 after more dev increments occurred

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# 1. Introduction

## 1.1 Purpose of the LCP

The purpose of this LCP is to document and manage the lifecycle of the Discovery Tool (an idea management system). The LCP artifact is designed to provide descriptions of deliverables, define workflow, identify individual and team responsibility, and track progress over each iteration of the project.

## 1.2 Status of the LCP

The status of the LCP is currently at the development commitment package version 2.0. This is the revised version after DCC.

## 1.3 Assumptions

- The duration of this project is 12 weeks in Fall 2018 semester
- The team will be using 8 individuals, 6 being on-campus students, and 2 being remote DEN students
- The plan is tracked and strictly following MS project
- The project is one-semester only
- The project can repivot once at most
- The client will provide responsive feedback

# 2. Milestones and Products

## 2.1 Overall Strategy

The Discovery Tool idea management system is following the strategy of ICSM NDI/NCS because the system is aimed to be a cloud based web application and it heavily relies on technology such as React, python Flask, JWT, Webpack, Heroku, Swagger UI, Creative TIM, material, mlab and AWS EC2.

### Exploration Phase I

**Duration:** 9/3/18 - 9/23/18

**Concept:** Identify operational concept, system and software requirements and life cycle plan for the next phase

**Deliverables:** Client Meeting notes, Progress Report, Project plan, use cases, team website

**Milestone:** Valuation Commitment Review

**Strategy:** One Incremental Commitment Cycle, Win-Win negotiation session #1

### Valuation Phase I

**Duration:** 9/21/18 - 9/23/18

**Concept:** Monitor risks, prioritize requirements, validate crawling based trend identifier, validate API based trend identifier

**Deliverables:** Win-Win condition report, prototype presentation

**Milestone:** Foundation Commitment Review

**Strategy:** One incremental Commitment Cycle, Win-Win negotiation session #2, planning poker, risk analysis assessment

### **Foundations Phase I**

**Duration:** 9/24/18 - 9/28/18

**Concept:** Project requirements, Project plan, develop prototype, design preliminary software architecture, investigate API availability

**Deliverables:** None

**Milestone:** None

**Strategy:** One incremental Commitment Cycle

### **Exploration Phase II**

**Duration:** 10/2/18 - 10/17/18

**Concept:** Identify operational concept of the new client proposal, system and software requirements and life cycle plan for the next phase, new Win-win conditions

**Deliverables:** Client Meeting notes, Progress Report, Project plan

**Milestone:** Content manager meeting

**Strategy:** One Incremental Commitment Cycle, Content manager meeting

### **Valuation Phase II**

**Duration:** 10/10/18 - 10/22/18

**Concept:** Develop frontend UI prototype, develop backend data endpoint prototype, monitor risks, prioritize requirements

**Deliverables:** updated use cases, updated win-win agreement

**Milestone:** None

**Strategy:** One incremental Commitment Cycle, risk analysis assessment

### **Foundations Phase II**

**Duration:** 10/10/18 - 10/22/18

**Concept:** Implement ARB deliverables, develop DC package, Project requirements, Project plan, continue to develop prototype, design preliminary software architecture

**Deliverables:** DC package

**Milestone:** DC ARB presentation

**Strategy:** One Incremental Commitment Cycle

### **Development Phase**

**Duration:** 10/23/18 - 11/28/18

**Concept:** Develop core capability, implement the full system with agreed features, perform test, and implement documentation

**Deliverables:** Project archive, Core capability report

**Milestone:** Core capability presentation, Transition Readiness Review

**Strategy:** One Incremental Commitment Cycle, development, test, deployment

## 2.2 Project Deliverables

### 2.2.1 Exploration Phase

Artifact	Due date	Format	Medium
Jira Weekly Survey	Weekly Monday	Jira ticket	Google survey
Team website	9/12/18	Website	Website
Project Plan	Bi-weekly Wednesday	.mpp .pdf	Team site
Risk and Defects Report	Bi-weekly Wednesday	.pdf	Team site
Progress Report	Bi-weekly Wednesday	.pdf	Team site

Table 1: Artifacts Deliverables in Exploration Phase

### 2.2.2 Valuation Phase

Artifact	Due date	Format	Medium
Jira Weekly Survey	Weekly Monday	Jira ticket	Google survey
Project Plan	Bi-weekly Wednesday	.mpp .pdf	Team site
Risk and Defects Report	Bi-weekly Wednesday	.pdf	Team site
Progress Report	Bi-weekly Wednesday	.pdf	Team site
Prototype Presentation	9/28/18	.pdf	Team site

Table 2: Artifact deliverable in Valuation Phase

### 2.2.3 Foundations Phase

Artifact	Due date	Format	Medium
Jira Weekly Survey	Weekly Monday	Jira ticket	Google survey
Project Plan	Bi-weekly Wednesday	.mpp .pdf	Team site
Risk and Defects Report	Bi-weekly Wednesday	.pdf	Team site
Progress Report	Bi-weekly Wednesday	.pdf	Team site
DC package: <ul style="list-style-type: none"> <li>• FED</li> <li>• LCP</li> <li>• SSAD</li> <li>• TPC</li> <li>• PRO</li> <li>• OCD</li> </ul>	10/22/18	.pdf	Team site
Prototype	10/17/18	Source code	github

Table 3: Artifact deliverable in Foundations Phase

### 2.2.4 Development Phase

Artifact	Due date	Format	Medium
Jira Weekly Survey	Weekly Monday	Jira ticket	Google survey
Project Plan	Bi-weekly Wednesday	.mpp .pdf	Team site
Risk and Defects Report	Bi-weekly Wednesday	.pdf	Team site
Progress Report	Bi-weekly Wednesday	.pdf	Team site
Technical Debt Report	Bi-weekly Friday	.pdf	Team site



CCD Report	11/20/18	.pdf	Team site
TRR Report	11/28/18	.pdf	Team site
Functional system	11/28/18	Functional web app	AWS, github
Documentation	11/30/18	Swagger UI rendered doc, .pdf	Github, Team site

Table 4: Artifact deliverable in Development Phase

### 3. Responsibilities

#### 3.1 Project-specific stakeholders' responsibilities

Other than the stakeholders identified for Discovery Tool so far, which are the client and dev team, we have no any project-specific stakeholders.

#### 3.2 Responsibilities by Phase

Primary / Secondary Responsibility					
Team Member / Role	Exploration	Valuation	Foundations	Development-Construction Iteration	Development-Transition Iteration
<b>Name:</b> Joshua Bendig <b>Role:</b> IIV&V, Requirement Engineer	<b>Pri. Res:</b> Participate in Win-win negotiation  <b>Sec.Res:</b> Implement system requirements	<b>Pri. Res:</b> Refine system requirements  <b>Sec.Res:</b> Review Jira ticket	<b>Pri. Res:</b> Track and update system requirements, maintain diagrams for documentation  <b>Sec.Res:</b> Review Jira ticket	<b>Pri. Res:</b> Validate all system features against system requirement  <b>Sec.Res:</b> Review Jira ticket	<b>Pri. Res:</b> Continue validating all system features against system requirement, review documentation  <b>Sec.Res:</b> Review Jira ticket
<b>Name:</b> Xizhao Deng	<b>Pri. Res:</b> Establish	<b>Pri. Res:</b> Facilitate	<b>Pri. Res:</b> Create and	<b>Pri. Res:</b> Create and	<b>Pri. Res:</b> Facilitate

<b>Role:</b> Project Manager, Life Cycle Planner	recurring comms with client and team, set up recurring team meetings  <b>Sec.Res:</b> Assign roles, make project plan	client interaction and follow up after Win-win sessions, create action items, host weekly team meeting  <b>Sec.Res:</b> Update project progress, assign Jira ticket to team members	follow up action items, conduct prototype presentation  <b>Sec.Res:</b> Update project progress, plan for risk mitigation, assign Jira ticket to team members	follow up action items, facilitate client communication, documentation  <b>Sec.Res:</b> Assign Jira ticket to team members, plan for risk mitigation and identify technical debt	handoff to the client  <b>Sec.Res:</b> Assign Jira ticket to team members, plan for risk mitigation and identify technical debt
<b>Name:</b> Jingzhou Hong <b>Role:</b> Requirements Engineer, Prototyper	<b>Pri. Res:</b> Implement system requirements, Participate in Win-win negotiation  <b>Sec.Res:</b> Research potential technology	<b>Pri. Res:</b> Refine system requirements  <b>Sec.Res:</b> Develop prototype	<b>Pri. Res:</b> Develop FED for DC package, refine system requirements  <b>Sec.Res:</b> Continue working on prototype	<b>Pri. Res:</b> Verify if system requirement, win-win conditions are fully satisfied  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Final Review against system requirement  <b>Sec.Res:</b> Review documentation
<b>Name:</b> Guancheng Liu <b>Role:</b> Tester, Quality Engineer	<b>Pri. Res:</b> Participate in Win-win negotiation  <b>Sec.Res:</b> Research potential technology	<b>Pri. Res:</b> Design test plans  <b>Sec.Res:</b> Develop prototype	<b>Pri. Res:</b> Implement TCP/QFP for DC package  <b>Sec.Res:</b> Implement backend and database	<b>Pri. Res:</b> Implement test cases, conduct software testing, fix defects  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Continue software testing, conduct quality assurance review  <b>Sec.Res:</b> Documentation
<b>Name:</b> Michael Russo <b>Role:</b> Prototyper, Software Architect	<b>Pri. Res:</b> Participate in Win-win negotiation, implement team website  <b>Sec.Res:</b> Research	<b>Pri. Res:</b> Develop prototype  <b>Sec.Res:</b> Facilitate designing software architecture	<b>Pri. Res:</b> Implement slide deck for ARB presentation, implement frontend UI  <b>Sec.Res:</b>	<b>Pri. Res:</b> Implement frontend UI, integration  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Improve UI and UX  <b>Sec.Res:</b> Documentation

	potential technology		Documentation , refine software architect		
<b>Name:</b> Shenghao Tang <b>Role:</b> Feasibility Analyst, System Architect	<b>Pri. Res:</b> Participate in Win-win negotiation, implement system architecture, conduct feasibility analysis  <b>Sec.Res:</b> Research potential technology	<b>Pri. Res:</b> Analyze and prioritize capabilities to prototype  <b>Sec.Res:</b> Facilitate designing system architecture	<b>Pri. Res:</b> Develop prototype  <b>Sec.Res:</b> Implement FED for DC package	<b>Pri. Res:</b> Develop backend, integration  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Integration, fix defects  <b>Sec.Res:</b> Documentation
<b>Name:</b> Fan Zhang <b>Role:</b> Software Architect, Project Manager	<b>Pri. Res:</b> Participate in Win-win negotiation, implement software architecture  <b>Sec.Res:</b> Research potential technology	<b>Pri. Res:</b> Design software architect  <b>Sec.Res:</b> Facilitate project management and planning	<b>Pri. Res:</b> Implement TCP/QFP for DC package  <b>Sec.Res:</b> making ARB presentation slide deck	<b>Pri. Res:</b> Implement backend, integration  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Integration, fix defects  <b>Sec.Res:</b> Documentation
<b>Name:</b> Yiming Zhang <b>Role:</b> System Architect, Prototyper	<b>Pri. Res:</b> Participate in Win-win negotiation, design system architecture  <b>Sec.Res:</b> Research potential technology	<b>Pri. Res:</b> Design the system architecture  <b>Sec.Res:</b> Implement prototype for prototype presentation	<b>Pri. Res:</b> Implement PRO for DC package  <b>Sec.Res:</b> Implement frontend UI prototype	<b>Pri. Res:</b> Implement frontend UI  <b>Sec.Res:</b> Documentation	<b>Pri. Res:</b> Integration, fix defects  <b>Sec.Res:</b> Documentation
<b>Name:</b> Linda Suen <b>Role:</b> Client	<b>Pri. Res:</b> Explain the project deliverables,	<b>Pri. Res:</b> Define system requirements, review initial	<b>Pri. Res:</b> Review ARB deliverables, attend client	<b>Pri. Res:</b> Review progress, attend client	<b>Pri. Res:</b> Review documentation , assist the

	discuss the Win-win conditions, review use cases, attend client meeting	prototypes, attend client meeting	meeting	meeting	handoff
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Table 5: Stakeholders' Responsibilities in each phase

### 3.3 Skills

Team members	Role	Skills
Joshua Bendig	IIV&V, Requirements Engineer	<b>Current Skill:</b> Java, Python, embedded development, software testing, technical writing, UML diagram <b>Required Skill:</b> Web development, React
Xizhao Deng	Project Manager, Life Cycle Planner	<b>Current Skill:</b> Python, C, C++, embedded development, technical writing, MS Project <b>Required Skill:</b> Web development, React, high level program management
Jingzhou Hong	Requirements Engineer, Prototyper	<b>Current Skill:</b> Python, HTML, web development, database, Javascript <b>Required Skill:</b> technical writing
Guancheng Liu	Tester, Quality Engineer	<b>Current Skill:</b> Python, database, MongoDB, Java, React <b>Required Skill:</b> Software Testing, Crucible
Michael Russo	Prototyper, Software Architect	<b>Current Skill:</b> Flask, React, Node.JS, AWS, MongoDB, UML diagram, HTML, CSS, UI design, mLab, Swagger UI <b>Required Skill:</b> Crucible

Shenghao Tang	Feasibility Analyst, System Architect	<b>Current Skill:</b> Python, MongoDB, UML diagram, React <b>Required Skill:</b> Technical writing
Fan Zhang	Software Architect, Project Manager	<b>Current Skill:</b> Flask, MongoDB, AWS, React <b>Required Skill:</b> High level development
Yiming Zhang	System Architect, Prototyper	<b>Current Skill:</b> Flask, React, Node.JS, AWS, MongoDB, UML diagram, HTML, CSS, UI design, Material, AWS <b>Required Skill:</b> Technical writing

Table 6: Team skill table

## 4. Approach

### 4.1 Monitoring and Control

We monitor and control our project by the following approach:

- Project Plan: constantly update project plan (for the next 2 weeks or further ahead) in MS project and make sure the team stick to the plans.
- Bi-weekly Progress Report: Track the progress of the project, list third-party components, and SLOC
- Bi-weekly Risk and Defect Report: Analyze top risks, defects, and come up with mitigation plan
- Bi-weekly Technical Debt Report: Identify technical debt, their lifespan, and mitigation plan
- Jira: track issue, log work, assign tasks
- Win book: catch requirements and priority, maintain design consistency
- Weekly Team Meeting: update the team with plans, report progress, issues, concerns, and come up with mitigation plan
- Client Meeting: maintain responsive communication with the client for progress, issues, and concerns

#### 4.1.1 Closed Loop Feedback Control

- Slack: The dev team created group chat in Slack to discuss project, check progress, and talk to the client.
- Google Drive: Share files and documents among the team and the client
- Github: For version control repo hosting, and issue tracking
- Jira: Assign tasks to team member, check progress, and log work.

- Skype: Host team meetings

#### 4.1.2 Reviews

- Peer Review: cross review code increments, and documentations
- Client Review: frequent client review over use cases, win-win conditions, and progress
- ARB: scheduled on 10/17 to go over architecture review and DC package
- CCD and TRR: TBD

### 4.2 Methods, Tools and Facilities

Tools	Usage	Provider
Github	Source Code Version Control	Github
MagicDraw	UML diagram / workflow making	No Magic
Skype	Team meeting hosting	Microsoft
Slack	Team group chat	Slack Tech
Winbook	Win condition capture and priority identification	CS577A
COCOMO II	Software cost estimation	CS577A
MS Project	Project plan and life cycle planning	USC
Jira	Log work effort, assign task	USC

Table 7: Tool table

## 5. Resources

Below is the required information in order to estimate the software cost:

- Estimated CSCI577a Effort : 8 team members at 18 hrs/week for 12 weeks
- Total estimated effort: 18 hrs/week x 8 members x 12 weeks = 1728 hours
- Budget information: reasonable spendings will be reimbursed by client

- Project duration: 12 weeks
- Component modules in your development project: User/team Module, Content Module, Goal Module, Authentication Module
- Programming language used: Javascript, Python, HTML, CSS

Scale Driver	Value	Rationale
Precedentedness	Nominal	No existing system available but the new system will mimic current workflow being practiced. Certain level of reference does exist
Development Flexibility	Nominal	Client expects the system to mimic current workflow with small tweaks and improvement
Architecture / risk resolution	Nominal	Most risks can be mitigated by more client interaction and dev team time investment
Team cohesion	Very High	Team communication and interaction occur in a responsive and timely manner
Process maturity	Nominal	Team is comfortable and consistent with ICSM guidelines

Table 8: COCOMOII Scale Driver

Cost Driver	Value	Rationale
RELY	High	Authentication is required for the system to be successful
DATA	Nominal	The user information data size is fairly low, but it may grow based on team size scaling
DOCU	Nominal	Documentation will be required for user guidance and maintenance purpose
CPLX	Nominal	Authentication can be implemented by utilizing off-the-shelf framework and tools
RUSE	Low	Authentication will be purposely build for this system, no plan for reuse at the moment
TIME	Nominal	Authentication will be executed at the beginning and the end of the user session. It does not consume significant execution time resource

STOR	Nominal	User information does not utilize significant amount of storage
PVOL	Low	The cloud service which the web app utilizes is expected to be stable for majority of the time
ACAP	Nominal	The analyst personnel has nominal experience, both academically and industrially, for the task of requirement implementation and design implementation
PCAP	High	The developers have related academic and work experience and are determined to be highly capable
PCON	Very High	The staff turnover rate of the dev team is low within this semester
APEX	High	Developers have moderate to rich experience with web application development
LTEX	High	Developers are comfortable with the technologies chosen for this project
PLEX	Nominal	Developers have moderate experience with the cloud service for hosting the web app and database
TOOL	Nominal	Moderate integration may be necessary for the chosen technologies
SITE	Extra High	The team has very responsive and interactive communication/workflow between on-campus and remote members

Table 9: COCOMOII Cost Driver - Authentication Module

Cost Driver	Value	Rationale
RELY	High	Content is required for the system to be successful
DATA	High	The content data size is high considering amount of content generated in a unit period of time
DOCU	Nominal	Documentation will be required for user guidance and maintenance purpose
CPLX	High	The subsystem needs to be built from scratch



RUSE	Low	Content will be purposely build for this system, no plan for reuse at the moment
TIME	Very High	Content operations take significant execution time in client's workflow
STOR	High	Content utilizes significant amount of storage
PVOL	Low	The cloud service which the web app utilizes is expected to be stable for majority of the time
ACAP	Nominal	The analyst personnel has nominal experience, both academically and industrially, for the task of requirement implementation and design implementation
PCAP	High	The developers have related academic and work experience and are determined to be highly capable
PCON	Very High	The staff turnover rate of the dev team is low within this semester
APEX	High	Developers have moderate to rich experience with web application development
LTEX	High	Developers are comfortable with the technologies chosen for this project
PLEX	Nominal	Developers have moderate experience with the cloud service for hosting the web app and database
TOOL	Nominal	Moderate integration may be necessary for the chosen technologies
SITE	Extra High	The team has very responsive and interactive communication/workflow between on-campus and remote members

Table 10: COCOMOII Cost Driver - Content Module

Cost Driver	Value	Rationale
RELY	High	Goal is required for the system to be successful
DATA	Nominal	The goal data size is moderate considering amount of goal generated in a unit period of time

DOCU	Nominal	Documentation will be required for user guidance and maintenance purpose
CPLX	Nominal	The subsystem needs to be built from scratch with moderate complexity
RUSE	Low	Goal will be purposely build for this system, no plan for reuse at the moment
TIME	High	Goal operations take significant execution time in client's workflow
STOR	High	Goal utilizes significant amount of storage
PVOL	Low	The cloud service which the web app utilizes is expected to be stable for majority of the time
ACAP	Nominal	The analyst personnel has nominal experience, both academically and industrially, for the task of requirement implementation and design implementation
PCAP	High	The developers have related academic and work experience and are determined to be highly capable
PCON	Very High	The staff turnover rate of the dev team is low within this semester
APEX	High	Developers have moderate to rich experience with web application development
LTEX	High	Developers are comfortable with the technologies chosen for this project
PLEX	Nominal	Developers have moderate experience with the cloud service for hosting the web app and database
TOOL	Nominal	Moderate integration may be necessary for the chosen technologies
SITE	Extra High	The team has very responsive and interactive communication/workflow between on-campus and remote members

Table 11: COCOMOII Cost Driver - Goal Module

Cost Driver	Value	Rationale
RELY	High	Team/User management is required for the system to be successful
DATA	Nominal	The team/user data size is moderate considering the current team size and potential growth in team size in the future
DOCU	Nominal	Documentation will be required for user guidance and maintenance purpose
CPLX	Nominal	The subsystem needs to be built from scratch
RUSE	Low	Team/user management will be purposely build for this system, no plan for reuse at the moment
TIME	High	Team/user management operations take significant execution time in client's workflow
STOR	High	Team/user data utilizes significant amount of storage
PVOL	Low	The cloud service which the web app utilizes is expected to be stable for majority of the time
ACAP	Nominal	The analyst personnel has nominal experience, both academically and industrially, for the task of requirement implementation and design implementation
PCAP	High	The developers have related academic and work experience and are determined to be highly capable
PCON	Very High	The staff turnover rate of the dev team is low within this semester
APEX	High	Developers have moderate to rich experience with web application development
LTEX	High	Developers are comfortable with the technologies chosen for this project
PLEX	Nominal	Developers have moderate experience with the cloud service for hosting the web app and database
TOOL	Nominal	Moderate integration may be necessary for the chosen technologies

SITE	Extra High	The team has very responsive and interactive communication/workflow between on-campus and remote members
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Table 12: COCOMOII Cost Driver - Team/User Module

Scale Factors

	base	Incr%
Precedentedness .....	NOM	0%
Development Flexibility .....	NOM	0%
Architecture / risk resolution	NOM	0%
Team cohesion .....	VHI	0%
Process maturity .....	NOM	0%

Scale Factor : 16.78

OK Cancel Help

Figure 1: COCOMOII Scale Factor screenshot

EAF - Authentication

base + Incr % = rating

Product:	RELY	DATA	DOCU	CPLX	RUSE	
base	HI	NOM	NOM	NOM	LO	
Incr%	0%	0%	0%	0%	0%	
Platform:	TIME	STOR	EVOL			
base	NOM	NOM	LO			
Incr%	0%	0%	0%			
Personnel:	ACAP	PCAP	PCON	APEX	LTEX	PLEX
base	NOM	HI	VHI	HI	HI	NOM
Incr%	0%	0%	0%	0%	0%	0%
Project:	TOOL	SITE				
base	NOM	XHI				
Incr%	0%	0%				
User:	USR1	USR2				
base	NOM	NOM				
Incr%	0%	0%				

EAF is also affected by Schedule

EAF: 0.42

OK Cancel Help

Figure 2: COCOMOII Cost Driver Authentication Module screenshot

EAF - Content

base + Incr % = rating

Product:	RELY	DATA	DOCU	CPLX	RUSE
base	HI	HI	NOM	HI	LO
Incr%	0%	0%	0%	0%	0%

Platform:	TIME	STOR	PVOL
base	VHI	HI	LO
Incr%	0%	0%	0%

Personnel:	ACAP	PCAP	PCON	APEX	LTEX	PLEX
base	NOM	HI	VHI	HI	HI	NOM
Incr%	0%	0%	0%	0%	0%	0%

Project:	TOOL	SITE
base	NOM	XHI
Incr%	0%	0%

User:	USR1	USR2
base	NOM	NOM
Incr%	0%	0%

EAF is also affected by Schedule

EAF: 0.75

OK Cancel Help

Figure 3: COCOMOII Cost Driver Content Module screenshot

EAF - Goal

base + Incr % = rating

Product:	RELY	DATA	DOCU	CPLX	RUSE
base	HI	NOM	NOM	NOM	LO
Incr%	0%	0%	0%	0%	0%

Platform:	TIME	STOR	PVOL
base	HI	HI	LO
Incr%	0%	0%	0%

Personnel:	ACAP	PCAP	PCON	APEX	LTEX	PLEX
base	NOM	HI	VHI	HI	HI	NOM
Incr%	0%	0%	0%	0%	0%	0%

Project:	TOOL	SITE
base	NOM	XHI
Incr%	0%	0%

User:	USR1	USR2
base	NOM	NOM
Incr%	0%	0%

EAF is also affected by Schedule

EAF: 0.48

OK Cancel Help

Figure 4: COCOMOII Cost Driver Goal Module screenshot

base + Incr % = rating

Product: RELY DATA DOCU CPLX RUSE

base HI NOM NOM NOM LO

Incr% 0% 0% 0% 0% 0%

Platform: TIME STOR PVOL

base HI HI LO

Incr% 0% 0% 0%

Personnel: ACAP PCAP PCON APEX LTEX PLEX

base NOM HI VHI HI HI NOM

Incr% 0% 0% 0% 0% 0%

Project: TOOL SITE

base NOM XHI

Incr% 0% 0%

User: USR1 USR2

base NOM NOM

Incr% 0% 0%

EAF is also affected by Schedule

EAF: 0.48

OK Cancel Help

Figure 5: COCOMOII Cost Driver Team/User Module screenshot

Project Name: 

Discovery\_Tool

Scale Factor: 16.78

Schedule

Project Notes

Development Model: 

Post Architecture

X	Module Name	Module Size	LABOR Rate (\$/month)	EAF	Language	NOM Effort DEV	EST Effort DEV	PROD	COST	INST COST	Staff	RISK
	Authentication	S:500	0.00	0.42	Object-Orient	1.6	0.7	738.5	0.00	0.0	0.1	0.0
	Content	S:1300	0.00	0.75	Object-Orient	4.2	3.2	408.8	0.00	0.0	0.5	0.0
	Goal	S:1000	0.00	0.48	Object-Orient	3.3	1.6	633.6	0.00	0.0	0.2	0.0
	Team/User	S:1000	0.00	0.48	Object-Orient	3.3	1.6	633.6	0.00	0.0	0.2	0.0

Total Lines of Code: 3800

Hours/PM: 152.00

Estimated

Optimistic

Most Likely

Pessimistic

Effort Sched

5.6

7.0

8.8

PROD

6.3

6.8

7.2

COST

677.2

541.8

433.4

INST

0.00

0.00

0.00

Staff

0.0

1.0

1.2

RISK

0.9

0.0

Figure 6: COCOMOII Result screenshot

## Result Analysis:

Total estimated line of code: 3800

Estimated Most-likely effort by COCOMOII: 7.0 person-month

Effort per person: 18 hours/week

Total time available:

Monthly team efforts:  $18 \text{ hr/}(\text{person-week}) * 8 \text{ members} * 4 \text{ weeks} = 576 \text{ hr/month}$

Time required as per COCOMOII:

Total time:  $7.0 \text{ person-month} * 152 \text{ hr/person-month} / 576 \text{ hr/month} = 1.8 \text{ months}$

Interpretation: According to the above calculation, the project development phase is estimated by COCOMOII to take 1.8 months starting from 10/23/18 to complete, which is inline with our estimation based on the assumption of 8 members working 18 hours per week for 12 weeks from 9/3/18.

## 6. Iteration Plan

### 6.1 Plan

This section aims to accomplish features in the system requirement in two project iterations, and to describe the detailed plan for each project iteration. The team will prioritize implementing the mission critical features. If time allows, the team will also implement lower prioritized features. The first iteration is to prototype sub systems, then complete and integrate the entire backend and frontend system simultaneously. However, this first iteration will only focus on implementing and testing the high priority features.. The second iteration is to implement and test low priority features based on time allowance, then conduct more thorough software regression testing, deployment of the system, gain feedback from the client, implement documentation, and fix any defects.

#### 6.1.1 Capabilities to be implemented

ID	Capability	Description	Prio rity	Iterat ion
UC-1	Login	User logs into the system with a username and password	high	1
UC-2	Contributor View current week goals and progress	Contributor can view overall project progress, current week goal, verticals in work. For each vertical, show number of draft, number of pitches submitted, number of pitches approved/ parked/ rejected.	high	1
UC-3	Contributor View past week goals	Contributor can view goals made in past weeks	high	1
UC-4	Contributor View future week goals	Contributor can view goals set for future weeks	high	1
UC-5	Contributor Receive notifications	Contributor can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked)	low	2

UC-6	Contributor Send message	Contributor can send a message to a specific user	low	2
UC-7	Contributor Receive message	Contributor can receive message from other users	low	2
UC-8	Contributor View content success rates by draft to approved pitch conversion ratio	Contributor can track his/her own success rate by the draft to approved pitch conversion ratio	low	2
UC-9	Contributor Logout	Contributor logs out of the system and ends their current session	high	1
UC-10	Contributor Create a draft	Contributor can create a new draft and add details	high	1
UC-11	Contributor Edit a draft	Contributor can modify a draft	high	1
UC-12	Contributor Delete a draft	Contributor can remove a draft	high	1
UC-13	Contributor View a draft	Contributor can view a draft's details: draft ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18)	high	1
UC-14	Contributor Pitch a draft	When a contributor thinks this draft is ready, he/she can click the "pitch it" button to publish this draft to the global pitch list. This draft is then removed from this draft board.	high	1
UC-15	Contributor View a pitch	Contributor can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews	high	1
UC-16	Contributor Filter pitches by criteria	Contributor can filter pitches by criteria such as status, creator etc	low	2
UC-17	Contributor Edit a personal profile	Contributor can make changes to their own profile including address, contact etc	high	1



UC-20	Super Admin View current week goals and progress	Super admin can view overall project progress, goal verticals, number of pitch needed by each vertical, progress of each vertical (pitch approved / needed). Super admin does not edit goal in dashboard page, it must be done in goals board page	low	2
UC-21	Super Admin View past week goals	Super admin can view goals made in past weeks	high	1
UC-22	Super Admin View future weeks goals	Super admin can view goals set for future weeks	high	1
UC-23	Super Admin Receive notifications	Super admin can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked). Super admin will receive notification as a new pitch needs to be reviewed / when weekly deadline approves, weekly publishing calendar needs to be reviewed.	low	2
UC-24	Super Admin Send message	Super admin can send a message to a specific user	low	2
UC-25	Super Admin Receive message	Super admin contributor can receive message from other users	low	2
UC-26	Super Admin Logout	Super admin logs out of the system and ends their current session	high	1
UC-27	Super Admin View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buy-side network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews [1][0]. Super admin can edit the pitch in the global pitch board page	high	1
UC-28	Super Admin Approve/reject a pitch	Super admin can click on a pitch, change its status to approved or rejected. If a total number of 2 admin/super admin have different opinions, the status of the pitch is changed to “parked” which is then moved to the parking board, and removed from the pitch board. Rejected pitch is permanently removed from database	high	1
UC-29	Super Admin Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	high	1

UC-30	Super Admin View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked, which will always be approved), log(contributor X modified at 11:30pm 11-10-18), Super admin can edit the pitch in the Weekly publishing calendar page	high	1
UC-31	Super Admin Approve the publishing calendar	Super admin can make the decision to publish the pitches in the weekly publishing calendar (approved for publish)	high	1
UC-32	Super Admin Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	low	2
UC-33	Super Admin Export weekly publishing calendar	Super admin can export the weekly publishing calendar into CSV file	high	1
UC-34	Super Admin View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked, which will always be parked), log(contributor X modified at 11:30pm 11-10-18), Super admin can edit the pitch in the parking board	high	1
UC-35	Super Admin Pull in parked pitch	If there is not enough pitches in the weekly publishing calendar, the super admin can move some parked pitches into publishing calendar (change parked pitches' status to approved, remove them from parking board, move into publishing calendar)	high	1
UC-36	Super Admin View a team member details	Super admin can click on a team member and view his/her information: member name, account type(contributor, admin, super admin), number of draft pitched, number of pitch approved, total weekly number of pitch needed, success rate, details (name, gender, email, phone, address, county, state, country)	high	1
UC-37	Super Admin Change a team member's type	Super admin can change a team member's type between admin and contributor	high	1
UC-38	Super Admin Create a new user	Super admin can create a new admin or contributor account	high	1

UC-39	Super Admin Delete an existing user	Super admin can delete an existing account	high	1
UC-40	Super Admin Set goals for current week	Super admin can set a list of goals desired for current week, each goal has one desired vertical, and number of pitch needed for that vertical. Once the goal is set, it's given to all contributors but the number of pitch is evenly distributed among the contributors.	high	1
UC-41	Super Admin Set goals for future weeks	Super admin can set a list of goals desired for future weeks	high	1
UC-42	Super Admin Check past weeks' goals	Super admin can select a week in history and check its goals	high	1
UC-43	Super Admin Edit a personal profile	Super admin can make changes to their own profile including address, contact etc	high	1
UC-44	Admin View current week goals and progress	Admin can view overall project progress, goal verticals, number of pitch needed by each vertical, progress of each vertical (pitch approved / needed).	high	1
UC-45	Admin View past week goals	Admin can view goals made in past weeks	high	1
UC-46	Admin View future weeks goals	Admin can view goals set for future weeks	high	1
UC-47	Admin Receive notifications	Admin can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked). Admin will receive notification as a new pitch needs to be reviewed	low	2
UC-48	Admin Send message	Admin can send a message to a specific user	low	2
UC-49	Admin Receive message	Admin contributor can receive message from other users	low	2
UC-50	Admin Logout	Admin logs out of the system and ends their current session	high	1
UC-51	View/Edit a pitch	Admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network),	high	1

		status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews [1][0]. Admin can edit the pitch in the global pitch board page		
UC-52	Admin Approve/reject a pitch	Admin can click on a pitch, change its status to approved or rejected. If a total number of 2 admin/super admin have different opinions, the status of the pitch is changed to “parked” which is then moved to the parking board, and removed from the pitch board. Rejected pitch is permanently removed from database	high	1
UC-53	Admin Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	low	2
UC-54	Admin View a team member details	Admin can click on a team member and view his/her information: member name, account type(contributor, admin, super admin), number of draft pitched, number of pitch approved, total weekly number of pitch needed, success rate, details (name, gender, email, phone, address, county, state, country)	high	1
UC-55	Admin Change a team member’s type	Admin can change a team member’s type between admin and contributor	high	1
UC-56	Admin Create a new user	Super admin can create a new admin or contributor account	high	1
UC-57	Admin Delete an existing user	Admin can delete an existing account	high	1
UC-58	Admin Edit a personal profile	Admin can make changes to their own profile including address, contact etc	high	1

Table 13: Construction iteration capabilities to be implemented

### 6.1.2 Capabilities to be tested

ID	Capability	Description	Prior ity	Iterat ion
UC-1	Login	User logs into the system with a username and password	high	1
UC-2	View current week goals and progress	Contributor can view overall project progress, current week goal, verticals in work. For each vertical, show number of draft, number of pitches submitted, number of pitches approved/ parked/ rejected.	high	1

UC-3	View past week goals	Contributor can view goals made in past weeks	high	1
UC-4	View future week goals	Contributor can view goals set for future weeks	high	1
UC-5	Receive notifications	Contributor can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked)	low	2
UC-6	Send message	Contributor can send a message to a specific user	low	2
UC-7	Receive message	Contributor can receive message from other users	low	2
UC-8	View content success rates by draft to approved pitch conversion ratio	Contributor can track his/her own success rate by the draft to approved pitch conversion ratio	low	2
UC-9	Logout	Contributor logs out of the system and ends their current session	high	1
UC-10	Create a draft	Contributor can create a new draft and add details	high	1
UC-11	Edit a draft	Contributor can modify a draft	high	1
UC-12	Delete a draft	Contributor can remove a draft	high	1
UC-13	View a draft	Contributor can view a draft's details: draft ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18)	high	1
UC-14	Pitch a draft	When a contributor thinks this draft is ready, he/she can click the "pitch it" button to publish this draft to the global pitch list. This draft is then removed from this draft board.	high	1
UC-15	View a pitch	Contributor can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews	high	1

UC-16	Filter pitches by criteria	Contributor can filter pitches by criteria such as status, creator etc	low	2
UC-17	Edit a personal profile	Contributor can make changes to their own profile including address, contact etc	high	1
UC-20	View current week goals and progress	Super admin can view overall project progress, goal verticals, number of pitch needed by each vertical, progress of each vertical (pitch approved / needed). Super admin does not edit goal in dashboard page, it must be done in goals board page	low	2
UC-21	View past week goals	Super admin can view goals made in past weeks	high	1
UC-22	View future weeks goals	Super admin can view goals set for future weeks	high	1
UC-23	Receive notifications	Super admin can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked). Super admin will receive notification as a new pitch needs to be reviewed / when weekly deadline approves, weekly publishing calendar needs to be reviewed.	low	2
UC-24	Send message	Super admin can send a message to a specific user	low	2
UC-25	Receive message	Super admin contributor can receive message from other users	low	2
UC-26	Logout	Super admin logs out of the system and ends their current session	high	1
UC-27	View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews [1][0]. Super admin can edit the pitch in the global pitch board page	high	1
UC-28	Approve/reject a pitch	Super admin can click on a pitch, change its status to approved or rejected. If a total number of 2 admin/super admin have different opinions, the status of the pitch is changed to “parked” which is then moved to the parking board, and removed from the pitch board. Rejected pitch is permanently removed from database	high	1
UC-29	Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	high	1

UC-30	View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked, which will always be approved), log(contributor X modified at 11:30pm 11-10-18), Super admin can edit the pitch in the Weekly publishing calendar page	high	1
UC-31	Approve the publishing calendar	Super admin can make the decision to publish the pitches in the weekly publishing calendar (approved for publish)	high	1
UC-32	Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	low	2
UC-33	Export weekly publishing calendar	Super admin can export the weekly publishing calendar into CSV file	high	1
UC-34	View/Edit a pitch	Super admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details(description, URL, buyside network), status(new, approved, rejected, parked, which will always be parked), log(contributor X modified at 11:30pm 11-10-18), Super admin can edit the pitch in the parking board	high	1
UC-35	Pull in parked pitch	If there is not enough pitches in the weekly publishing calendar, the super admin can move some parked pitches into publishing calendar (change parked pitches' status to approved, remove them from parking board, move into publishing calendar)	high	1
UC-36	View a team member details	Super admin can click on a team member and view his/her information: member name, account type(contributor, admin, super admin), number of draft pitched, number of pitch approved, total weekly number of pitch needed, success rate, details (name, gender, email, phone, address, county, state, country)	high	1
UC-37	Change a team member's type	Super admin can change a team member's type between admin and contributor	high	1
UC-38	Create a new user	Super admin can create a new admin or contributor account	high	1
UC-39	Delete an existing user	Super admin can delete an existing account	high	1
UC-40	Set goals for current week	Super admin can set a list of goals desired for current week, each goal has one desired vertical, and number of pitch	high	1

		needed for that vertical. Once the goal is set, it's given to all contributors but the number of pitch is evenly distributed among the contributors.		
UC-41	Set goals for future weeks	Super admin can set a list of goals desired for future weeks	high	1
UC-42	Check past weeks' goals	Super admin can select a week in history and check its goals	high	1
UC-43	Edit a personal profile	Super admin can make changes to their own profile including address, contact etc	high	1
UC-44	View current week goals and progress	Admin can view overall project progress, goal verticals, number of pitch needed by each vertical, progress of each vertical (pitch approved / needed).	high	1
UC-45	View past week goals	Admin can view goals made in past weeks	high	1
UC-46	View future weeks goals	Admin can view goals set for future weeks	high	1
UC-47	Receive notifications	Admin can receive notifications as a piece of content moves through the various stages of development (approved, rejected, parked). Admin will receive notification as a new pitch needs to be reviewed	low	2
UC-48	Send message	Admin can send a message to a specific user	low	2
UC-49	Receive message	Admin contributor can receive message from other users	low	2
UC-50	Logout	Admin logs out of the system and ends their current session	high	1
UC-51	View/Edit a pitch	Admin can click on a pitch in the list to view its details: pitch ID, title, vertical, creator ID, time created, last time modified, details (description, URL, buyside network), status(new, approved, rejected, parked), log(contributor X modified at 11:30pm 11-10-18), admin reviews [1][0]. Admin can edit the pitch in the global pitch board page	high	1
UC-52	Approve/reject a pitch	Admin can click on a pitch, change its status to approved or rejected. If a total number of 2 admin/super admin have different opinions, the status of the pitch is changed to "parked" which is then moved to the parking board, and removed from the pitch board. Rejected pitch is permanently removed from database	high	1



UC-53	Filter pitches by criteria	Super admin can filter pitches by criteria such as status, creator etc	low	2
UC-54	View a team member details	Admin can click on a team member and view his/her information: member name, account type(contributor, admin, super admin), number of draft pitched, number of pitch approved, total weekly number of pitch needed, success rate, details (name, gender, email, phone, address, county, state, country)	high	1
UC-55	Change a team member's type	Admin can change a team member's type between admin and contributor	high	1
UC-56	Create a new user	Super admin can create a new admin or contributor account	high	1
UC-57	Delete an existing user	Admin can delete an existing account	high	1
UC-58	Edit a personal profile	Admin can make changes to their own profile including address, contact etc	high	1

Table 14: Construction iteration capabilities to be tested

### 6.1.3 Capabilities not to be tested

Every capability listed above will be fully tested by the end of the second iteration.

### 6.1.4 CCD Preparation Plans

The clients and users that will involve in the CCD are:

- Linda Suen: client side representative
- Content contributor: client side user
- Content admin: client side user
- Super admin: client side user
- Maintainer: client side developer to maintain the system after handoff

The action items for the CCD preparation are:

- Develop all the core capabilities
- Ensure regression test is completed and all defects are fixed
- Draft user manual
- Develop use cases and scenarios to provide user context-setting
- Prepare stakeholder interaction via dev team dry runs
- Develop feedback survey for stakeholders who will be attending CCD
- Develop CCD risk management plan

## 6.2 Iteration Assessment

### 6.2.1 Capabilities Implemented, Tested, and Results

ID	Capability	Test Case	Test Results	If fail, why?
UC-1	Login	TC-01-1	P	
UC-2	Contributor View current week goals and progress	TC-02-1	P	
UC-3	Contributor View past week goals	TC-02-2	P	
UC-4	Contributor View future week goals	TC-02-3	P	
UC-9	Contributor Logout	TC-02-5	P	
UC-10	Contributor Create a draft	TC-03-1	P	
UC-14	Contributor Pitch a draft	TC-03-5	P	
UC-20	Super Admin View current week goals and progress	TC-08-1	P	
UC-21	Super Admin View past week goals	TC-08-2	P	
UC-22	Super Admin View future weeks goals	TC-08-3	P	
UC-26	Super Admin Logout	TC-08-4	P	
UC-27	Super Admin View/Edit a pitch	TC-09-1 TC-09-4	P	
UC-28	Super Admin Approve/reject a pitch	TC-09-2	P	
UC-30	Super Admin View/Edit a pitch	TC-10-1 TC-10-2	P	
UC-33	Super Admin Export weekly publishing calendar	TC-10-4	P	

UC-34	Super Admin View/Edit a pitch	TC-11-1 TC-11-2	P	
UC-35	Super Admin Pull in parked pitch	TC-11-4	P	
UC-36	Super Admin View a team member details	TC-12-1	P	
UC-37	Super Admin Change a team member's type	TC-12-2	P	
UC-38	Super Admin Create a new user	TC-12-3	P	
UC-39	Super Admin Delete an existing user	TC-12-4	P	
UC-40	Super Admin Set goals for current week	TC-13-1	P	
UC-41	Super Admin Set goals for future weeks	TC-13-2	P	
UC-42	Super Admin Check past weeks' goals	TC-13-3	P	
UC-44	Admin View current week goals and progress	TC-05-1	P	
UC-45	Admin View past week goals	TC-05-2	P	
UC-46	Admin View future weeks goals	TC-05-3	P	
UC-50	Admin Logout	TC-05-4	P	
UC-51	View/Edit a pitch	TC-06-1 TC-06-4	P	
UC-52	Admin Approve/reject a pitch	TC-06-2	P	
UC-54	Admin View a team member details	TC-07-1	P	
UC-55	Admin Change a team member's type	TC-07-2	P	
UC-56	Admin Create a new user	TC-07-3	P	

UC-57	Admin Delete an existing user	TC-07-4	P	
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Table 15: Capabilities implemented, tested, and results

## 6.2.2 Core Capabilities Drive-Through Results

In the CCD, we demonstrated the following items:

- Operational concept overview
- Transition objective and strategy
- Capability demo
- Testing suite and results
- Quality focal point
- Transition plan

In the capability demo section, we showed the client web app UI and features including creating a draft, pitch the draft, approve the draft and so on to cover the entire client workflow. Even though the product still needs time to be refined, we were able to show good progress. The custom gave the following feedback:

- Dashboard: Toggle Graph week view from Mon-Sun, to Fri-Thurs
- Verticals in Global Pitch board, should be drop down--should store the value of what is previously shown
- Pick from drop-down for Super Admin vertical override
- Detail view Cancel/Confirm should be one 'Close' button. More actions/operations provided to change a pitch. e.g edit, delete...
- UX/CSS styling: status color, user status icon(crown for super-admin...), change color schema based on System1 homepage
- Content contributor(user): status: active/inactive, indicating availability of allocating task
- Reorder of sidebar: goal, pitch, parking, calendar
- Redesign dashboard of super admin: design a board to display an evaluation of content contributors' work performance under certain date, user, etc..
- Redesign goal board of super admin: make a goal planned in weeks, provide CRUD functionality of this goal.
- Weekly Goal KPI - We can turn this into a Week over Week (so 2 lines - this week vs last week). Instead of #, we can use % to indicate what % complete we should be during each day of the week.
- Personal Work Progress -
- Need 3 bars -- Target, Pitched, Approved, and a Legend/Key (Finished is currently misspelled)
- Need search function since there will be too many people!
- Can we make this graph be vertical rather than horizontal? Sorted by A-Z, First Name
- Would be a huge win if we can have also date filters and go back in time (to see historical performance) -- if not, it's ok ... this data is stored in DB, correct?
- Make sure it is clear that goals are set on a weekly basis (highlighted week in the calendar)
- Notifications will be helpful if it can be configured. For example:

- Thursday Morning - Send a notification to all content contributors if less than 50% of their goal is met with Approved Pitches
- Thursday Morning - Send a notification to Super Admin if less than 50% of goal is met with Approved Pitches (overall)
- Friday Morning - Send a notification to Super Admin with a list of all content contributors that have not met 100% of their goal with Approved Pitches
- Here are the components needed in a pitch:
  - Title (text)
  - Vertical (Dropdown based on distinct Verticals set in Goal Board)
  - Quiz Type (Dropdown: Screenshot, Personality, Knowledge, Endless Scroll)
  - URL
  - Inspiration (text, max 80 characters)
  - Suggested Buy-side Network (Dropdown: Facebook, Snapchat, Pinterest, Native)
  - Targeting Info (text)
  - Description (text, max 80 characters)

## 6.3 Adherence to Plan

The first iteration went comparably smooth. We had a major pivot from trend discovery tool to idea management system. We were able to redo all the documents and provide new prototypes to show to the client by planned milestone dates. Then in the second iteration, we had problems catching up the plan. We were deadline driven and the schedule were often behind. This is due to multiple things:

1. Frequent requirement change. Certain key stakeholders are typical “know it when I see it”.
2. Staff shortage when key dev person took a vacation
3. Time shortage when HW5 and Thanksgiving happened
4. Towards the end of the semester, with people graduating, team morale went down dramatically

If we have one more chance to do this all over again, we would emphasize more on dev time instead of documentation and we hope to establish a more responsive communication mechanism with all key stakeholders.