Tabitha O'Malley: Team Lead

# Sprint 1

1/11 2:15 - 3:30

Adam was absent.

Talk about meeting time and general view for the semester.

- User manual
- Installation
- Models
- Presentation

Goal of 5 minute recap and entry at end of meetings.

## 1/13 12:30 - 2:30

Adam was absent and Tisha was absent but let us know that she had a Touch and go retreat.

Meeting was agreed to be pushed by 30 mins.

#### To Do:

- Presentation: Review

- Email Liu about deliverable : Done

- Product Vision: Waiting on response

- Scrumwise : Done

#### Assigned:

- Milan:

- Emailing Dr. Liu: Done

- David:

- List of Models : Done

- Tabitha:

- Adding Scrum tasks : Done

#### Sprint 1:

SRS	Update	Milan
SDD	Update	Milan
Test Plan	Redo	Tabitha
Presentations	Give	David, Milan, Tabitha
Product Vision	Update	Team
Installation	Mac Installation	Tisha
User Manual	Installation Process	David
Use Case	Updating	David, Tabitha
DFD	Updating	David, Tabitha
CRC	Creation	David, Tabitha

Models	Sprint
Use Case	4
Scenarios	5

DFD	4
Class	5
State	5
CRC	4

Tisha	N/A
Milan	Email Dr. Liu Helped with Scrumwise Started Engineering Notebook Talked to Dr. Liu
David	Listed the model Helped with the scrum Started Engineering Notebook Talked to Dr. Liu
Tabitha	Started Engineering Notebook Plan Sprints and add to scrum Helped planning models Setup Talked to Dr. Liu
Adam	N/A

Assigned Tisha to creating the sprint 4 folder and creating her document : Completed 1/15

Worked on editing the product vision to fit the final product for this semester

# 1/16 2:15- 3:30

Talk to the professors about the team.

## Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	
SDD	Update	Milan	
Test Plan	Redo	Tabitha	In Progress
Presentations	Give	David, Milan, Tabitha	In Progress
Product Vision	Update	Team	In Progess
Installation	Mac Installation	Tisha	
User Manual	Installation Process	Adam	
Use Case	Updating	David, Tabitha	
DFD	Updating	David, Tabitha	
CRC	Creation	David, Tabitha	

Tisha	Worked on Product Vision
Milan	Worked on Product Vision
David	Worked on Product Vision
Tabitha	Worked on Product Vision
Adam	None

## 1/18 2:15 - 3:30

Tisha had an eye doctor's appointment.

Emailed Dr. Ochoa about model consultation.

Model Number Standardization:

X. Y. Z

X : is the Sprint Number Y : is the Model Number Z : is the Version Number

### Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	Discovered tasks
SDD	Update	Milan	Discovered tasks
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Presentations	Give	David, Milan, Tabitha	Completed
Product Vision	Update	Team	Done
Installation	Mac Installation	Tisha	
User Manual	Installation Process	Adam	Started Document
Use Case	Updating	David, Tabitha	No, change necessary at current time
DFD	Updating	David, Tabitha	Match current understand, need more knowledge on training  Higher level 3.1.3 Lower lev 3.2.2 Training

			3.3.1
CRC	Creation	David, Tabitha	Emailed Dr. Ochoa Start Templates

Tisha	Inputting information about Mac Installation/ Starting Process
Milan	Started working on SRS and SDD Invited TA github Gave poster presentation
David	Organized the models Collaborated on model org system Gave advice to Nemo Gave poster presentation
Tabitha	Emailed Dr. Ochoa Collaborated on model org system Assigned work Helped Adam work out Scrumwise for User Manual Gave poster presentation
Adam	User Manual: Installation and general formatting/ starting the document

# 1/20 12:00 - 2:00

Tisha was 5 min late and David was 30 mins late.

To do: Understand Mac Hardware Tisha

### Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	Discovered tasks Emailed Liu
SDD	Update	Milan	Discovered tasks Email Liu
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Product Vision	Update	Team	Done- light editing
Installation	Mac Installation	Tisha	Setup and Emailing Dr. Liu
			Cloned and got to the build process and got stuck
User Manual	Installation Process	Adam	Making notes Installed Part 1 and 2
Use Case	Updating	David, Tabitha	No, change necessary at current time
DFD	Updating	David, Tabitha	Match current understand, need more knowledge on training  Higher level
			3.1.3 Lower lev 3.2.2 Training 3.3.1
CRC	Creation	David, Tabitha	Start Templates Brainstormed Classes and Responsibilities

Tisha	Cloned and got to the build process and got stuck - Mac Install
Milan	Waiting on response from Dr. Liu on SRS and SDD Edited Product Vision
David	Suggests for Product Vision Brainstorms Class and Responsibilities
Tabitha	Brainstorms Class and Responsibilities Suggests for Product Vision Setup for Team meeting
Adam	Done part 1 and 2 has to install mlk before moving on Researched other teams work

## 1/22 18:00 - 20:00

Meet with Dr. Liu for help with installation and other questions.

Tisha is sick.

I got kicked off of Scrumwise and Milan is taking screenshots of scrumwise as a backup

To Do:

Upload Product Vision:

CRC:

SRS and SDD: User Manual:

#### Sprint 1:

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Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	To be checked at next
SDD	Update	Milan	Met with Dr. Liu and finalized what needed to be updated
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Product Vision	Update	Team	Uploaded to Github
Installation	Mac Installation	Tisha	Setup and Emailing Dr. Liu  Cloned and got to the build process and got
			stuck
User Manual	Installation Process	Adam	Complete first install
Use Case	Updating	David, Tabitha	Update databases
DFD	Updating	David, Tabitha	Update databases to WFST  Higher level 3.1.3 Lower lev 3.2.2 Training

			3.3.1
CRC	Creation	David, Tabitha	None

Tisha	
Milan	Review SDD with Dr. Liu Uploaded Product Vision statement to github
David	
Tabitha	Review SDD and Product Vision with Dr. Liu
Adam	Worked on the user manual installation- got up to part 3 which has taken long to download all the things necessary but I believe I solved the issue with MkI and recorded it

# 1/23 12:00 - 2:00

Adam was absent due to sickness.

Regained access to the scrumwise

## Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	To be checked at next meeting with Liu
SDD	Update	Milan	Finalized what needed to be updated and started updates
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Installation	Mac Installation	Tisha	?
User Manual	Installation Process	Adam	None
Use Case	Updating	David, Tabitha	Done?
DFD	Updating	David, Tabitha	Higher level 4.1.1 Lower lev 4.2.1 Training 4.3.1
CRC	Creation	David, Tabitha	None

Tisha	Progress in the Mac Install
Milan	Update scrumwise for SDD Help Tisha with Mac install Review SDD
David	Updated Use Case, DFD Section 1.2.1, 2.2
Tabitha	Updated what SDD sections need work Updated Use Case, DFD

	Section 1.2.1, 2.2
Adam	

# 1/25 12:00 - 2:00

To do:

Adding visuals and ellaberating - Adam SDD work on - Milan, Tabitha, David CRC - Tabitha, David

### Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	To be checked at next meeting with Liu
SDD	Update	Milan	Finalized what needed to be updated and started updates
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Installation	Mac Installation	Tisha	?
User Manual	Installation Process	Adam	None
Use Case	Updating	David, Tabitha	Done?
DFD	Updating	David, Tabitha	Higher level 4.1.1 Lower lev 4.2.1 Training 4.3.1
CRC	Creation	David, Tabitha	Started Decoding Classes

Tisha	
Milan	
David	
Tabitha	
Adam	

#### Viterbi decoder:

https://en.wikipedia.org/wiki/Viterbi algorithm

#### Input - From HMM:

- State space : Set of HMM state changes
- Array of initial probabilities : probability of next what state is
- Sequence of Observation: order of observations based on time
- Observation space : set of all distance between states
- Transition Matrix : probability of going to the next state
- Emission matrix: give state what is the probability of this observation

### Output:

Most likely hidden state sequence

# 1/27 12:00 - 2:00

David was 20 min late Milan was 30 min late Tisha was 40 min late

## Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	To be checked at next meeting with Liu
SDD	Update	Milan	Finalized what needed to be updated and started updates
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Installation	Mac Installation	Tisha	?
User Manual	Installation Process	Adam	None
Use Case	Updating	David, Tabitha	Done?
DFD	Updating	David, Tabitha	Higher level 4.1.1 Lower lev 4.2.1 Training 4.3.1
CRC	Creation	David, Tabitha	None

## Recap:

Tisha	Able to install python, mlk does work with MAC but found a work around
Milan	Looked over 2.2, 3.1, 5
David	Read GMM code, HMM documentation
Tabitha	Documentation for FFT, HMM, MFCC
Adam	Work on running multiple files

HMM:

#### Input:

- States

?

- State transition probabilities

#### Output:

- Emission probability matrix
- Transition probability matrix
- Probability for a sequence of observable events

#### **HMM**

https://web.stanford.edu/~jurafsky/slp3/A.pdf

#### Transition probability matrix

https://www.sciencedirect.com/topics/mathematics/transition-probability-matrix

#### FT Equation:

$$\begin{split} X(\Omega) &= \mathcal{F}\{x(t)\} = \int_{-\infty}^{\infty} x(t) e^{-j\Omega t} dt, \\ x(t) &= \mathcal{F}^{-1}\{X(\Omega)\} = \frac{1}{2\pi} \int_{-\infty}^{\infty} X(\Omega) e^{j\Omega t} d\Omega, \end{split}$$

# 1/29 18:00 - 20:00

David and Milan were late by 7 mins Tisha had a SGA meeting

## Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	To be checked at next meeting with Liu
SDD	Update	Milan	Finalized what needed to be updated and started updates
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Installation	Mac Installation	Tisha	?
User Manual	Installation Process	Adam	None
Use Case	Updating	David, Tabitha	Done?
DFD	Updating	David, Tabitha	Higher level 4.1.1 Lower lev 4.2.1 Training 4.3.1
CRC	Creation	David, Tabitha	None

Tisha	
Milan	
David	
Tabitha	
Adam	

# 2/05 18:00 - 20:00

Tisha was late by 12 min Milan was late by 5 min David was late by 9 min

## Sprint 1:

Work	Sprint Goal	Lead	Progress
SRS	Update	Milan	Editing
SDD	Update	Milan	Editing
Test Plan	Redo	Tabitha	Waiting on Working Kaldi
Installation	Mac Installation	Tisha	Attempting on a virtual machine
User Manual	Installation Process	Adam	Common Problems
CRC	Creation	David, Tabitha	Basic structure
Slides		Team	Editing

Tisha	Slides
Milan	Slides Editing SRS and SDD
David	Slides
Tabitha	Slides
Adam	Slides

To do: Finish slide

Finish slide / practice

Test plan

# Sprint 1 :

Work	Sprint Goal	Lead	Progress
Test Plan	Redo	Tabitha	Started based off of requirements
Installation	Mac Installation	Tisha	Attempting on a virtual machine
Installation	Linx	Tisha, Adam	Set up time to go to Mica Plex
User Manual	Installation Process	Adam	Common Problems
CRC	Creation	David, Tabitha	Skip
Slides		Team	Editing

Tisha	Mac install
Milan	Slides
David	Test Plan
Tabitha	Email Liu and Akbas about scale of project Test Plan
Adam	Mac install

Tisha and Milan were late by 5 mins

To do:

Test plan Script from Liu Update on installation

## Sprint 1:

Work	Sprint Goal	Lead	Progress
Test Plan	Redo	Tabitha	Section 3
Installation	Mac Installation	Tisha	Attempting on a virtual machine
Installation	Linx	Tisha, Adam	Set up time to go to Mica Plex
User Manual	Installation Process	Adam	Common Problems
CRC	Creation	David, Tabitha	Skip

Tisha	Mac Install
Milan	Script for Liu
David	Section 3 : Test plan
Tabitha	Section 3 : Test plan
Adam	Linux installation

Milan was late by 4 min David was late by 2 min Tisha did not attend

To do:

Setup Sprint 5

### Sprint 2:

Sprii 2 :	1	T	
Work	Sprint Goal	Lead	Progress
Test Plan	1, 2, 3.1, 3.3, 3.4, 4, 5, 8	Tabitha	3.1.2, 3.1.3 , 3.3.2, 3.3.3
Installation	Linux (Finish) Mac (Finish)	Tisha, Adam	Waiting for a response from Akbas
User Manual	1, 2, 3.2.4, 8, 9	Adam	Section 8
SRS	2.3, 3, 4.1, 4.2, 4.3, Appendix	Milan, Tabitha, David	None
SDD	2.1. 2.2 , 4.1, 4.2	Milan, Tabitha, David	None
Script	Finish, take in multiple audio files	Adam	None
Demo	Slides and Presentation	Team	None
Diagrams	All updated	Tabitha, David	None
DR. Liu Script	Powerpoint Analysis Presentation Prep	Milan	Data Preparation Presentation Slides
Mini libri speech	Research Attempt to implement	David, Adam	None

Tisha	None
Milan	Sprint Setup Data Preparation Presentation Slides

David	Sprint Setup Test Plan: 3.1.2, 3.1.3 Requirements
Tabitha	Sprint Setup Test Plan: 3.3.2, 3.3.3 Requirements
Adam	Sprint Setup User Manual Section 8

Milan was late by 4 min David was late by 2 min Tisha did not attend

To do: Setup Sprint 5

#### Sprint 2:

Spriit 2.	ī	T	<u> </u>
Work	Sprint Goal	Lead	Progress
Test Plan	1, 2, 3.1, 3.3, 3.4, 4, 5, 8	Tabitha	
Installation	Linux (Finish) Mac (Finish)	Tisha, Adam	
User Manual	1, 2, 3.2.4, 8, 9	Adam	
SRS	2.3, 3, 4.1, 4.2, 4.3, Appendix	Milan, Tabitha, David	Requirements
SDD	2.1. 2.2 , 4.1, 4.2	Milan, Tabitha, David	
Script	Finish, take in multiple audio files	Adam	
Demo	Slides and Presentation	Team	
Diagrams	All updated	Tabitha, David	
DR. Liu Script	Powerpoint Analysis Presentation Prep	Milan	
Mini libri speech	Research Attempt to implement	David, Adam	

Tisha	
Milan	Dr. Liu Script

David	
Tabitha	
Adam	Talked to Yang about Linux Computers Contacting IT

# Sprint 2

# 02/12

Milan was late by 3 min

To do: Test Plan

## Sprint 2:

Work	Sprint Goal	Lead	Progress
Test Plan	1, 2, 3.1, 3.3, 3.4, 4, 5, 8	Tabitha	Section 4, 5
Installation	Linux (Finish) Mac (Finish)	Tisha, Adam	Continue Mac Waiting on IT
User Manual	1, 2, 3.2.4, 8, 9	Adam	Appendix
SRS	2.3, 3, 4.1, 4.2, 4.3, Appendix	Milan, Tabitha, David	None
SDD	2.1. 2.2 , 4.1, 4.2	Milan, Tabitha, David	Section 4.2.2
Script	Finish, take in multiple audio files	Adam	None
Demo	Slides and Presentation	Team	None
Diagrams	All updated	Tabitha, David	None
DR. Liu Script	Powerpoint Analysis Presentation Prep	Milan	Understanding
Mini libri speech	Research Attempt to implement	David, Adam	None

Downloading Ubuntu Won a bet
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Milan	Debugging script
David	Test Plan Section 4
Tabitha	Test Plan Section 5 SDD Section 4.2.2 Requirements
Adam	Glossary Lost a bet

David went home for the long weekend Tisha was late by

To do: Engineering Notebooks Test Plan Scripts

## Sprint 2:

Work	Sprint Goal	Lead	Progress
Test Plan	1, 2, 3.1, 3.3, 3.4, 4, 5, 8	Tabitha	3, 4, 5
Installation	Linux (Finish) Mac (Finish)	Tisha, Adam	None
User Manual	1, 2, 3.2.4, 8, 9	Adam	3.2.5
SRS	2.3, 3, 4.1, 4.2, 4.3, Appendix	Milan, Tabitha, David	None
SDD	2.1. 2.2 , 4.1, 4.2	Milan, Tabitha, David	None
Script	Finish, take in multiple audio files	Adam	Multiple wav and conversion
Demo	Slides and Presentation	Team	None
Diagrams	All updated	Tabitha, David	None
DR. Liu Script	Powerpoint Analysis Presentation Prep	Milan	Missing data
Mini libri speech	Research Attempt to implement	David, Adam	None

Tisha	User manual 3.2.5
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Milan	Script
David	None
Tabitha	Section 3, 4, 5
Adam	Script