Project Plan

Project Name: Tresearch
Application Type: Web Application

Trial By Fire
Jessie Lazo
Matthew Chen (Team Lead)
Pammy Poor
Viet Nguyen

Instructor: Vatanak Vong

Submission Date
10/27/2021

California State University, Long Beach
College of Engineering
CECS491 Section 6 11950, Fall 2021

1. **Introduction**
    ### 1.1 Purpose
    The Project Plan intends to provide the necessary path to the implementation of our system whilst adhering to proper Scrum methodology. The Project Plan breaks down all information pertaining to the development of the Project on a low level. Phases represent significant periods of time in the semester which are then broken into Sprints consisting of the work items as well as the task breakdowns. Initial work item effort point estimates are provided based on an hour approximation. The Project Roadmap represents a high level view of the Project Plan that focuses on milestones, features, and the general timeframe.

    ### 1.2 Project Overview
    Tresearch is an interactive mind mapping tool for documenting users' learning journey. Users can create their own knowledge tree(s) to document what they are currently learning and have learned throughout their life. Knowledge trees are made up of nodes that consist of a title, description/summary, and optional tag. Branches that come off of nodes point to nodes that utilize or require knowledge from the previous node. Users can view any other user's public knowledge trees to see what they are learning or have learned and how. If a user finds another user's tree or a portion of their tree to be particularly useful or helpful, they can rate a particular node or section of the tree and they can also copy that section over to their own tree. Users can add additional information to their public profiles such as what they are currently learning, and where they are working/what they currently do or have done. Users can utilize a search function in order to find people whose trees contain a certain topic or keyword/phrase, and can also utilize a filter to narrow searches by users who are learning said topic, are using said topic (i.e. in their work or otherwise), by rating, and by tags.

    ### 1.3 Risks
    Risks that may be encountered throughout the development of the project are among the following. Scope creep risk, the risk in which there is an unexpected change to the Project Scope that may result in additional costs and resource allocation. Effort point risk, where initial estimates given for work items are inaccurate thereby resulting in less or more time spent which may offset other tasks set in Sprint planning. Technology risk, the risk that technologies and the versions specified are no longer viable for production in the future. Cost risk, in which features implemented in the cloud service require more payment than expected.

    ### 1.4 Risk Management
    The issue of Scope Creep Risk will be addressed through determining the severity of potential risks and how much they would affect the Project. Effort Point Risk will be dealt with through each cycle of Sprint Planning to properly determine the effort points that work items and their respective tasks will take and allocate the team resources to manage them as best as possible. The Technology Risk will be addressed by going through the DARR process for new

technologies essential to the Project development. The Cost Risk will be dealt with monetary contributions from the team necessary to continue the cloud service hosting.

Fall 2021

Assignee	Phase 2				Phase 3					

Milestones / Sprints

	Milestone 2									
	Sprint 3		Sprint 4		Sprint 5		Sprint 6		Sprint 7	Sprint 8
	10/07/21 - 10/14/21		10/22/21 - 10/27/21		10/29/21 - 11/10/21		11/12/21 - 11/24/21		11/26/21 - 12/08/21	12/9/21 - 12/17/21

Work Items

Sprint 3			Sprint 4			Sprint 5			Sprint 6			Sprint 7			Sprint 8
Jessie L	Project Plan	8	Jessie L	Project Plan	9	Jessie L	Low Level Design	15	Viet N	UM	15	Matthew C	Logging	15	Retrospective Review
Pammy P	Test Plan	12	Pammy P	Test Plan	2	Matthew C	BRD Revisions	3	Jessie L	Project Plan Revisions	2		Retrospective Prep		Finals Review
	Default Items	12	Matthew C	Network Diagram	5.5	Jessie L	Tech Spec Revisions	2.5	Pammy P	Test Plan Revisions	3		Default Items	12	
				Default Items	12	Pammy P	Site Map Revisions	0.5	Matthew C	Network Diagram Revisions	5				
						Viet N	HL Design Revisions	3		Default Items	12				
							Default Items	12							

Tasks

Sprint 3		Sprint 4		Sprint 5		Sprint 6		Sprint 7	
PP: High Level (Fall)	1	High Level (Fall)	1	BRD: More specific direction on system behavior	1	Backlog Grooming	3	Backlog Grooming	3
PP: High Level (Spring)	1	High Level (Spring)	1	BRD: More Non-Functional Requirements	2	Sprint Planning	4	Sprint Planning	4
PP: Low Level (Fall)	3	Low Level (Fall)	3	TS: Elaborate on Development/Testing Differences	2	Sprint Retrospective	2	Sprint Retrospective	2
PP: Low Level (Spring)	3	Low Level (Spring)	4	TS: Address Front-End Technologies	0.5	Client Feedback/Demo	3	Client Feedback/Demo	3
TP: Test Plan Write Up (Draft)	6	Use Case 2: Copying a node	1	HL: Specify Data Access Components	1				
Use Case 1: Creating a Node	0.5	Test Plan Final Draft	3	HL: Hardware Architecture	2				
Use Case 2: Copying a Node	0.5	Find Ports/IPs	1	HL: Elaborate on general	1				
Use Case 3: Pasting a Node	0.5	Research Cloud Provider	2	SM: Reduce Lines	0.5				
Use Case 4: Setting private/public state	0.5	Create Diagram	1	Backlog Grooming	3				
Use Case 5: Changing contents	0.5	Decide Input/Outputs	0.5	Sprint Planning	4				
Use Case 6: Changing tag	0.5	Specify Firewall Purposes	0.5	Sprint Retrospective	2				
Use Case 7: Changing parent	0.5	Specify Load Balancer Purposes	0.5	Client Feedback/Demo	3				
Use Case 8: Deleting a node	0.5	Backlog Grooming	3						
Use Case 9: Searching	0.5	Sprint Planning	4						
Use Case 10: Rating	0.5	Sprint Retrospective	2						
Backlog Grooming	3	Client Feedback/Demo	3						
Sprint Planning	4								
Sprint Retrospective	2								
Client Feedback/Demo	3								

Time/Sprint

Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7
31	30.5	36	37	27

Configuration / Defaults

Fall Break 11/22/21 - 11/26/21	
Finals 12/13/21 - 12/18/21	
Default Items	12
Backlog Grooming/Half way and Thursdays between sprints	3
Sprint planning-Thurdays between sprints and possibly first/last day of current/next sprint	4
Sprint retrospective-half way and/or last day of sprint	2
Client feedback/demo-Office hours days (Thurdays and Saturdays)	3
Cost of Deployment	$100

Sprint (One Week Long)	Sprint (Two Weeks Long)
Max Team Capacity-42	Max Team Capacity-84
Med Team Capacity-35	Med Team Capacity-70
Min Team Capacity-27	Min Team Capacity-54
Avg Expected Team Capacity-32	Avg Expected Team Capacity-64

Estimates

Item	Estimate
Project Plan	17
Test Plan	14
Network Diagram	13
Low Level Design	15
UM	15
Logging	15
BRD Revisions	3
Tech Spec Revisions	2.5
Site Map Revisions	1
HL Design Revisions	4
Project Plan Revisions	2
Test Plan Revisions	3
Network Diagram Revisions	5

Spring 2022

		Phase 1		Phase 2		Phase 3		Phase 4	
		Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7	Sprint 8
		1/21/22-2/2/22	2/4/22-2/16/22	2/18/22-3/2/22	3/4/22-3/16/22	3/18/22-3/30/22	4/1/22-4/13/22	4/15/22-4/27/22	4/29/22-5/4/22

Calendar notes (left column):
- Spring Break 3/28/22-4/1/22
- Finals 5/9/22-5/14/22

Work Items

Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7	Sprint 8
J Database Setup 38	P Datastore Access 8	V Login/Logout 14	P Deleting a node 19	P Copying a node 20	P Pasting a node 20	Changing parent of node 23	Final Deployment Setup 25
P Datastore Access 8	V User Access Control 14	J Registration 14	V Setting nodes private/public 13	V Changing contents of nodes 11	V Changing tags of nodes 11	Final Testing/Documentation 25	Final Deployment 25
V Cloud Setup 6	J User Management 19	M Default Items 16	M Default Items 16	J Usage Analysis Dashboard 14	J Usage Analysis Dashboard 9	Default Items 16	M Default Items 16
M Default Items 16	M Logging 10			M Default Items 16	M Rating 11		
	M Default Items 16				M Default Items 16		

Default / Planning Notes (left column)

Item	Value
Default Items	16
Deployment on Thursdays	4
Backlog Grooming/Half way and Thursdays between sprints	3
Sprint planning-Thursdays between sprints and possibly first/last day of current/next sprint	4
Sprint retrospective-half way and/or last day of sprint	2
Client feedback/demo-Office hours days (Thurdays and Saturdays)	3
Costs	$100

Week	Sprint
Max Team Capacity-42	Max Team Capacity-84
Med Team Capacity-35	Med Team Capacity-70
Min Team Capacity-27	Min Team Capacity-54
Avg Expected Team Capacity-32	Avg Expected Team Capacity-64
	512

Person	Value
Jessie (J)	16
Matthew (M)	16
Pammy (P)	22
Viet (V)	16

Tasks

Sprint 1
Task	Est
DB: Purpose for each database	2
DB: Find and organize information that we will be needing	6
DB: Determine classes/tables	6
DB: UML and Relation Scheme Diagraming	6
DB: Refining	6
DB: SQL	6
DB: Testing	3
DB: Documentation	3
DA: Analyzation	3
DA: Access Requirements	2
DA: Inserts/Queries	3
Cloud: Setup	3
Cloud: Testing	3
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 2
Task	Est
DA: Network Communication	2
DA: Error Handling	2
DA:Testing	3
DA: Documentation	1
UAC: Insert/Queries	2
UAC: UI	4
UAC: Network Communication	2
UAC: Error Handling	2
UAC: Testing	3
UAC: Documentation	1
UM: Insert/Queries	2
UM: UI	7
UM: Network Communication	2
UM: Error Handling	2
UM: Testing	5
UM: Documentation	1
Logging: Insert/Queries	3
Logging: Network Communication	2
Logging: Error Handling	2
Logging: Testing	2
Logging: Documentation	1
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 3
Task	Est
Login/Logout: Insert/Queries	2
Login/Logout: UI	4
Login/Logout: Network Communication	2
Login/Logout: Error Handling	2
Login/Logout: Testing	3
Login/Logout: Documentation	1
Registration: Insert/Queries	2
Registration: UI	4
Registration: Network Communication	2
Registration: Error Handling	2
Registration: Testing	3
Registration: Documentation	1
Create: Insert/Queries	2
Create: UI	7
Create: Network Communication	2
Create: Error Handling	2
Create: Testing	5
Create: Documentation	2
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 4
Task	Est
Delete: Insert/Queries	2
Delete: UI	7
Delete: Network Communication	2
Delete: Error Handling	2
Delete: Testing	5
Delete: Documentation	1
Private/Public: Insert/Queries	2
Private/Public: UI	3
Private/Public: Network Communication	2
Private/Public: Error Handling	2
Private/Public: Testing	3
Private/Public: Documentation	1
Searching: Insert/Queries	2
Searching: UI	4
Searching: Network Communication	2
Searching: Error Handling	2
Searching: Testing	3
Searching: Documentation	2
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 5
Task	Est
Copy: Insert/Queries	2
Copy: UI	8
Copy: Network Communication	2
Copy: Error Handling	2
Copy: Testing	5
Copy: Documentation	1
Contents: Insert/Queries	2
Contents: UI	2
Contents: Network Communication	2
Contents: Error Handling	2
Contents: Testing	2
Contents: Documentation	1
UAD: Insert/Queries	2
UAD: UI	10
UAD: Network Communication	2
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 6
Task	Est
Paste: Insert/Queries	2
Paste: UI	8
Paste: Network Communication	2
Paste: Error Handling	2
Paste: Testing	5
Paste: Documentation	1
Tags: Insert/Queries	2
Tags: UI	2
Tags: Network Communication	2
Tags: Testing	2
Tags: Documentation	2
UAD: Error Handling	2
UAD: Testing	6
UAD: Documentation	1
Rating: Insert/Queries	2
Rating: UI	2
Rating: Network Communication	2
Rating: Error Handling	2
Rating: Testing	2
Rating: Documentation	1
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 7
Task	Est
Parent: Insert/Queries	2
Parent: UI	10
Parent: Network Communication	2
Parent: Error Handling	2
Parent: Testing	6
Parent: Documentation	1
Final Testing/Documentation	25
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Sprint 8
Task	Est
Final Deployment Setup	25
Final Deployment	25
Deployment	4
Backlog Grooming	3
Sprint Planning	4
Sprint Retrospective	2
Client Feedback/Demo	3

Time/Sprint: 68 | 67 | 63 | 62 | 61 | 67 | 64 | 66

Estimates

Item	Total	Purpose for each database	Find and organize information that we will be needing	Determine classes/tables	UML and Relation Scheme Diagraming	Refining	SQL	Testing	Documentation
Database Setup	38	Purpose for each database 2	Find and organize information that we will be needing 6	Determine classes/tables 6	UML and Relation Scheme Diagraming 6	Refining 6	SQL 6	Testing 3	Documentation 3
Datastore Access	16	Analyzation 3	Access Requirements 2	Inserts/Queries 3		Network Communication 2	Error Handling 2	Testing 3	Documentation 1
Cloud Setup	6	Setup 3						Testing 3	
User Access Control	14			Insert/Queries 2	UI 4	Network Communication 2	Error Handling 2	Testing 3	Documentation 1
User Management	19			Insert/Queries 2	UI 7	Network Communication 2	Error Handling 2	Testing 5	Documentation 1
Logging	10			Insert/Queries 3		Network Communication 2	Error Handling 2	Testing 2	Documentation 1
Login/Logout	14			Insert/Queries 2	UI 4	Network Communication 2	Error Handling 2	Testing 3	Documentation 1
Registration	14			Insert/Queries 2	UI 4	Network Communication 2	Error Handling 2	Testing 3	Documentation 1
Creating a node	19			Insert/Queries 2	UI 7	Network Communication 2	Error Handling 2	Testing 5	Documentation 1
Deleting a node	19			Insert/Queries 2	UI 7	Network Communication 2	Error Handling 2	Testing 5	Documentation 1
Setting nodes private/public	13			Insert/Queries 2	UI 3	Network Communication 2	Error Handling 2	Testing 3	Documentation 1
Searching	14			Insert/Queries 2	UI 4	Network Communication 2	Error Handling 2	Testing 3	Documentation 1
Copying a node	20			Insert/Queries 2	UI 8	Network Communication 2	Error Handling 2	Testing 5	Documentation 1
Changing contents of nodes	11			Insert/Queries 2	UI 2	Network Communication 2	Error Handling 2	Testing 2	Documentation 1
Usage Analysis Dashboard	23			Insert/Queries 2	UI 10	Network Communication 2	Error Handling 2	Testing 6	Documentation 1
Pasting a node	20			Insert/Queries 2	UI 8	Network Communication 2	Error Handling 2	Testing 5	Documentation 1
Changing tags of nodes	11			Insert/Queries 2	UI 2	Network Communication 2	Error Handling 2	Testing 2	Documentation 1
Rating	11			Insert/Queries 2	UI 2	Network Communication 2	Error Handling 2	Testing 2	Documentation 1
Changing parent of node	23			Insert/Queries 2	UI 10	Network Communication 2	Error Handling 2	Testing 6	Documentation 1
Final Testing/Documentation	25							Testing	
Final Deployment Setup	25							Testing	
Final Deployment	25							Testing	
Default Items	128								
Total	**518**								