**Link Manager Application**

Team Contract

University of Cincinnati

School of Information Technology

Senior Design Project 2021

## Table of Contents

[Contract Intent 2](#_Toc43223987)

[The Team 3](#_Toc43223988)

[Team Values & Rules 5](#_Toc43223989)

[Communication Plan 5](#_Toc43223990)

[Problems and Escalations 6](#_Toc43223991)

[The Project 6](#_Toc43223992)

[The Problem 6](#_Toc43223993)

[The Solution 7](#_Toc43223994)

[Project Scope 7](#_Toc43223995)

## Contract Intent

The following contract was written and agreed upon by Daniel Hickman, Kemal Ozturk, and Lauren Tillery. The contract provides expectations, objectives, and methods for the development of the Link Manager Application.

This contract is effective for all team members participating in IT 5001/5002 during the 2020-2021 school year.

# The Team

“The team” refers to the three parties of this contract who are working together to create the Link Manager Application.

**Daniel Hickman**

Project Manager

leinadhickman@gmail.com

hickmadc@mail.uc.edu

513-438-1597

Responsibilities

* Scheduling and facilitating team meetings based on the Agile methodology. This will include Sprint Planning Sessions, Stand-ups, Sprint Reviews, and Retrospectives.
* Grooming the Product Backlog and maintaining the requirements documentation at a level of detail which is helpful for the developers.
* Updating the project timeline and Kanban board and following-up with team members on their progress or impediments.
* Drafting all project documents required for the course, delegating sections to other team members as appropriate.
* Submitting all project assignments.

**Kemal Ozturk**

Developer

97kemalozturk@gmail.com

ozturkkl@mail.uc.edu

832-520-1467

Responsibilities

* Developing code for the Link Manager Application.
* Determining an appropriate amount of work for each Sprint during the Sprint Planning meetings and presenting work completed at the Sprint Reviews.
* Meeting deadlines set for coding and testing while updating the Kanban board to reflect work completed.
* Attending scheduled meetings and communicating progress and roadblocks with the team.
* Researching features and technology that could improve the Link Manager Application.

**Lauren Tillery**

Developer

tillerylauren@gmail.com

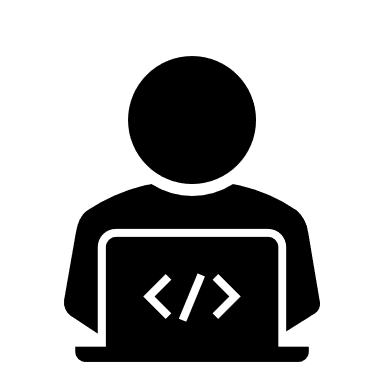
tillerlo@mail.uc.edu

513-240-6907

Responsibilities

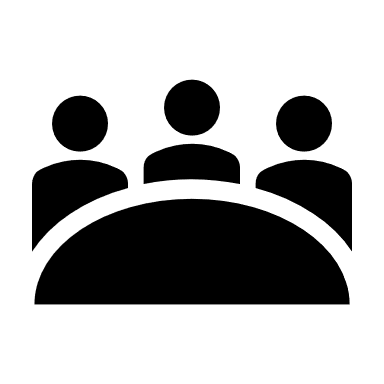
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## Team Values & Rules



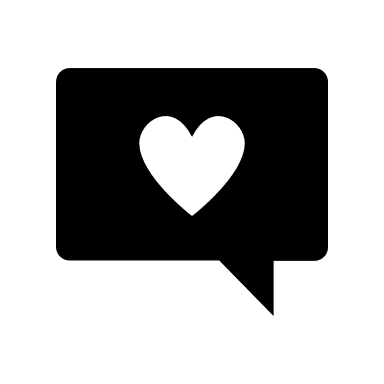
**Working Software**

Working hard to create a satisfying product.



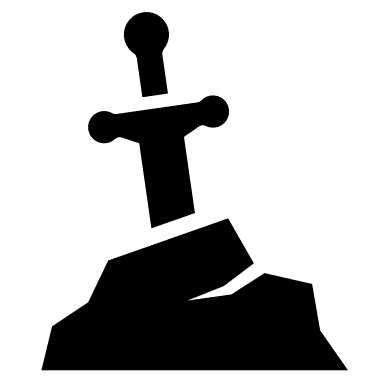
**Communication**

Frequent, effective, and honest communication.



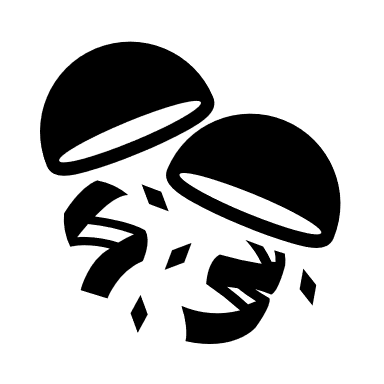
**Empathy**

Assuming the best of one another, treating each other with respect and care.



**Integrity**

Doing what is right, avoiding deceit, and owning up to mistakes.



**Celebrating the Try**

Our efforts are worthy of

recognition and celebration!

## Communication Plan

**Meetings**

We plan to have 2-week long Sprints with the following recurring meetings:

10 minute **Stand-Up** meetings every Monday, Wednesday, and Friday.

* Concerns/impediments?
* Updates to share?

1 hour **Sprint Planning** meetings every Monday at the beginning of a new Sprint.

* Assign Story Points to tasks
* Assign at least one task to each Developer
* Determine acceptance criteria for each assigned task

Half-hour **Sprint Reviews** every Friday at the end of a Sprint.

* Review each completed task based on the acceptance criteria

Half-hour **Sprint Retrospectives** every Friday at the end of a Sprint.

**Kanban Board**

We plan to use a Kanban Board through GitHub Projects. It is expected that all team members use the board to update their work. The Kanban tasks will likely become the primary place for communicating feature and project requirements and acceptance criteria of work.

**Code**

In this project, it is always preferable to over-comment rather than under-comment. As a team of relatively inexperienced developers, we need all the help we can get from frequent, verbose comments. If after the code is fully tested, we decide some comments are unnecessary clutter and want to trim them up we can.

## Problems and Escalations

If a team member has a concern with another member, they must express their concern to that member. If the problem persists, all team members must discuss the issue with each other, in face-to-face or video discussion. If a resolution still cannot be reached, members of the team may then reach out to their Senior Design advisors/professors for advice and mediation.

# The Project

The project is the creation of a desktop application that functions as a hub for link management – one place from which to organize and open all regularly visited web links, device apps, and system files.

## The Problem

Keeping track of browser bookmarks, desktop icons, windows tiles, and other “quick links” can be a tedious and frustrating task. The current options for managing links (including Chrome bookmarks and the Windows start menu) have been found lacking in functionality and convenience. For instance, Chrome bookmarks fails to allow for easy re-arranging of more than a few bookmarks (requiring one at a time drag & drop), does not allow for spatially organized links, and does not allow filtered searching through the bookmarks. Time is wasted when a user spends time searching for a link, whether it is the website they bookmarked earlier that day or a document they downloaded a week ago. This is an increasingly relevant concern as a growing number of computer users[[1]](#endnote-1) are accessing a growing number of websites and applications on a daily basis[[2]](#endnote-2).

## The Solution

The Link Manager Application will allow for convenient and customizable organization of links. This will help users spend less time searching for their saved links, and more time for doing what they want on their device. Users will be able to quickly access the Link Manager via hotkey and customize their setup to their exact desires. Organization of links will be done spatially, in groups, with tags, and with style theming. The ambition for this application is that it will also allow for syncing of link-setups across devices, have compatibility with mobile devices, and allow for the publishing of fan-made themes.

## Evaluation and Research

Upon the evaluation of current link management solutions, all were found significantly lacking. These include: Chrome bookmarks, Windows start menu, RocketDock, Tagpacker, Dewey bookmarks, Pocket, Dragdis, Dropmark, Dockey, and Station. The best current solution is the Windows start menu, which allows for spatial organization, grouping, and easy drag-and-drop re-arrangement. We will incorporate these features into our application and take inspiration from the Windows start menu. Our Link Manager application will contain more functionality/features such as tags, theming options (per link), “open with…” settings, filtered searching, and quicker web link adding.

## Project Scope

As we are using an Agile approach, our project scope will be evaluated and adjusted throughout the development process. We will create user stories, assign story points to them, and track our team’s velocity. As we progress, we will have a better idea of how much work we can complete by the end of the senior design year. Below are a list of features ordered in what we currently consider high-to-low priority.

**App Features**

* Working Application with basic functionality of the following features:
  + Links (add/edit/remove)
  + Drag-and-drop spatial-arrangement
  + Views
  + Tags
  + Searching
  + Expand-Boxes (groups)
* Extra options for opening links (admin, open with…)
* Themes & detailed customizations (color/shape/size)
* Custom hotkeys
* Chrome Extension
* Windows-integration (adding “New link…” to the right-click menu)
* Syncing between devices
* Detailed searching filters
* An easy way for others to contribute themes, customizations, etc (& share them with others)
* Custom notifications, rotating messages, reminders, and triggers
* Mobile Functionality (beginning with Android)
* Taskbar or dock/widget

## User Experience and Testing

Our target user demographic are people who access many websites, applications, and files on a regular basis. These computer users will have experience with computer interfaces yet will still vary in levels of “computer intuition.” Making our interface intuitive for as many of these users as possible is a high priority. We will conduct user testing during development.

Depending on the outcome of our user testing, we may find it worthwhile to create tutorials, glossaries, or other “how to use” documentation.

-Project Timeline (Gantt Chart)

1. Alsop, Thomas. (2020). Computer penetration rate among households worldwide 2005-2019. Source/Publisher: ITU. Release Date: November 2019 <https://www.statista.com/statistics/748551/worldwide-households-with-computer/> [↑](#endnote-ref-1)
2. Statista Research Department. (2015) Number of websites visited by new and established internet users in the UK 2014. <https://www.statista.com/statistics/322946/number-of-websites-visited-by-new-and-established-internet-users/> [↑](#endnote-ref-2)