

Searten Research management

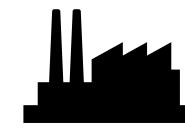
Hugo Dowd

The Project

- Completed as part of a university internship.
- 4 groups of computer science students had completed prototypes of features already but were they were not combined.
- Some user research had been conducted and was in the form of user stories.
- More research needed to be undertaken to understand the full problem space and improve the user experience of the platform.

The Problem Space

The current system of conducting academic research in Australia is inefficient and collaboration between industry, universities and researchers is desired but difficult.



Industry

- Have high-value problems needing researchers but struggle to navigate the university system and find researchers
- When they do provide funding to the university system they lack visibility of their research portfolio.



Academics

- A significant portion of their time is spent on admin for grants.
- Would like access to a wider pool of funding but are held back by admin.



Governments

- Need maximum accountability of research and ensure that it is having impact.
- Need to make decisions of where funding is allocated.

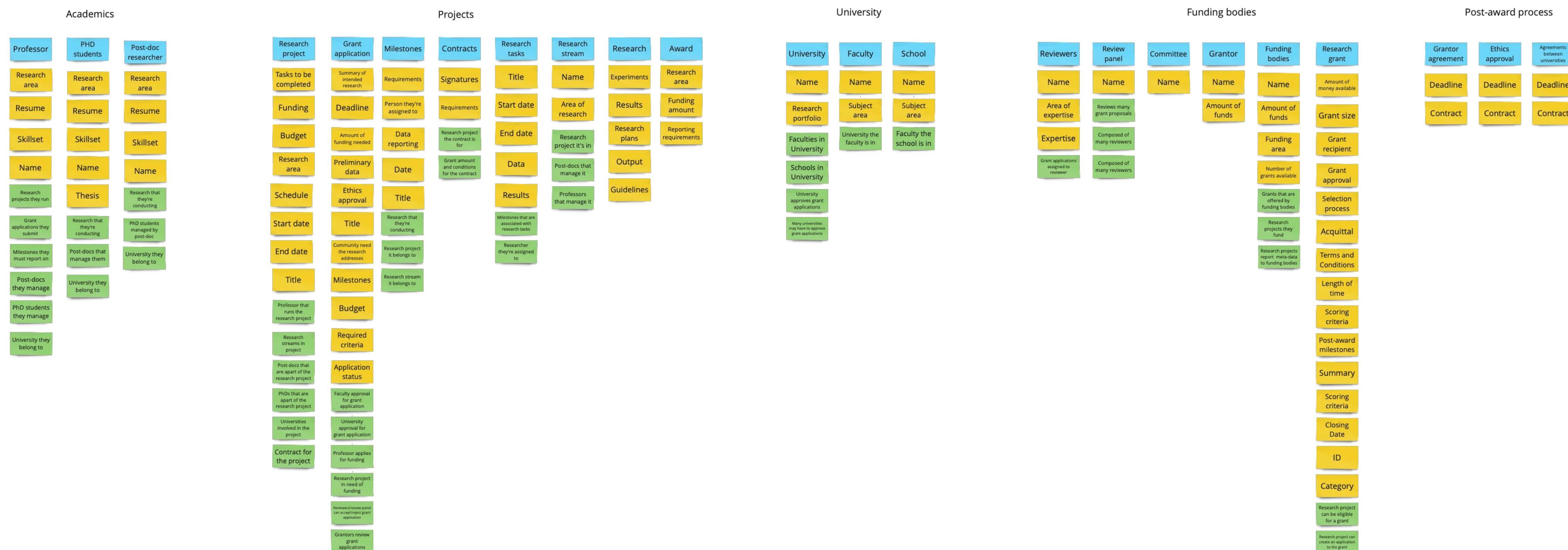


Universities

- Need to keep track of funds, researchers and students.
- Have large, overburdened administration teams.

Understanding the problem space

Mapped out the objects in the system, their attributes and actions.

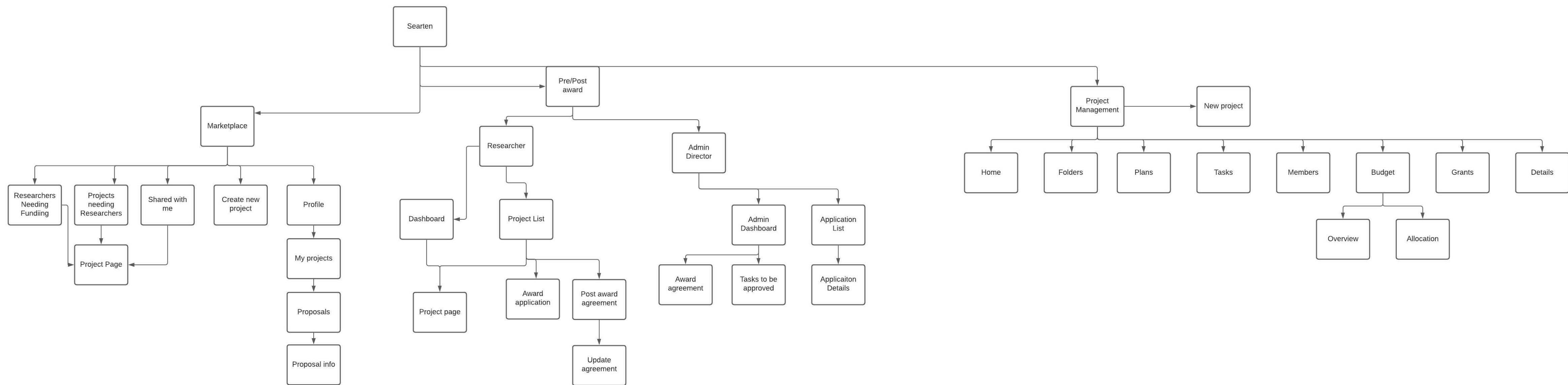


Object	Scoring Criteria	Grant announcement	Grant	Review	Grant Applications	Tasks	Questions	File	Summary	Applications	Projects	Reviewer	Terms & Conditions	Funding
Attributes	<ul style="list-style-type: none"> Description Marks Total score Reviewers 	<ul style="list-style-type: none"> Successful applicants Unsuccessful applicants Grant Owners 	<ul style="list-style-type: none"> Name Grant Owners Scoring Criteria Reviewers Review Panel 	<ul style="list-style-type: none"> Score Comment 	<ul style="list-style-type: none"> Researchers Description Answer to Questions 	<ul style="list-style-type: none"> Name Content Fields 	<ul style="list-style-type: none"> Description 	<ul style="list-style-type: none"> Name 	<ul style="list-style-type: none"> Name of grant Grant Money Start Date End Date Project Proposal Minimum Spend Maximum Spend Extra Information Summary 	<ul style="list-style-type: none"> Title Final Review Result Average Mark Reviewers Review Status 	<ul style="list-style-type: none"> Project Status Grant Name Application Name Tasks 	<ul style="list-style-type: none"> Name id 	<ul style="list-style-type: none"> Name Content 	<ul style="list-style-type: none"> Grant ID Grant Name Total Grant Money Application ID Research Name Total Received Total Used

Understanding the current processes

	Grant Creation	Grant application	Grant Selection	Grant Award
Persons involved	Funding bodies, Grantor, Grant administrator	Professors, Researchers, University Administrators	Funding bodies, Grantor, Reviewers, Review Panel	Funding bodies, Grantor, Grant administrator, Professors, University Administrators, Contract officer
Tasks	<ul style="list-style-type: none"> • Create application criteria. • Scoring Matrix is created for applicant assessment • Create application form. • Share grant 	<ul style="list-style-type: none"> • Create grant application • Get application approved by university/multiple university processes. • Sign-off by university delegates • Send off application to funding body 	<ul style="list-style-type: none"> • Applications are reviewed. • Applications are scored • A ranked list is created. • Ranked list is evaluated by a committee • Applications are allocated funding if successful 	<ul style="list-style-type: none"> • Grantor uploads post-award milestones • Researchers fulfil requirements • University approvals process • Agreement created. • Agreement sent to institutions • Agreement reviewed • Creation of final agreement • Agreement sign-off
Contents	<ul style="list-style-type: none"> • Amount of money available • Grant Description • Size of grants offered • Terms and Conditions • Length of grants offered • Scoring criteria • Closing date • Research area • Eligibility criteria 	<ul style="list-style-type: none"> • Summary of intended research • Research objectives • Amount of funding needed. • Project budget • Number of research students involved • Preliminary data • Ethics approval • Socio-economic objectives • Field-of-research • Community need criteria • Faculty approval • Internal University Requirements • Research milestones • Researcher participants <ul style="list-style-type: none"> • Chief investigators • Partner Investigators • Organisation participants 	<ul style="list-style-type: none"> • Grant applications up for review. • Scoring Criteria • Selected Grants 	<ul style="list-style-type: none"> • Post-award requirements • University approvals • Contracts • Agreements • Post-award status

Mapping out the current sitemap



Component library

Buttons

<code>button</code>	border-radius: 4px; /* primary-200 */ padding: 8px 12px; /* Body-text */ color: #FFFFFF;	Primary Button - Used to emphasize the most important option
<code>button</code>	border-radius: 4px; /* primary-300 */ padding: 8px 12px; /* Body-text */ color: #FFFFFF;	Primary Button - Hover
<code>button</code>	border-radius: 4px; padding: 8px 12px; border: 1px solid #484848; /* text-200 */	Secondary Button (transparent) - used for an option that requires less emphasis
<code>button</code>	border-radius: 4px; padding: 8px 12px; border: 1px solid #484848; /* text-200 */ background: hsla(0, 0%, 20%, 0.1);	Secondary Button -hover
<code>button</code>	border-radius: 4px; padding: 8px 12px; border: 1px solid #FA4338; /* warning-200 */ color: #FA4338;	Button Warning - Used as a warning, the user pressing this button may have consequences
<code>button</code>	border-radius: 4px; padding: 8px 12px; /* Grey-300 */ background: #C8C7C7; /* text-100 */ color: #8F8F8F;	Disabled - used to indicate that this option is not available

Greys

#F3F3F3	#D9D9D9	#C8C7C7	#B3B3B3
---------	---------	---------	---------

Text

#636363	#484848	#323232
---------	---------	---------

Primary

#DBEBFA	#6AADEC	#1561A7
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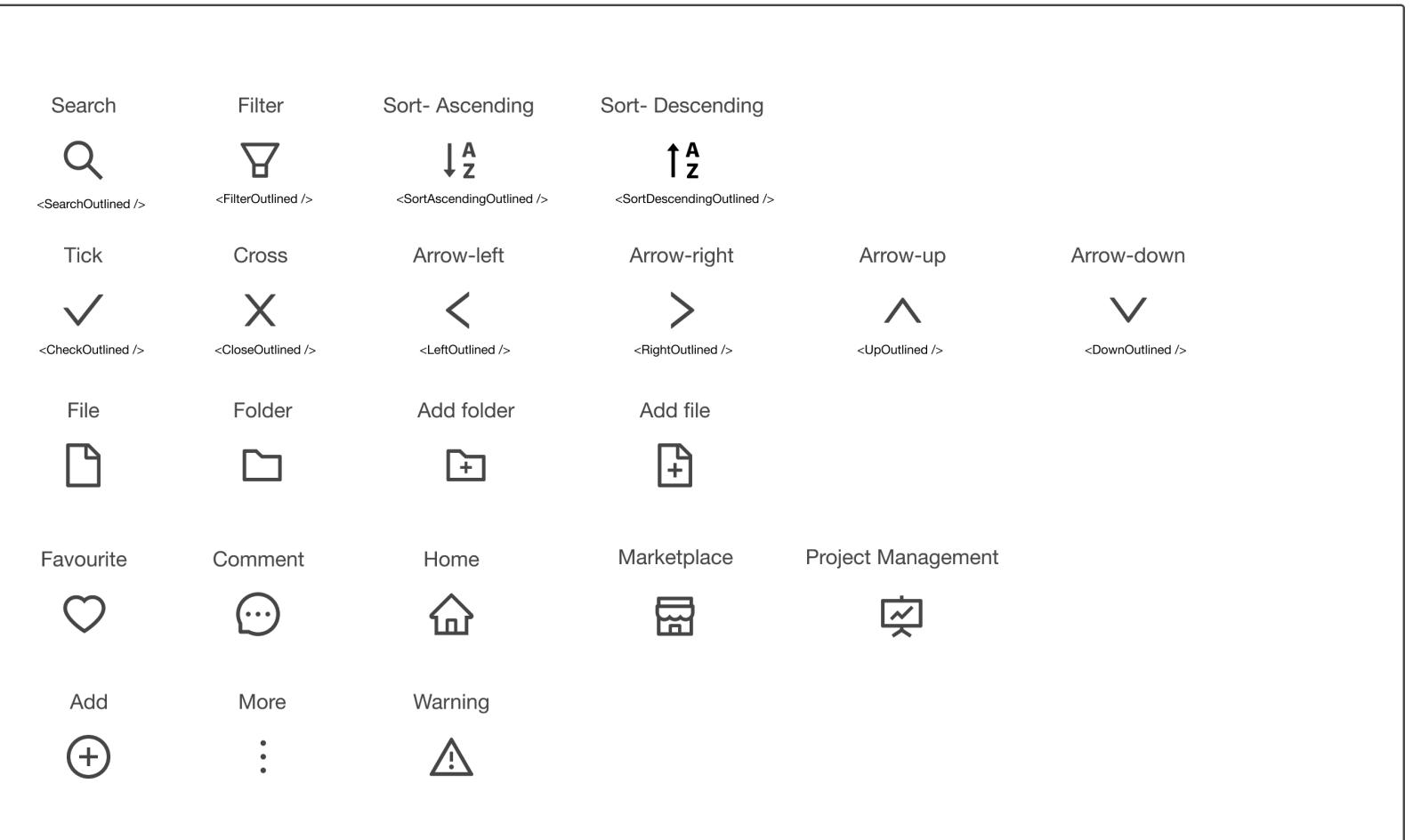
Warning/error State

#FDB5B0	#FA4338	#B80F05
---------	---------	---------

Success State

#CAFCE4	#0DEE82	#08914F
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Normal Icons



Heads are used in order of the importance of the content

Heading 1

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 64px;
line-height: 76px;
color: #323232;

Heading 2

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 52px;
line-height: 62px;
color: #323232;

Heading 3

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 40px;
line-height: 48px;
color: #484848

Heading 4

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 32px;
line-height: 38px;
color: #484848

Heading 5

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 20px;
line-height: 28px;
color: #484848

Used to differentiate important text in small places

ALL CAPS

font-family: Helvetica Neue;
font-style: normal;
font-weight: bold;
font-size: 16px;
line-height: 24px;
text-transform: uppercase;
color: #2A8BE4;

Body text

font-family: Helvetica Neue;
font-style: normal;
font-weight: normal;
font-size: 16px;
line-height: 24px;
color: #323232;

Small label text

font-family: Helvetica Neue;
font-style: normal;
font-weight: medium;
font-size: 12px;
line-height: 24px;
color: #323232;

Smaller label text

font-family: Helvetica Neue;
font-style: normal;
font-weight: medium;
font-size: 10px;
line-height: 24px;
color: #323232;

User research

- Spoke to researchers, heads of department, university administrators. Demonstrated prototypes as well as explored their current pain points and workarounds.
- **Professors** need to keep track of research funding, applications and acquittals while managing a research team. Hacking together solutions through word, excel etc. results in problems with visibility and version control, there is currently no purpose built software. Funding has different requirements for applications, they change often and are hard to keep track of.
- **Administrators** need to prioritise grants, get a wide view of the deadlines that are coming up and the requirements of different grants.
- **Research collaboration** between universities is extremely difficult as each university has their own system and processes for managing approvals and keeping track of their status is difficult.

Prototype

Searten



Kierra Rhiel Madsen ▾

SPACES

- [Projects](#)
- [Marketplace](#)

PROJECTS

- [Planner](#)
- [Drive](#)
- [Chat](#)
- [Notes](#)

SETTINGS

- [Settings](#)

Projects [+ New Project](#)

Active

Project	Status	Completion	
Test Bio	Pending head of school approval	36% complete	<div style="width: 36%; background-color: #2e7131;"></div> >
3D Printed Prosthetics	Project report due in 10 days	48% complete	<div style="width: 48%; background-color: #2e7131;"></div> >
Robotics for Agriculture	DVCR review	48% complete	<div style="width: 48%; background-color: #2e7131;"></div> >
Dental Ceramics	Pending Contract	36% complete	<div style="width: 36%; background-color: #2e7131;"></div> >
Aerospace Materials	Pending Admin Approval	48% complete	<div style="width: 48%; background-color: #2e7131;"></div> >

Completed

Archived Project	Completed: 6th February 2021	>
Archived Project	Completed: 6th February 2021	>

Prototype

Searten

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SPACES

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SETTINGS

- Settings

TaskBar May 2022 D W M

Test Bio Project

Stream 1

1	This is what a task added...	1	2	3	4	5	6	7	8	9	10	11	12
2	This is what a task added would be called												

Stream 1

3	Milestone:	1	2	3	4	5	6	7	8	9	10	11	12
4	This is what a task added would be called												

+ Add Task

Different Project

1	This is what a task added would be called	1	2	3	4	5	6	7	8	9	10	11	12
1	Milestone												
3	This is what a task added would be called												
4	This is what a task added would be called												
5	This is what a task added would be called												

+ Add Task

Prototype

The screenshot shows a prototype of a cloud-based project management and storage platform. The interface is clean and modern, featuring a sidebar on the left and a main content area on the right.

Header: The top left corner features the platform's logo, "Searten". The top right corner shows a user profile picture of "Kierra Rhiel Madsen" with a dropdown arrow.

Left Sidebar:

- SPACES:** Projects, Marketplace
- PROJECTS:** Planner, Drive (highlighted in blue)
- SETTINGS:** Settings

Right Content Area:

Drive

Projects:

- Test Bio (PROJECT): 12 members, 122 files, 1.2 GB used of 25gb
- 3D Printed Prosthetics (PROJECT): 12 members, 122 files, 1.2 GB used of 25gb
- Robots for agriculture (PROJECT): 12 members, 122 files, 1.2 GB used of 25gb

Recently Opened:

- Experiment 1 (SHEET): Test Bio, 12 members, Last edited 5 days ago
- results (DOC): Test Bio, 12 members, Last edited 5 days ago
- milestone report (DOC): Test Bio, 12 members, Last edited 5 days ago
- Project Admin (FOLDER): Test Bio, 122 files
- project plan (DOC): Test Bio, 12 members, Last edited 5 days ago
- budget (SHEET): Test Bio, 12 members, Last edited 5 days ago
- Research Projects (FOLDER): Test Bio, 122 files

Search and Create: A search bar at the top right with the placeholder "search..." and a "+ Create" button.

Prototype

Searten

Kierra Rhiel Madsen

SPACES

Projects

Marketplace

PROJECTS

Planner

Drive

Chat

Notes

SETTINGS

Settings

Marketplace

Marketplace

search...

Funding

Research

Equipment

filter

sort

Search for “research” in Research and Funding

Title of the project

FUNDING

Maria Culhane

\$100,000

Longer description of what the research is and what it involves

Title of the project

PROJECT

Maria Culhane

\$100,000

Longer description of what the research is and what it involves

Title of the project

FUNDING

Maria Culhane

\$100,000

Longer description of what the research is and what it involves

Title of the project

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\$100,000

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Title of the project

PROJECT

Maria Culhane

\$100,000

Longer description of what the research is and what it involves

Title of the project

FUNDING

Maria Culhane

\$100,000

Longer description of what the research is and what it involves

Prototype

Searten

Kierra Rhiel Madsen ▾

SPACES

Projects

Marketplace

PROJECTS

Planner

Drive

Chat

Notes

SETTINGS

Settings

Marketplace

search...

Funding

Research

Equipment

Back To Results

FUNDING

\$21, 200 / 100, 000 raised

Title of the project | 12 members in this project

Created By Maria Culhane 12 December 2021

Contact Share Fund

What the Research is about

Another Section

Another Section

Another Section

Another Section

Marketplace

search...

Funding

Research

Equipment

Back To Results

FUNDING

\$21, 200 / 100, 000 raised

Title of the project | 12 members in this project

Created By Maria Culhane 12 December 2021

Contact Share Fund

What the Research is about

Another Section

Another Section

Another Section

Another Section

Prototype

Searten

< Test Bio

PLACES

- Dashboard
- Planner
- Chat

ADMIN

- Australian Research Council

DOCUMENTS

- Drive
- Notes

SETTINGS

- Members
- Project Data

Drive

Projects / Test Bio

+ Create

search...

Project	Collaborators	Files	Last Edited
Project Admin	12 Collaborators	123 Files	
Research Projects	12 Collaborators	123 Files	
Doc Name	12 Collaborators	123 Files	18th May

Prototype

Searten

Kierra Rhiel Madsen ▾

◀ Test Bio

Project Members - Test Bio

Member List Organisation Structure search...

PLACES

- Dashboard
- Planner
- Chat

ADMIN

- Australian Research Council

DOCUMENTS

- Drive
- Notes

SETTINGS

- Members
- Project Data

Member	Role	Streams	⋮	⋮
Davis Levin	Professor	Stream 1 Stream 2 Stream 3 +2	⋮	⋮
Vickie Witting	Researcher	Stream 1 Stream 2 Stream 3	⋮	⋮
Mr. Ernesto Hilll	Researcher	Stream 2 Stream 3	⋮	⋮
Dave Hayes	Researcher	Stream 3	⋮	⋮
Paityn Baptista	Administrator	Stream 3	⋮	⋮

Prototype

Searten

Kierra Rhiel Madsen

< Test Bio

Streams Messages Q +

Stream 1 12 NEW

This was the last message that was sent from this chat or from this group 8:42am

Stream 2 0 NEW

This was the last message that was sent from this chat or from this group 12/4/2022

PLACES

Dashboard Planner Chat

ADMIN

Australian Research Council

DOCUMENTS

Drive Notes

SETTINGS

Members Project Data

Test Bio

12 members 8+ Invite

Talan Korsgaard • 10:57am

Brandon Septimus • 10:57am

Haylie Bergson • 10:57am

Today 10:57am

10:57am

10:57am

10:57am

10:57am

Type a message

Send

Prototype

Searten

< Test Bio

Streams Messages

PLACES

Dashboard

Planner

Chat

ADMIN

Australian Research Council

DOCUMENTS

Drive

Notes

SETTINGS

Members

Project Data

Talan Korsgaard

0 NEW

This was the last message that was sent from this chat or from this group

12/4/2022

Brandon Septimus

0 NEW

This was the last message that was sent from this chat or from this group

12/4/2022

Haylie Bergson

12 NEW

This was the last message that was sent from this chat or from this group

8:42am

Talan Kor

0 NEW

This was the last message that was sent from this chat or from this group

12/4/2022

Talan Korsgaard

10:57am

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris mollis lacus in aliquam elit turpis eget.

Talan Korsgaard • 10:57am

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris mollis lacus in aliquam elit turpis eget.

Talan Korsgaard • 10:57am

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris mollis lacus in aliquam elit turpis eget.

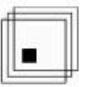
Talan Korsgaard • 10:57am

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris mollis lacus in aliquam elit turpis eget.

Type a message

Send

Prototype

 Searten

[◀ Test Bio](#)

PLACES

- [Dashboard](#)
- [Planner](#)
- [Chat](#)

ADMIN

- Australian Research Council

DOCUMENTS

- [Drive](#)
- [Notes](#)

SETTINGS

- [Members](#)
- [Project Data](#)

Test Bio (2nd March 2021 - 2nd March 2022)

Grant Reporting Deadline In 10 days

TASKS FOR THIS MILESTONE

Literature Review	3 days
Diane Padberg	Assigned by: Amos Bechtelar
Data Collection and Experiments	4 days
Marcus Dokidis	Assigned by: Amos Bechtelar
Data Analysis and Results Alignment	6 days
Anika Westervelt	Assigned by: Amos Bechtelar
Paper - First Draft	8 days
Phillip Vetrovs	Assigned by: Amos Bechtelar

RECENTLY COMPLETED

Task name	3rd March
Ann Gouse	
Task name	4 days
Marcus Dokidis	Assigned by: Amos Bechtelar
Data Analysis and Results Alignment	6 days

Budget - total: \$230 000

\$100 000

Project completion

76%

Project Members

 Davis Levin Researcher	Task that they're working on
 Madelyn Siphron Researcher	Task that they're working on
 Lincoln Carder Researcher	Task that they're working on
 Miracle Rosser Post-doc	Task that they're working on

Prototype

Searten

Kierra Rhiel Madsen ▾

Test Bio

Australian Research Council Linkage | TEST BIO PROJECT

Due 20th Feb, 2021

PLACES

- Dashboard
- Planner
- Chat

ADMIN

Australian Research Council

DOCUMENTS

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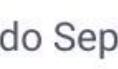
SETTINGS

- Members
- Project Data

View Application

Pre approval — **Awards** — **Contract** — **Budget**

Application Information

Project Description	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vel sed sit lorem massa urna nibh vestibulum lorem. Nisl sit id dignissim amet consectetur. Amet ornare feugiat tellus nisi. Volutpat eros, vulputate semper commodo.				
Project Members	 Kierra Rhiel Madsen 1	 Charlie Bothman 1	 Alfredo Septimus 2	 Ashlynn Lubin 2	+ 12 more

Pre-award approvals IN PROGRESS

AMPC  In Progress

-  Kierra Rosser  not started
-  Leo Siphron  not started
-  Tatiana Bergson  finished
-  Jakob Lipshutz  finished

LEAD APPLICANT

USYD  Finished