Design Document

Introduction:
This document outlines the information that is required to start the development phase of the Scrummy 1.0 project, this document includes the information regarding the selected technologies, architecture, domain model, and software design.

1. **Selected Technologies**

   Throughout the project, the following tools were used to help us create Scrummy 1.0.

- **Frontend**:
  Qt Design Studio is a tool for designers to make apps and machines look good and work smoothly. They can import designs and add text, pictures, and animations to create the final look.

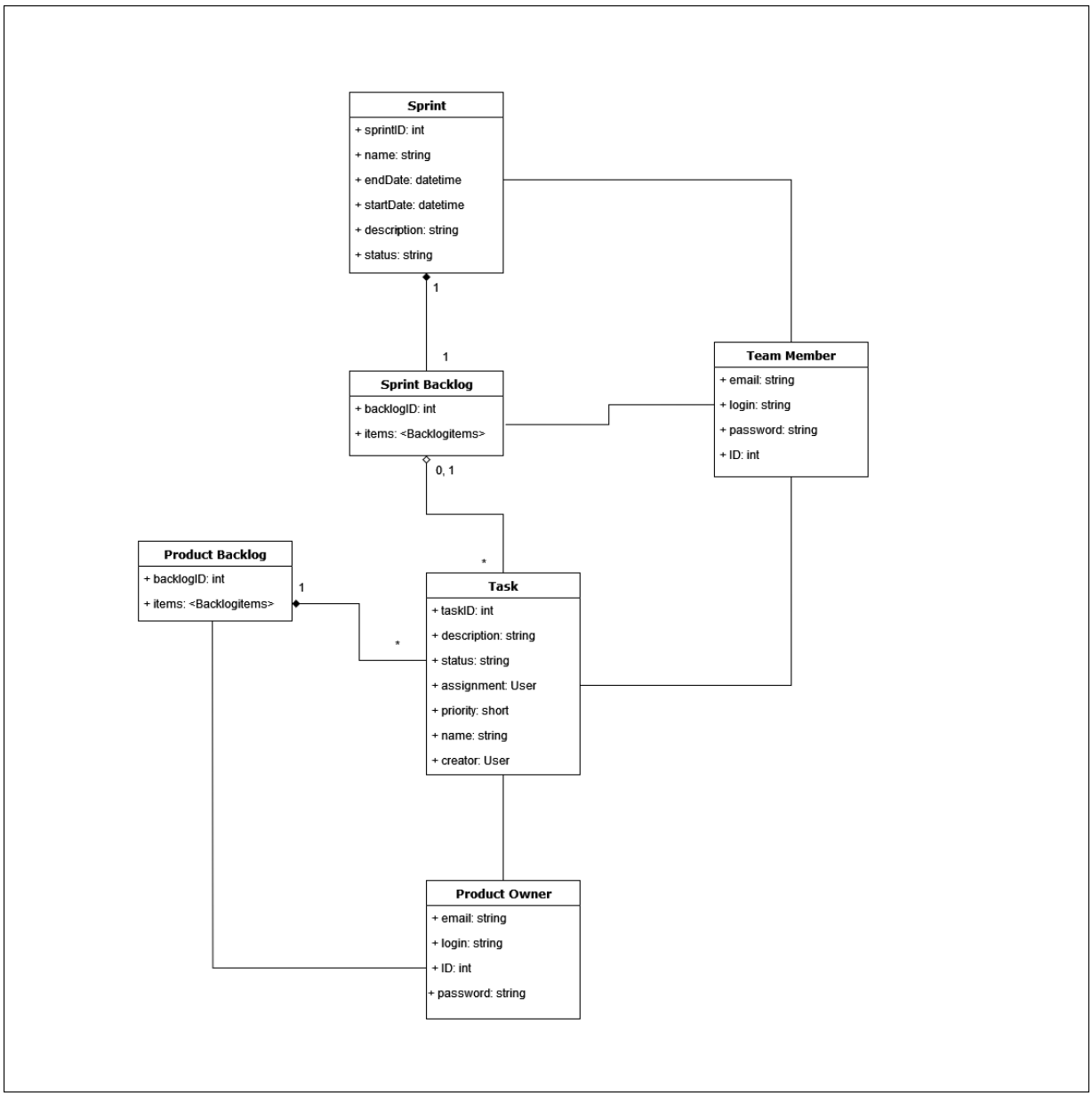
- **Backend**:
  Qt Creator is an IDE that allows developers to work with UI/UX(user interfaces and user experiences) designs created in Qt Design Studio, simplifying the integration of backend logic.

- **Database**:
  MySQL Workbench 8.0 CE is a versatile visual tool for database professionals, offering data modelling, SQL development, and a range of administrative features for server setup, user management, backups, and more.

- **Version Control**:
  GitHub is a web-based platform that leverages Git for version control, supporting software development and offering features like bug tracking, task management, and wikis for projects. It facilitates collaboration among developers for code and project management.

- **Other Tools and Libraries**:
    a. **Jira** is a software tool used for project management and issue tracking, commonly used in software development teams to plan, track, and manage tasks and issues throughout the development process.
    b. **Microsoft Word** is a program for making and editing written documents, like letters or essays.
    c. **Adobe Photoshop** is a software for editing photos and designing graphic images, enabling users to create, edit, and manipulate images and digital art.
    d. **Eclipse Modelling Tools (Papyrus)** is an open-source project that offers a seamless environment for working on UML and SysML models.

2. Domain Model

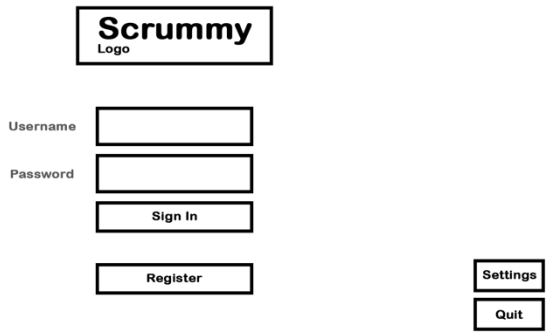


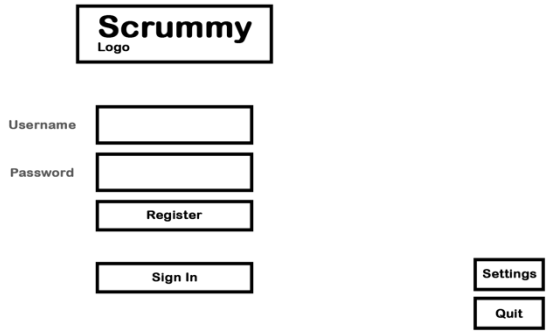
Class	Description	Data Type - Variable Name
Team Member	**1.** Can assign tasks **2.** Can take tasks from Product Backlog to Sprint Backlog	1. String email 2. String login 3. String password 4. Int ID
Product Backlog	1. **Class Sprint** has a relationship where one backlog contains any number of sprints 2. **Class Task** has a relationship where one backlog contains any number of tasks	1. Int backlogID **2. Class Object Sprint{...}** **3. Class Object Task{...}**
Sprint	1. **Class SprintBacklog** is an attribute object of Sprint class 2. When deleted, SprintBacklog is also deleted, but not the tasks	1. Int sprintID 2. String name 3. Datetime endDate 4. Datetime startDate 5. String description 6. String status
Sprint Backlog	**1. Has Tasks objects**	1. Int backlogID 2. Task[] backlogItems
Task	1. Is directly dependent on Product Backlog object 2. Can be assigned to a Sprint Backlog 3. Is created by Product Owner	1. Int taskID 2. String description 3. String status 4. Short priority 5. String name 6. TeamMember assignment

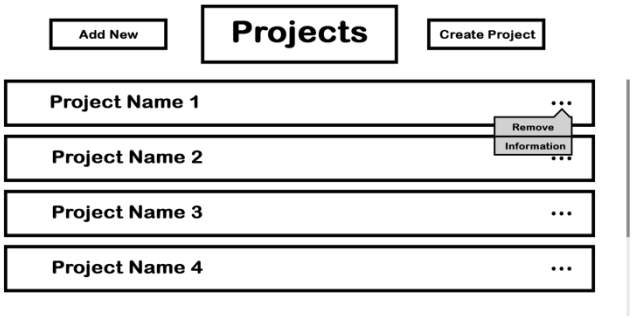
3. Software Design

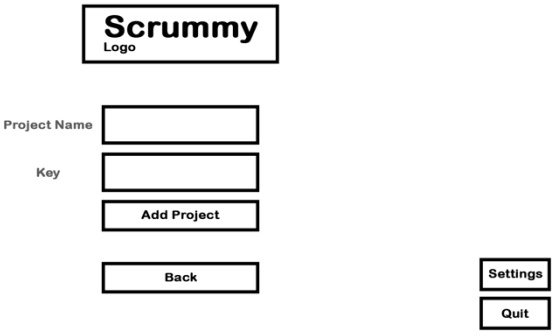
The system design outlines the structure and relationships between various classes and their attributes for a project management and collaboration tool. The purpose of this design is to facilitate project management, task tracking, and collaboration among users by providing functionalities related to user roles, sprint management, task tracking, project boards, event management, and confluence page creation and management. It organizes and stores information relevant to these aspects to support efficient project execution and communication.

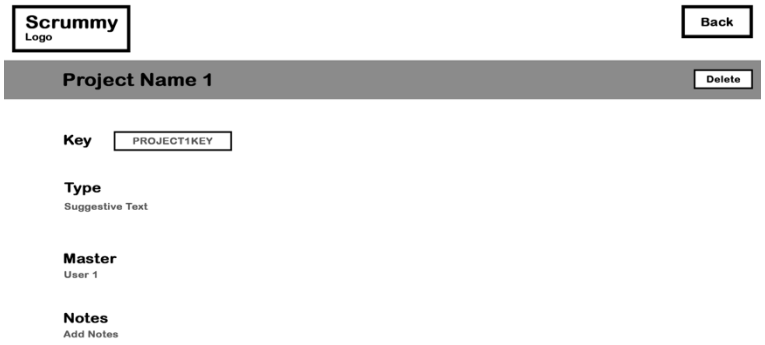
Software Design – High-fidelity Wireframes

Sign In Wireframe	
<u>Purpose:</u> Account Authorization <u>Content/ Buttons:</u> Username field – space for input Password field – space for input Sign In button – existing account and correct input → Projects Overview Wireframe Register button → Register Wireframe Settings button → Settings Wireframe Quit button – exit application	<u>How to get here:</u> User opens application 

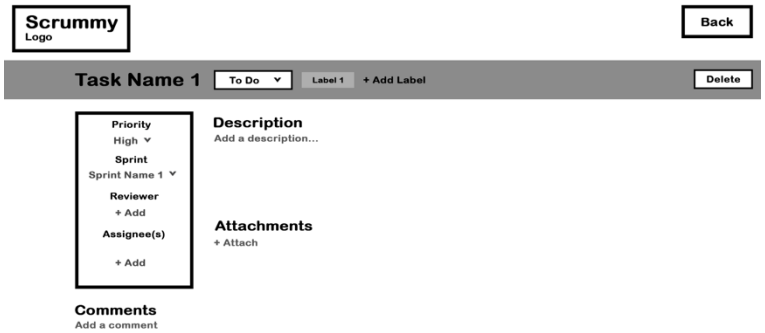
Register Wireframe	
<u>Purpose:</u> Account Registration <u>Content/ Buttons:</u> Username field – space for input Password field – space for input Sign In button → Sign In Wireframe Register button – creates user account Settings button → Settings Wireframe Quit button – exit application	<u>How to get here:</u> User clicks Register button 

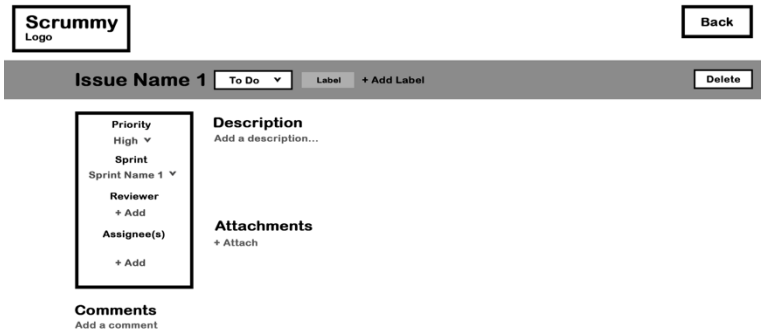
Projects Overview Wireframe	
<u>Purpose:</u> Manage Projects <u>Content/ Buttons:</u> Projects List vertically scrollable – each element contains a dropdown menu • Remove button – removes project from view (not visible to Owner) • Information button → Create Project Wireframe Project Name interactive → Task Board Wireframe Add New button → Add Project Wireframe Create Project button → Create Project/Project Information Wireframe	<u>How to get here:</u> User is authorized/signs in 

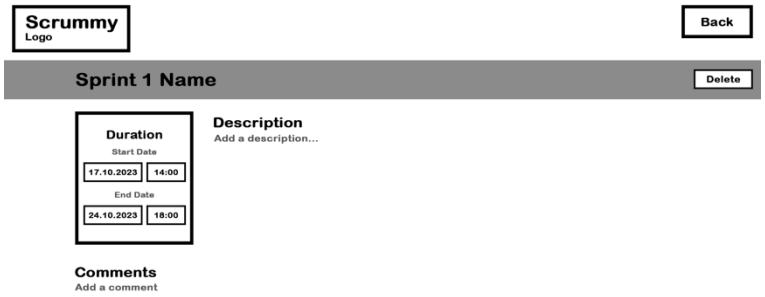
Add Project Wireframe	
<u>Purpose:</u> Add an existing project using the name and the key <u>Content/ Buttons:</u> Project Name field – space for input Key field – space for input Add Project button – existing project and correct input → Projects Overview Wireframe Back button → Projects Overview Wireframe Settings button → Settings Wireframe Quit button – exit application	<u>How to get here:</u> User clicks Add New button 

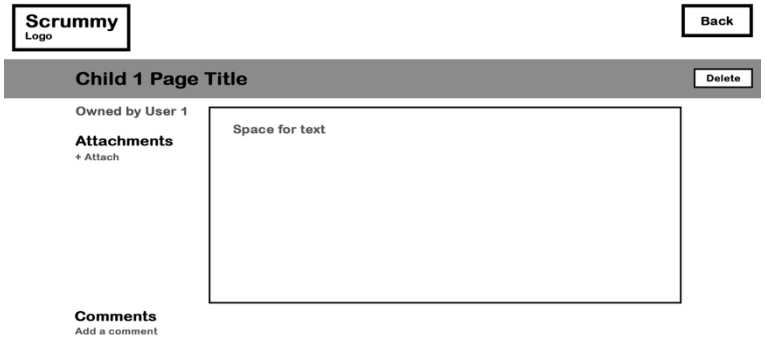
Create Project/Project Information Wireframe	
<u>Purpose:</u> Create a New Project/Project Information <u>Content/ Buttons:</u> (interactives only work for Project Owner) Top Bar [grey space] Project Name field – space for input Key field – space for input Type field – space for input Master – shows username of Project Owner Notes field – space for input Delete button – deletes the project (only visible for Project Owner) → Projects Overview Wireframe Back button → Projects Overview Wireframe	<u>How to get here:</u> User clicks Create Project button/Project Name 

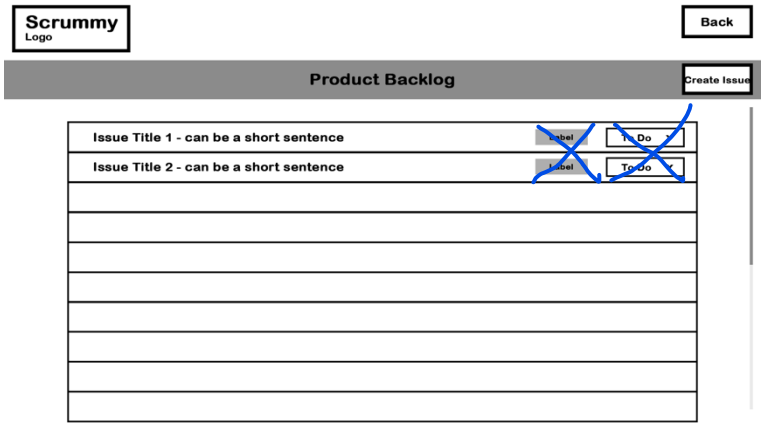
Settings Wireframe	
<u>Purpose:</u> Adjust application settings <u>Content/ Buttons:</u> Dark Mode switch – switches between light-mode and dark-mode Back button → Previous Wireframe	<u>How to get here:</u> User clicks Settings button

Task Page Wireframe	
<u>Purpose:</u> Edit/Create new task <u>Content/ Buttons:</u> Back button → Task Board Wireframe Top Bar space • Task Name field – space for input • Status Dropdown menu • Label list – can be edited (up to 3) • Add Label button • Delete button – deletes task → Task Board Wireframe Information Card • Priority Dropdown menu [High, Medium Low] • Sprint Dropdown menu • Reviewer Add button – can add one user Assignee(s) Add button – can add users Description text field Attach button – can attach files and images Comments text field and list	<u>How to get here:</u> User clicks Task Card interactive/New Task button in Task Board Wireframe 

Issue Page Wireframe	
<u>Purpose:</u> Edit/Create new issue <u>Content/ Buttons:</u> Back button → Backlog/Product Backlog Wireframe Top Bar space • Issue Name field – space for input • Status Dropdown menu • Label list – can be edited (up to 3) • Add Label button • Delete button – deletes task → Backlog/Product Backlog Wireframe Information Card • Priority Dropdown menu [High, Medium Low] • Sprint Dropdown menu • Reviewer Add button – can add one user Assignee(s) Add button – can add users Description text field Attach button – can attach files and images Comments text field and list	<u>How to get here:</u> User clicks Create Issue/Issue Title in Backlog Wireframe/Product Backlog Wireframe 

Sprint Page Wireframe	
<u>Purpose:</u> Edit/Create new sprint <u>Content/ Buttons:</u> Back button → Sprints Wireframe Top Bar space • Sprint Name field – space for input • Delete button – deletes task → Sprints Wireframe Information Card • Duration Start Date fields – two spaces for input [DD.MM.YYYY, HH:MM] • Duration End Date fields – two spaces for input [DD.MM.YYYY, HH:MM] Description text field Comments text field and list	<u>How to get here:</u> User clicks Create Sprint/Sprint Title in Sprints Wireframe 

Confluence Page Wireframe	
<u>Purpose:</u> Edit/Create new confluence page <u>Content/ Buttons:</u> Back button → Sprints Wireframe Top Bar space • Page Title field – space for input • Delete button – deletes task → Confluence Wireframe Owned by User Attach button – can attach files and images Text field Comments text field and list	<u>How to get here:</u> User clicks Add Child button/Edit button in Confluence Wireframe 

Product Backlog Wireframe	
<u>Purpose:</u> Product Backlog overview <u>Content/ Buttons:</u> Back button → Backlog/Product Backlog Wireframe Top Bar space • Product Backlog • Create Issue button → Issue Page Wireframe Issue List – vertically scrollable • Issue Title interactive → Issue Page Wireframe • Label Status Dropdown menu	<u>How to get here:</u> User clicks Product Backlog button in the Backlog Wireframe 

The following wireframes feature a Top Bar Navigation design which keeps the same layout after switching between screens.

<u>Purpose:</u>

User-friendly layout for fast navigation between screens.

<u>Content/ Buttons:</u>

<u>Scrummy Logo</u>

Task Board button → Task Board Wireframe

Backlog button → Backlog Wireframe

Calendar button → Calendar Wireframe

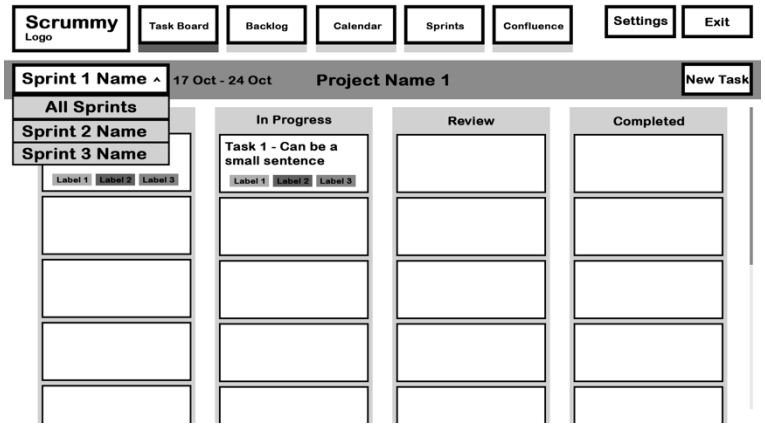
Sprints button → Sprints Wireframe

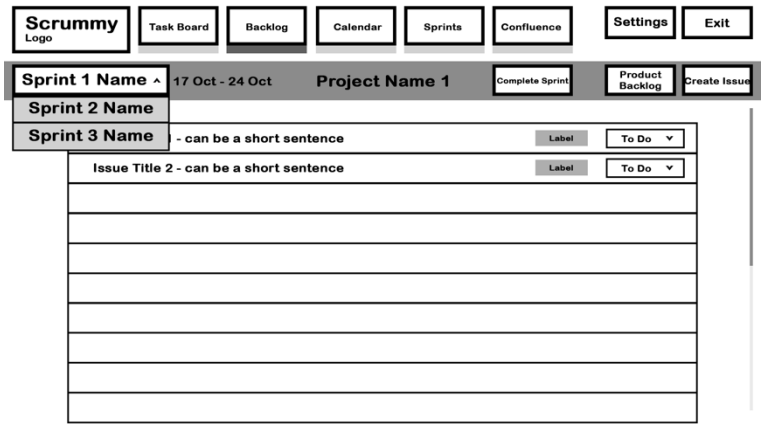
Confluence button → Confluence Pages Wireframe

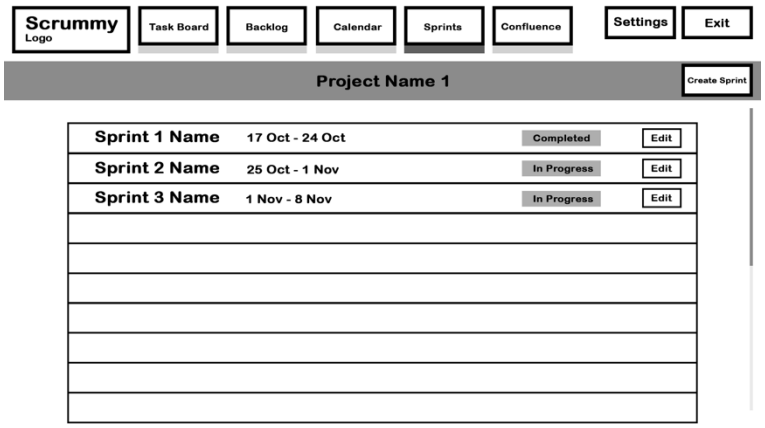
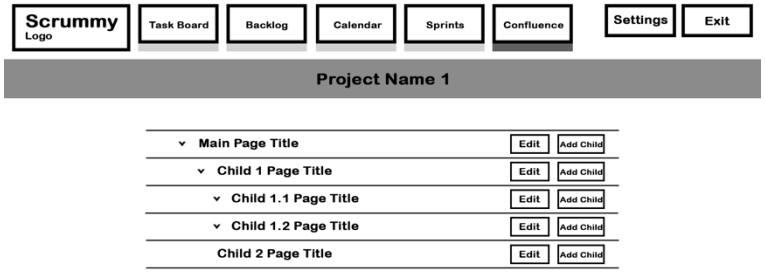
Settings button → Settings Wireframe

Exit button → Projects Overview Wireframe

Task Board Wireframe [Top Bar Navigation]	

<u>Purpose:</u>
Manage and Overview for the Task Board
 	
<u>Content/ Buttons: (under the</u> Top Bar Navigation)
Top Bar space
• Sprint Selection dropdown menu – can select individual sprints/all sprints → Content changes depending on the selected sprint
• Sprint Date Duration
• Project Name
• New Task button → Task Page Wireframe
Four Kanban-style columns - vertically scrollable list
• Status (To Do, In Progress, Review, Completed)
• Task Card interactive → Task Page Wireframe
  ▪ Task Title
  ▪ Up to three labels
	<u>How to get here:</u>
	User clicks [Top Bar Element] Task Board button
	
	 

Backlog Wireframe	
<u>Purpose:</u> Manage and Overview for the Backlog <u>Content/ Buttons: (under the</u> Top Bar Navigation) Top Bar space • Sprint Selection dropdown menu – can select individual sprints → Content changes depending on the selected sprint • Sprint Date Duration • Project Name • Complete Sprint – updates the sprint status to "Completed" • Product Backlog button → Product Backlog Wireframe • Create Issue button → Create Issue Wireframe Issue List vertically scrollable – each element contains • Issue Title interactive → Create Issue Wireframe • Issue Label • Dropdown menu (To Do, In Progress, Review, Completed)	<u>How to get here:</u> User clicks [Top Bar Element] Backlog button 

Sprints Wireframe	
<u>Purpose:</u> Manage and Overview for Sprints <u>Content/ Buttons: (under the</u> Top Bar Navigation) Top Bar space • Project Name • Create Sprint button → Sprint Page Wireframe Sprint List vertically scrollable – each element contains • Sprint Name • Sprint Date Duration • Status Label [In Progress, Completed] • Edit button → Sprint Page Wireframe	<u>How to get here:</u> User clicks [Top Bar Element] Sprints button 

Confluence Wireframe	
<u>Purpose:</u> Manage and Overview for Confluence Pages <u>Content/ Buttons: (under the</u> Top Bar Navigation) Top Bar space • Project Name Pages List – each element can have a dropdown menu containing subpages • Page Name • Edit button → Confluence Page Wireframe • Add Child button – creates a subpage for the selected page → Confluence Page Wireframe	<u>How to get here:</u> User clicks [Top Bar Element] Confluence button