



Inside Pacific but better

(System Design Document)

COMP 195
13th September 2021

Team

Alan Barragan (a_barragan1@u.pacific.edu)

Christopher Fines (c_fines@u.pacific.edu)

Project Website

<https://github.com/comp195/senior-project-implementation-uop-inside-pacific-but-better>

Instructor

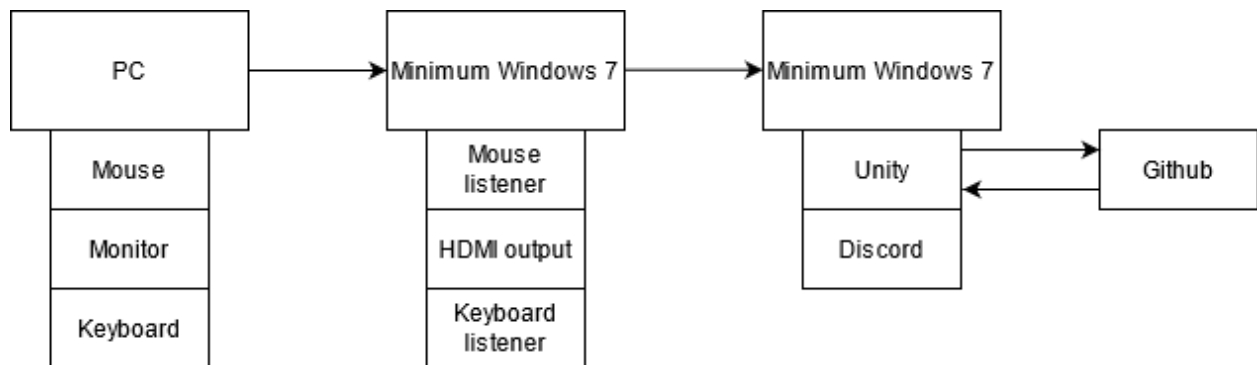
Dr. Canniff

Table of Contents

System Architecture	3
Hardware, Software, and System Requirements	4
Class Diagram	5
Class Specifications	6
Interaction Diagrams	9
Design Considerations	11
User Interface Design	12
Glossary	14
References	15

System Architecture

- Software modules
 - Minimum Windows 7
- Hardware components
 - Keyboard
 - Mouse
 - Monitor Display
- User interface
 - Mouse listener
 - Keyboard Listener
 - Display output
- Interfaces to external systems
 - Discord (for communication)
 - GitHub



Hardware, Software, and System Requirements

Hardware Requirements:

- CPU: X64 architecture with SSE2 instruction set support
- Graphics API: DX10, DX11, and DX12-capable GPUs

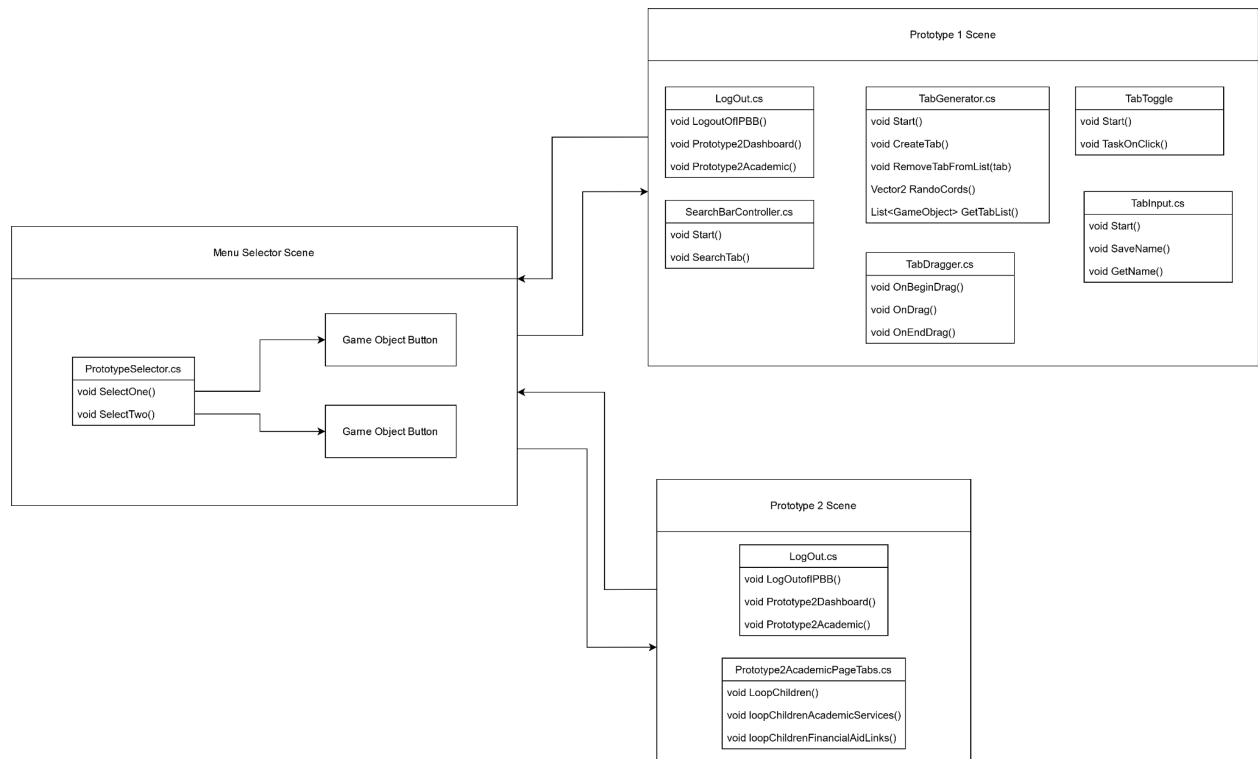
Software Requirements:

- Unity Version 2020.3.17f1 LTS

System Requirements:

- OS: Minimum Windows 7 (SP1+) or Windows 10 (64-bit versions only)

Class Diagram



Zoomable link: <https://imgur.com/kAAWGYt>

Class Specifications

DisclaimerToggle.cs:

- Void ShowDisclaimer()
 - To be used to show disclaimer when user tries to access an unimplemented feature
- Void HideDisclaimer()
 - To be used to hide disclaimer once user chooses to toggle off the disclaimer

LogOut.cs:

- Void LogoutofIPBB()
 - To be used to log out of the prototype and return to the selection screen
- Void Prototype2Dashboard()
 - Loads the Prototype2 home screen
- Void Prototype2Academic()
 - Loads the Prototype2 academic page

SearchBarController.cs:

- Void Start()
 - Default implemented function from Unity
- Void SearchTab()
 - Finds the specified tab the user types into the InputField variable in Prototype1 and hides any that do not pertain to the contents specified in the InputField

TabDragger.cs:

- Void OnBeginDrag()
 - Gets the current position of the tab once grabbed by the user's mouse
- Void OnDrag()
 - Moves the tab to the current position of the user's mouse while the user is holding it down
- Void OnEndDrag()
 - Releases the tab from the user and sets the new location to where it was last left

TabGenerator.cs:

- Void Start()
 - Creates a new list of tabs
- Void CreateTab()
 - Instantiates a tab prefab onto the scene
- Void RemoveTabFromList(tab)
 - Removes tab from list once the user deletes it
- Vector2 RandomCords()
 - Returns random coordinates for the tab to spawn on screen
- List<GameObject> GetTabList()
 - Returns the list of tabs

TabInput.cs:

- Void Start()
 - Instantiates InputField variable and adds listeners for OnClick events
- Void SaveName()
 - Saves the user's input and sets it to the tab name
- String GetName()
 - Returns the set name of the tab

TabToggle.cs:

- Void Start()
 - Adds listeners for OnClick events
- Void TaskOnClick()
 - Deletes tab from the list of tab GameObjects and from the scene

Prototype2AcademicPageTabs.cs:

- Void Update()
 - Sets up dictionary for pages
- Void LoopChildren()
 - Loops through all children within the parent button pressed and hides every page that is not corresponding to the button
- Void LoopChildrenAcademicServices()
 - Loops through all children within the parent button pressed and hides every page that is not corresponding to the button within the Academic page

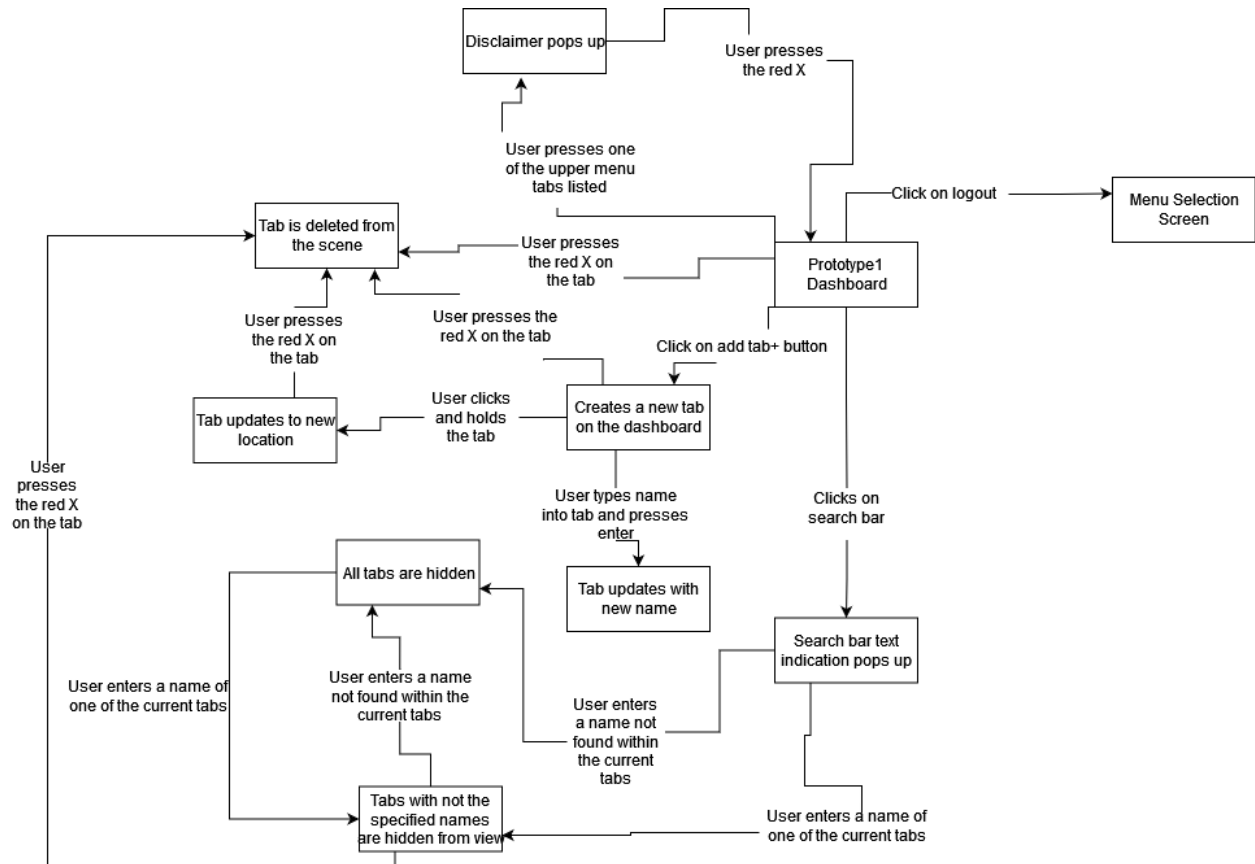
- Void LoopChildrenFinancialAidLinks()
 - Loops through all children within the parent button pressed and hides every page that is not corresponding to the button within the FinancialAid page

PrototypeSelector.cs:

- Void SelectOne()
 - Loads Prototype1 onto the scene
- Void SelectTwo()
 - Loads Prototype2 onto the scene

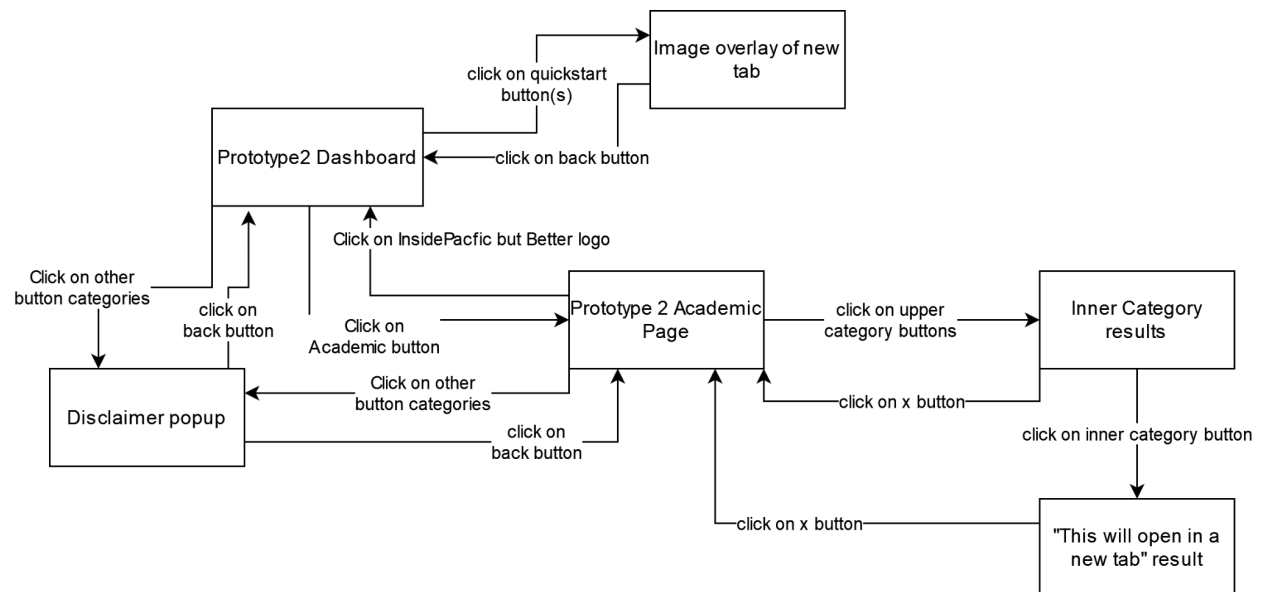
Interaction Diagrams

Prototype 1:



Zoomable link: <https://imgur.com/a/idTHFJf>

Prototype 2:



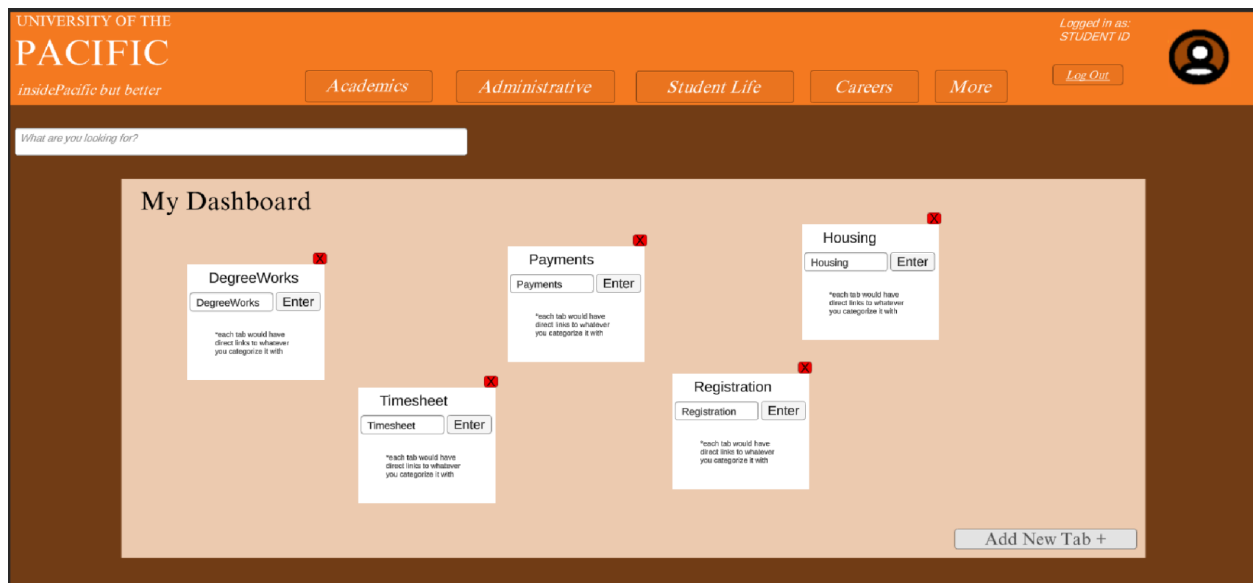
Zoomable link: <https://imgur.com/cUsSWsS>

Design Considerations

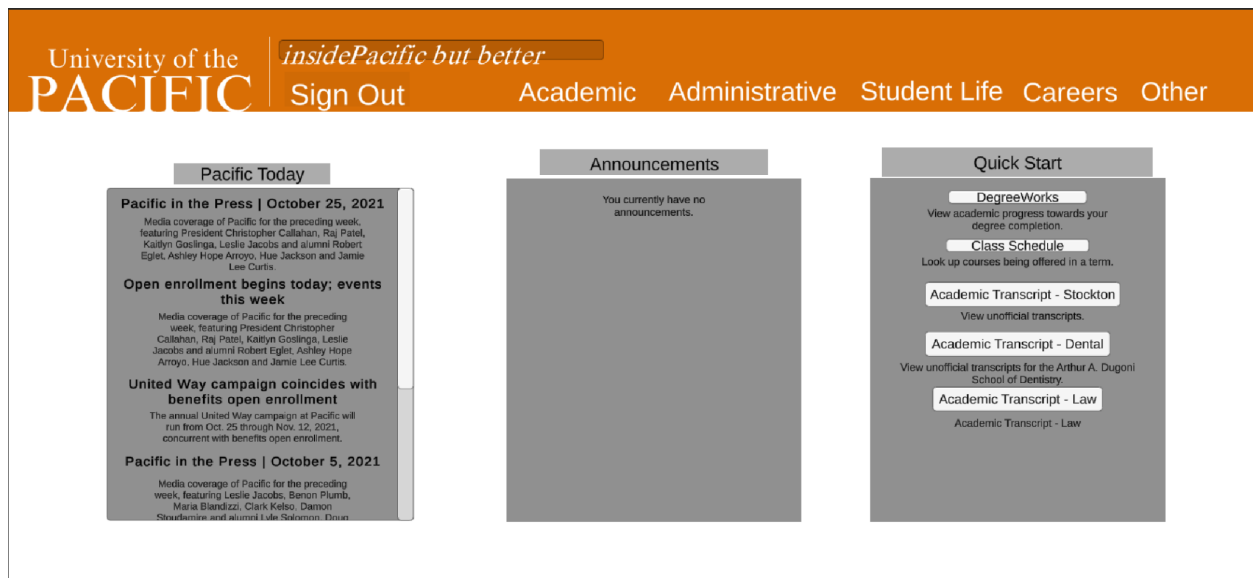
- Prefab of each collapsible window containing links and texts
- Collapsibles
 - Text displayed within each block can be minimized
- Draggable and positionable text blocks
 - Each block is able to be placed in whatever order the user desires within the respective page
- Search bar
 - Specific text blocks can be searched through keywords
- Dashboard
 - Customizable home page where any text block from inside can be added
- Preset Side Windows
 - To potentially be made into separate scenes to allow for smoother navigation

User Interface Design

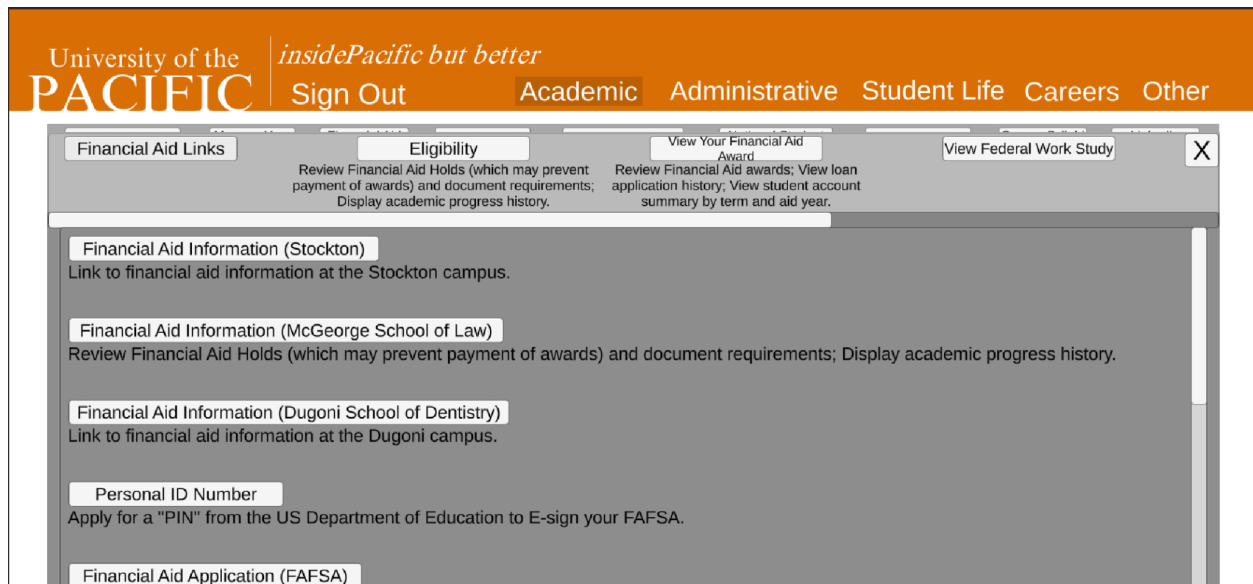
User Interface for Prototype1 - Dashboard



User Interface for Prototype2 - Homepage



User Interface for Prototype2 - Academic Page



Glossary

GameObject: The base class for all entities in Unity's scenes

Scene: A run-time data structure for *.unity files

Prefabs: A method to create, configure, and store presets for GameObjects

C# Scripts: A type of component that controls the behaviors of GameObjects using the C# language

Collapsible: A type of button that when selected shows a drop down of information

Draggable: A behavior that allows for an object to be moved with the mouse when the user holds down left-click

Dashboard: A graphical user interface that displays at-a-glance views of key indicators to a particular objective or business process

References

- Technologies, U. (n.d.). *Creating and using scripts*. Unity. Retrieved September 11, 2021, from <https://docs.unity3d.com/Manual/CreatingAndUsingScripts.html>.
- Technologies, U. (n.d.). *System requirements for unity 2020 LTS*. Unity. Retrieved September 10, 2021, from <https://docs.unity3d.com/Manual/system-requirements.html>.