

# Lena Yeoh

## Roles

Senior UX Design Manager

## Responsibilities

Managing a team of UX and Visual designers to support design directions for shipping the flagship product, Visual Studio.

Driving usability studies, design directions and implementation for client tools in windows native, web, and cross mobile platform.

Manage corresponding guidelines and UX patterns for the design and developer division.

Leading the asset production and iconography team at large, and supporting the automated image services with mapping services for icons, fonts, illustrations, and branded collaterals.

Partner with VP, directors, and lead program managers to drive design direction and decision for new product growth.

## Skills

User Experience design

Interaction design

Visual design

Motion graphic/Animation design

Concept and Design development

Front-end Web development

Project Management

Team Management

# Developer Activity Workspace

## Audience

Front-end app developers.

## Goals

Define the front end app developer workflow.

Identify the pain points developers went through and explore potential solution to optimize developers workflows to make developers focus and be more productive.

Identify how developers currently display activities in a single or multi monitor environment.

## Project involvement

Ideation.

Concept development.

UX/UI design.

Interaction and prototyping.

Research collaboration.

## What is 'Activity Workspace'?

A productive space that encapsulate a series of task-focused activities (design-develop-debug-preview) using a single or multi-monitors.

## Motivations

- Focus on content
- Focus on task at hand
- Minimize distractions
- Seamless integration between tasks

## Challenges

- How to enable a productive and meaningful design-develop-debug-preview workspace?
- What are the most common primary tasks?
- How do we support working environment on a single vs. multi-monitors?

# Design Principles

Fit-to-purpose environment

Create room to grow

Right tool at the Right time

Do more with less

Partner alignment

## Fundamental Building Block

Task Indicator : Task title which links to the Outspace

Quick Task Switch : Quick launch UI

Task Centric Area : Contextual space

Contextual Switch : Contextual Switching UI

## Activity Space Story

Find & Resolve Bug

Open project

App construction space

Code & Design spaces

Functional & Visual Debugging

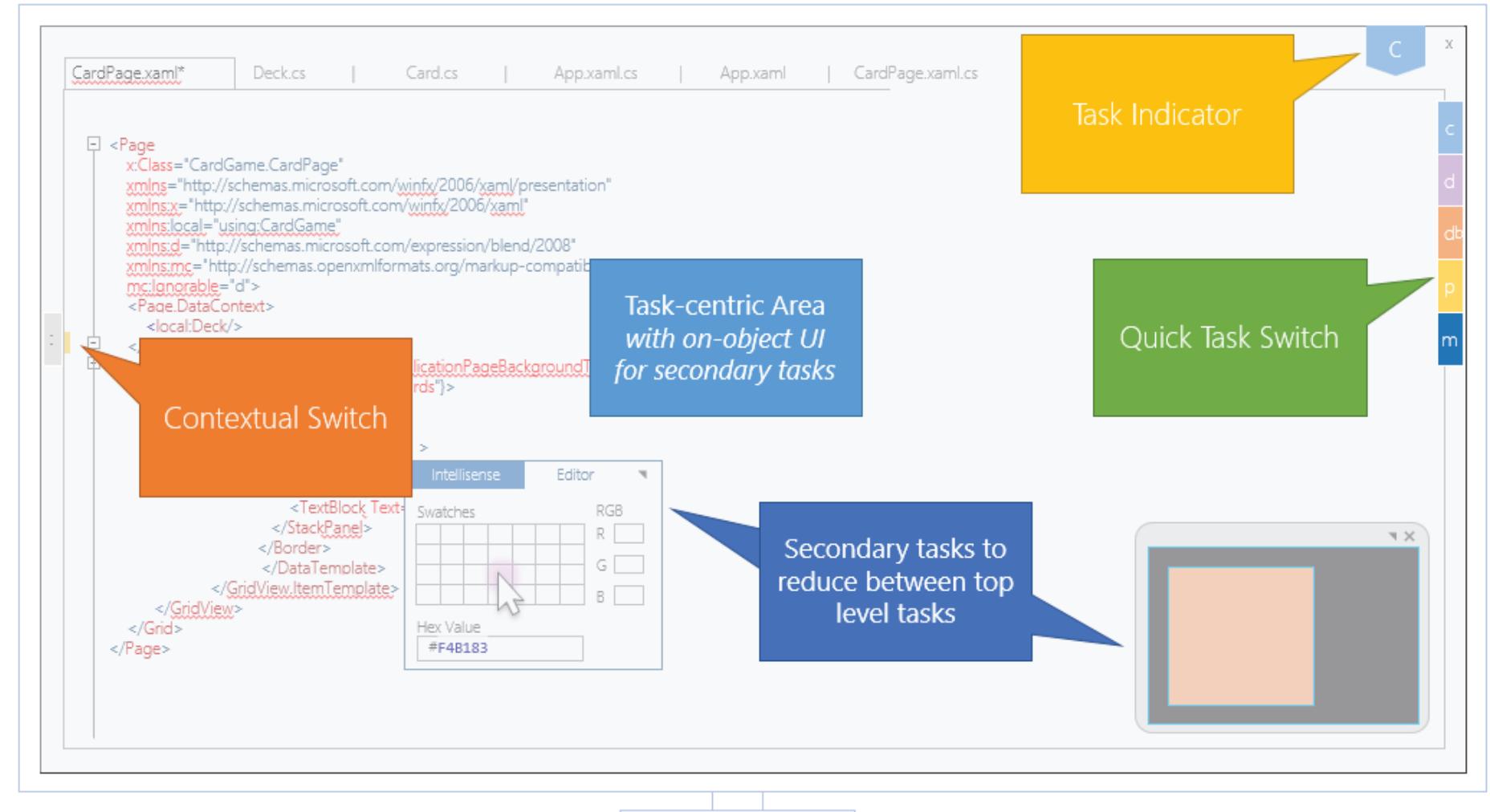
Diagnose space

Multi-instance

Focus view on content

Create & Respond to Code Review

Framework: Fundamental Building Block with Coding space



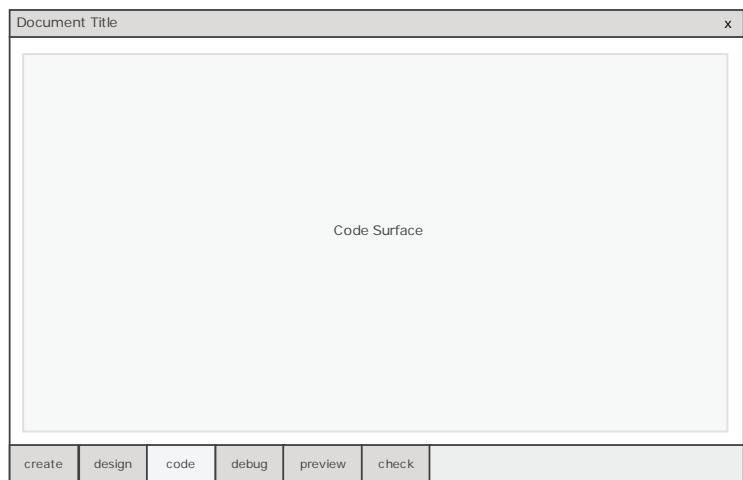
# Early Explorations

Explore a variation of code development surface  
Combine all tools into one  
Workspaces/perspectives  
Multiple connected, uniquely focused apps  
Task-focused environments in a single IDE

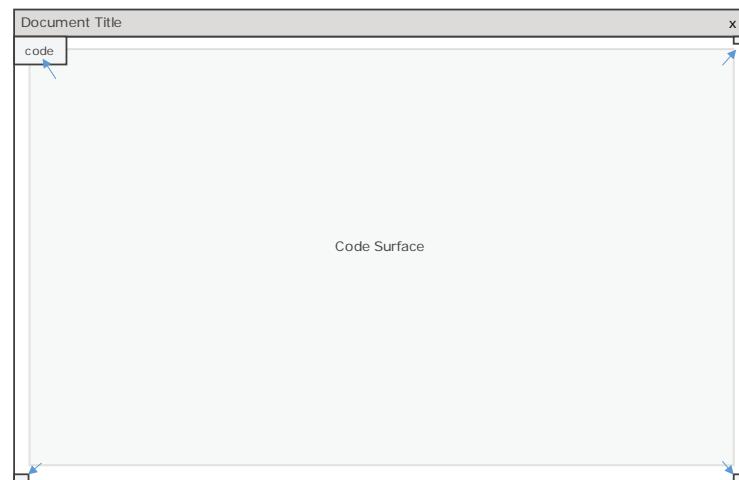
BLADED LAYOUT



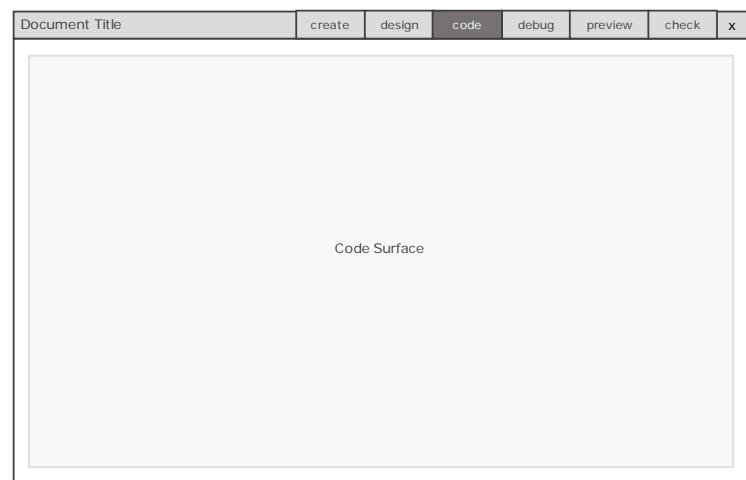
WINDOWS TASKBAR LAYOUT



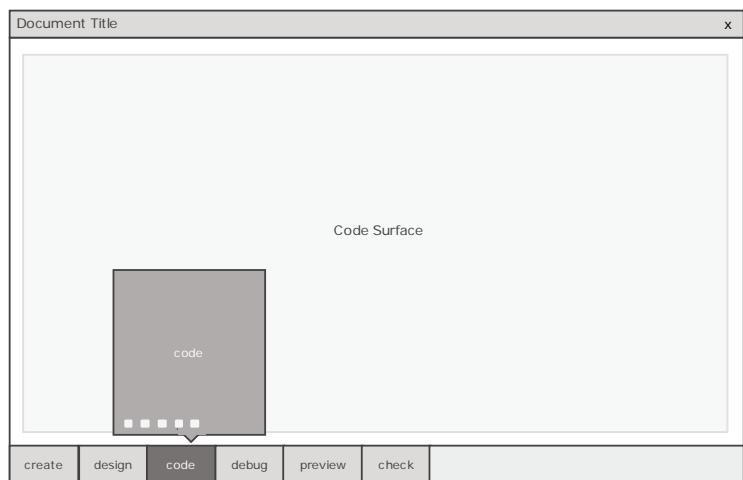
HOT CORNERS LAYOUT



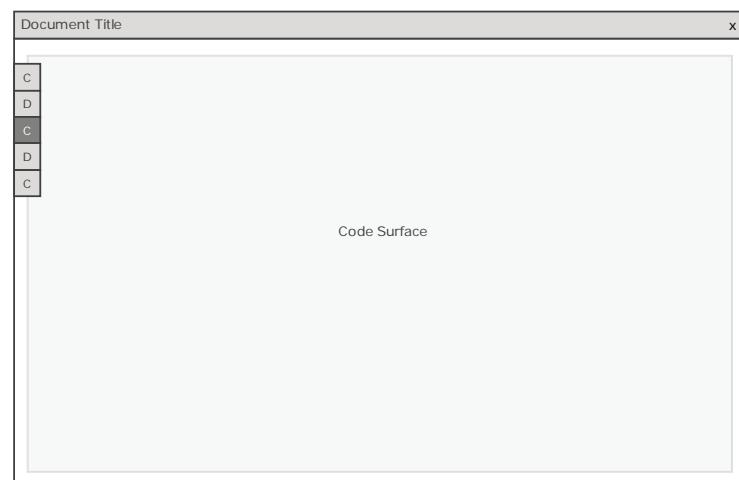
LOGICAL PATH LAYOUT



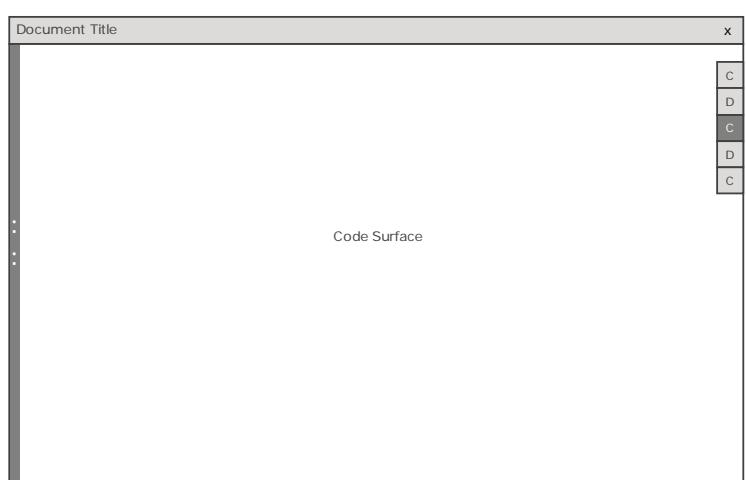
OS PEEK LAYOUT



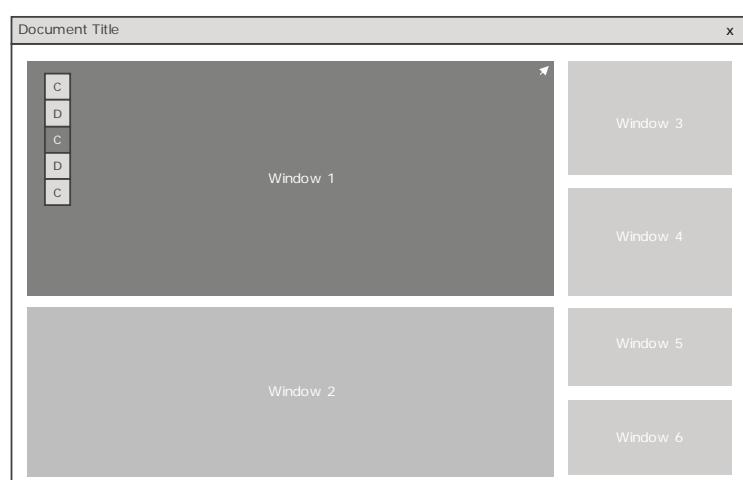
DOCKABLE NUGGET LAYOUT



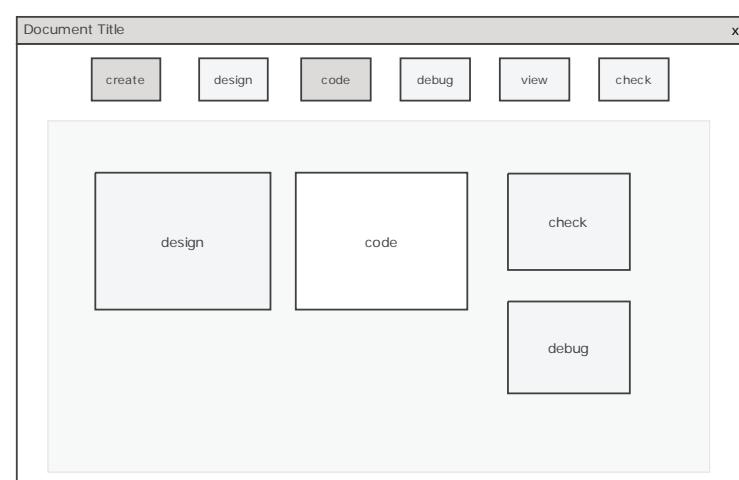
FLIP PAGE LAYOUT



TILE LAYOUT



DASHBOARD LAYOUT

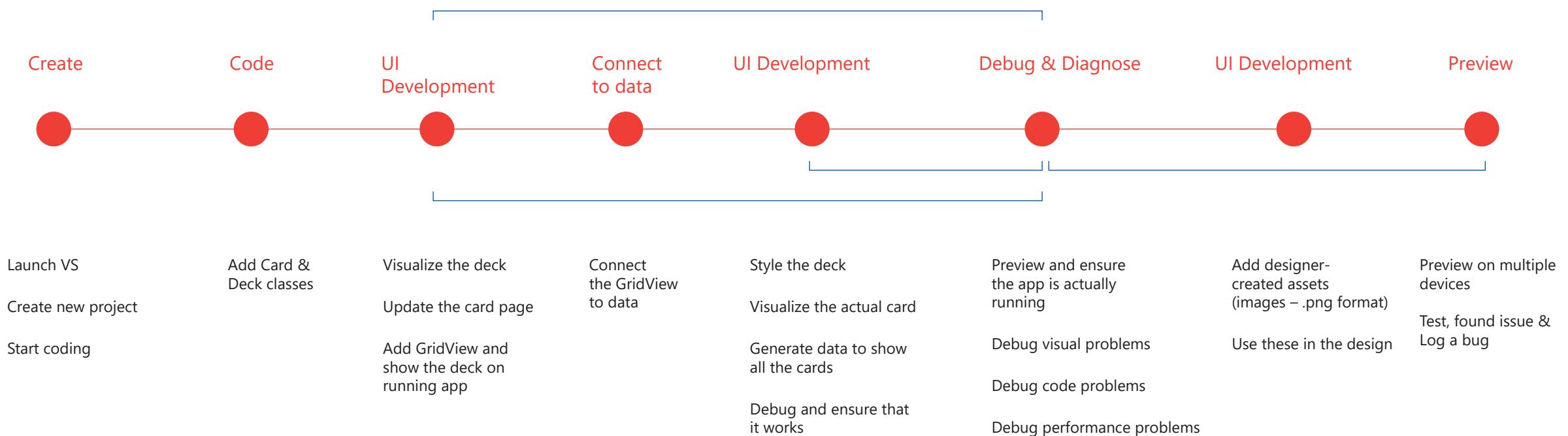


# End-to-end development workflow on app building

The goal is to understand and define the end-to-end developer's workflow of building an app.

From our investigation, we found:

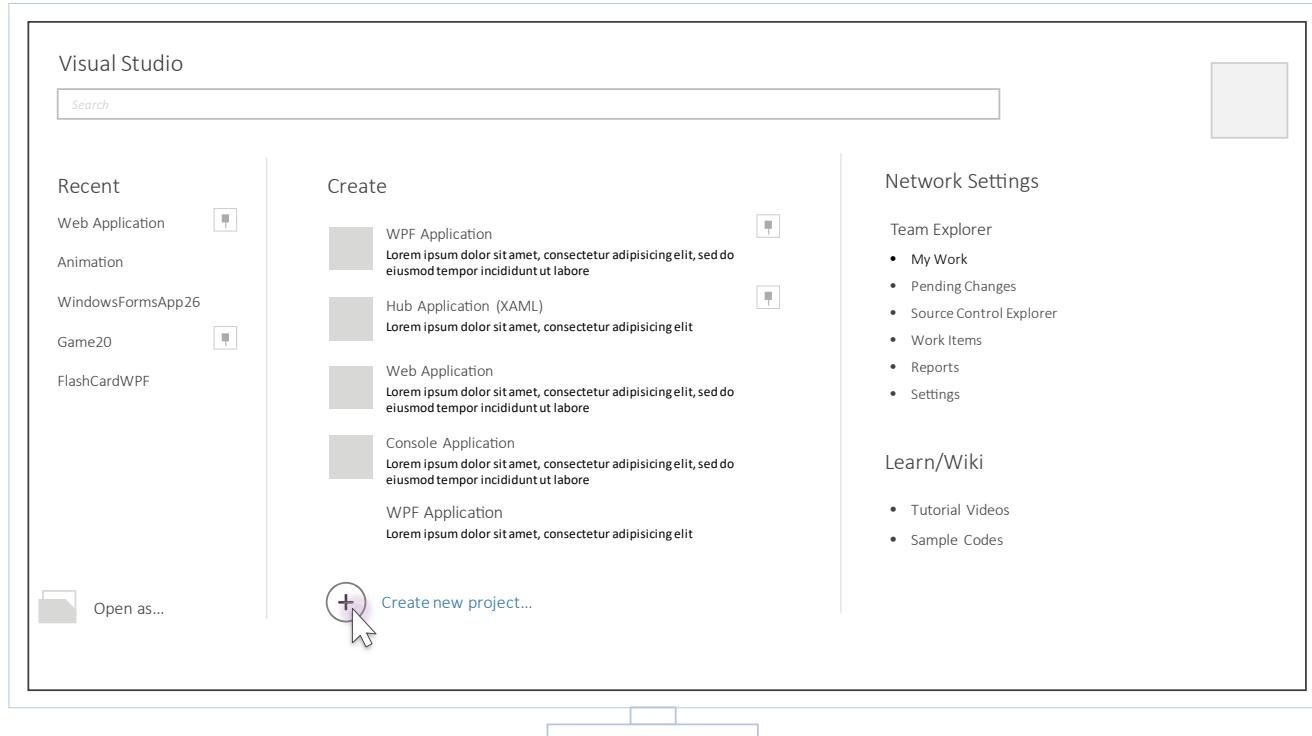
- it is an iterative process
- new capabilities are a challenge to be found
- constrained with existing UI metaphors
- the application doesn't use the screen real-estate effectively
- fractured workflow



# Wireframe

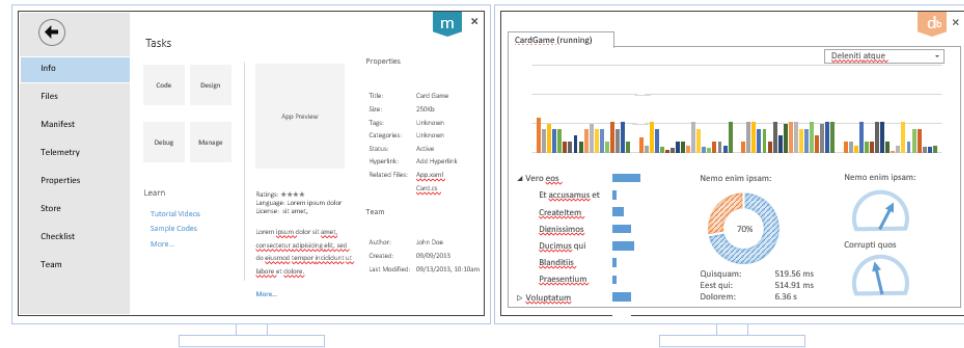
Wireframes of 'end-to-end' workflow are produced based on our investigation in the studies.

## LAYOUT: START YOUR PROJECT



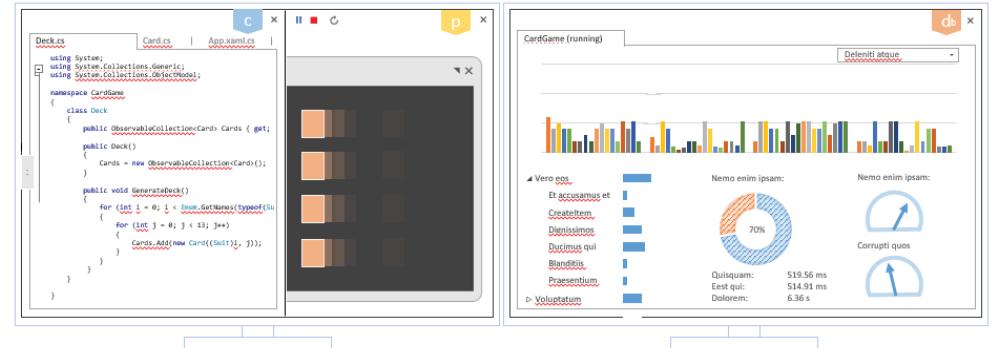
## LAYOUT: DUAL MONITORS

M1. Manage your app M2. Debugging



## LAYOUT: DUAL MONITORS WITH SPLIT SCREENS

M1. Code and Preview M2. Debugging

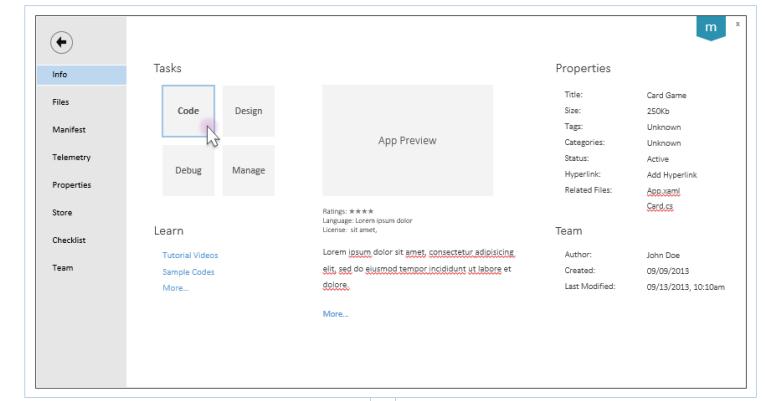


## LAYOUT: DUAL MONITORS WITH DUAL SPLIT SCREENS

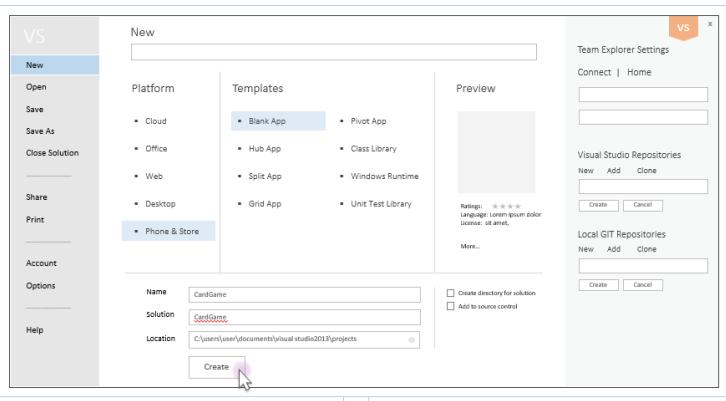
M1. Code and Preview 2. Debugging and Diagnose



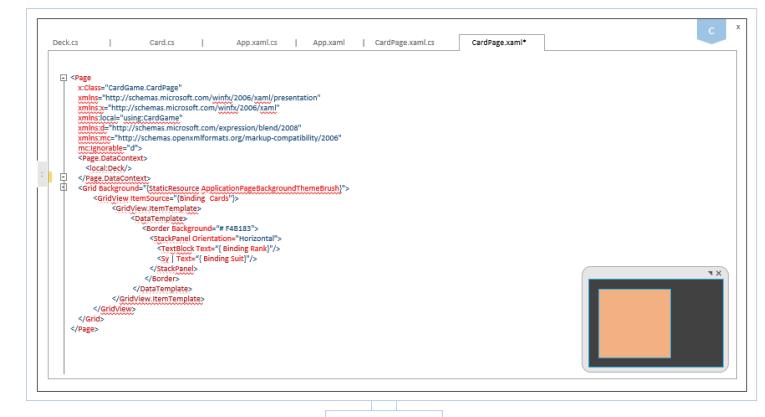
## LAYOUT: MANAGE YOUR APP



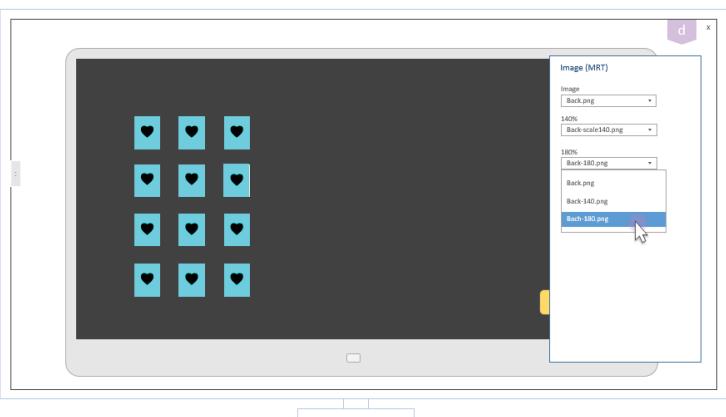
## LAYOUT: CREATE A PROJECT



## LAYOUT: CODE



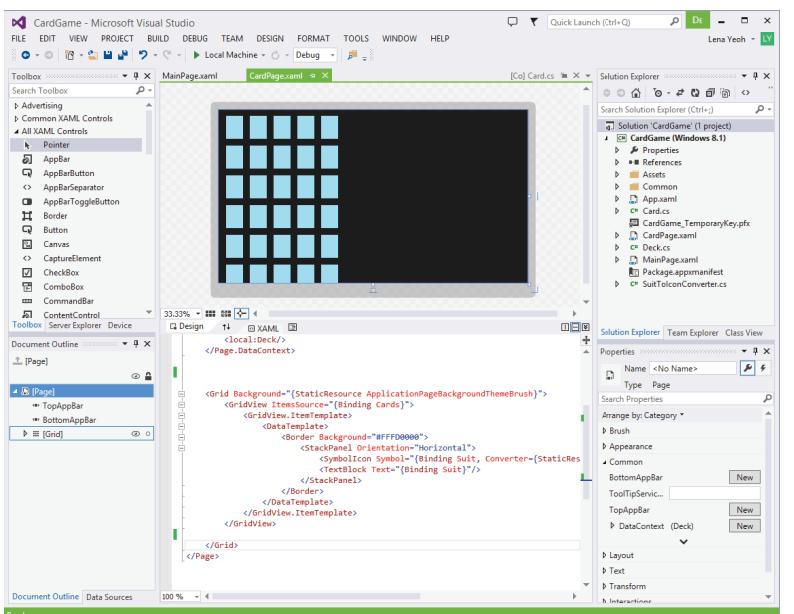
## LAYOUT: DIAGNOSE/PREVIEW



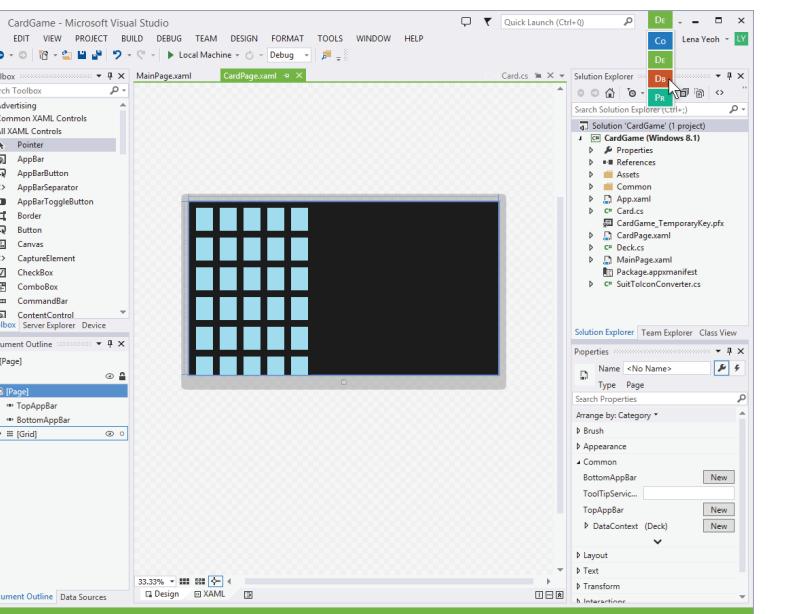
# Context Switcher Exploration

How to context switch easily when there's more than one activity involves?

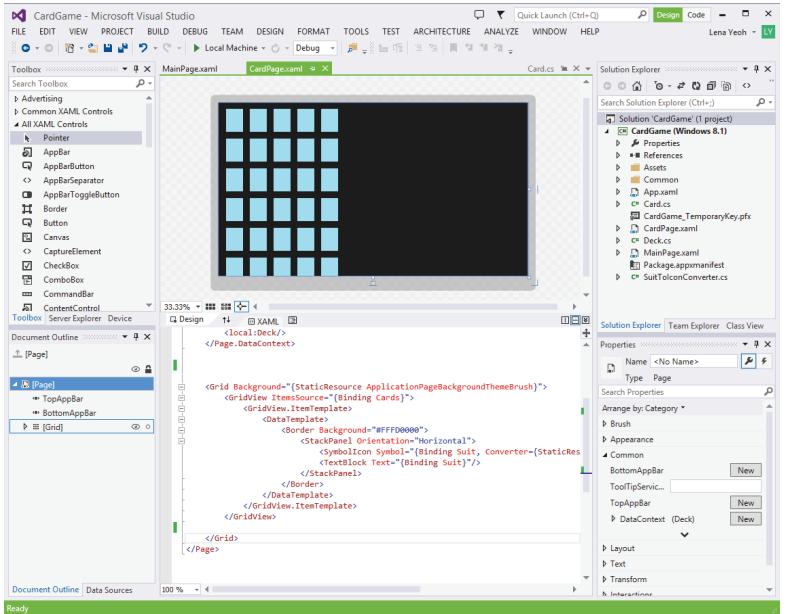
## DESIGN 01: INDICATOR



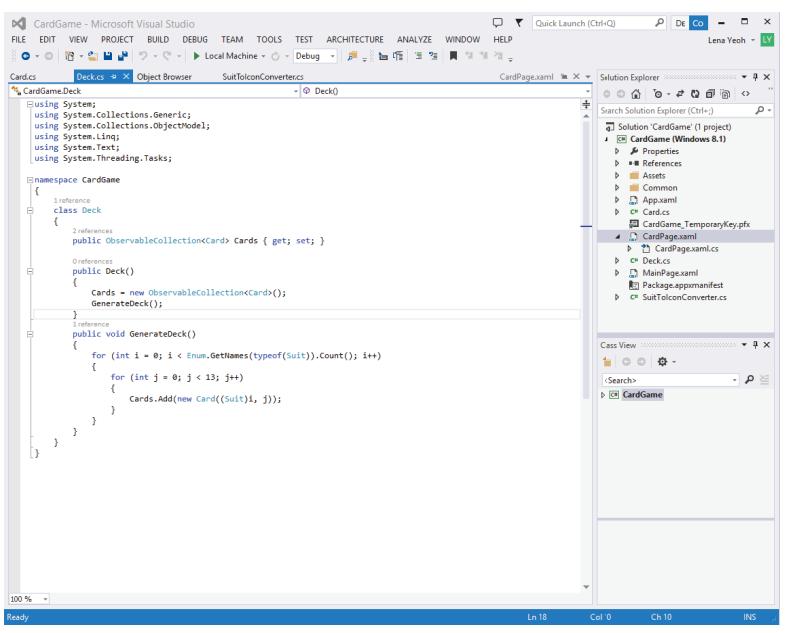
## DESIGN 02: MENU



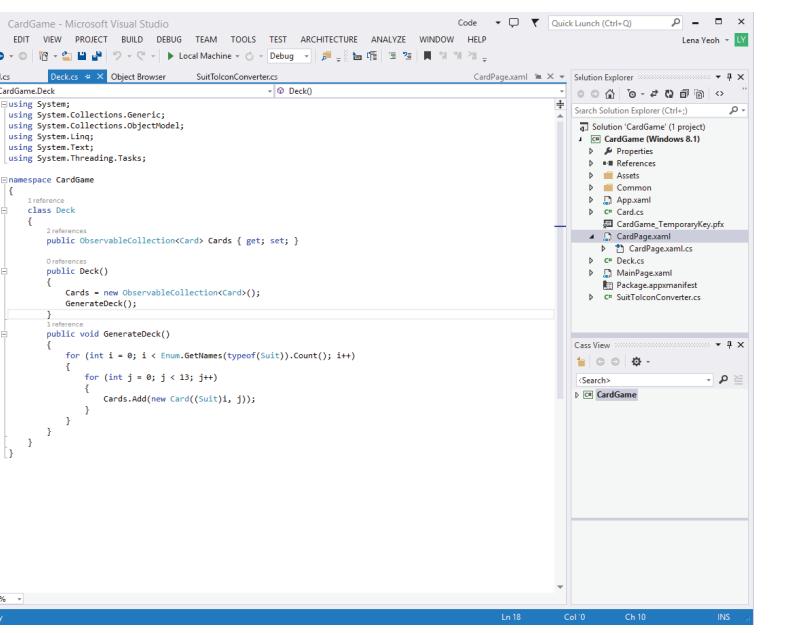
## DESIGN 03: TOGGLE BUTTON WITH TEXT



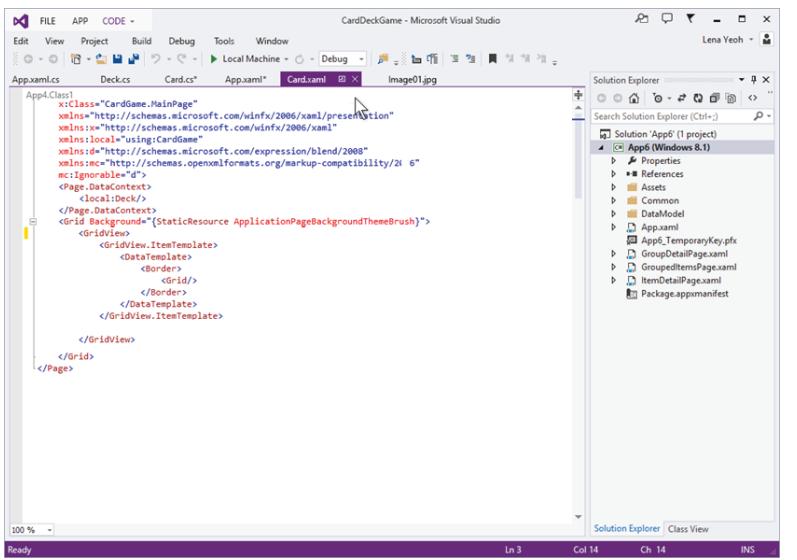
## DESIGN 04: TOGGLE BUTTON WITH SYMBOL/ICON



## DESIGN 05: DROP DOWN MENU



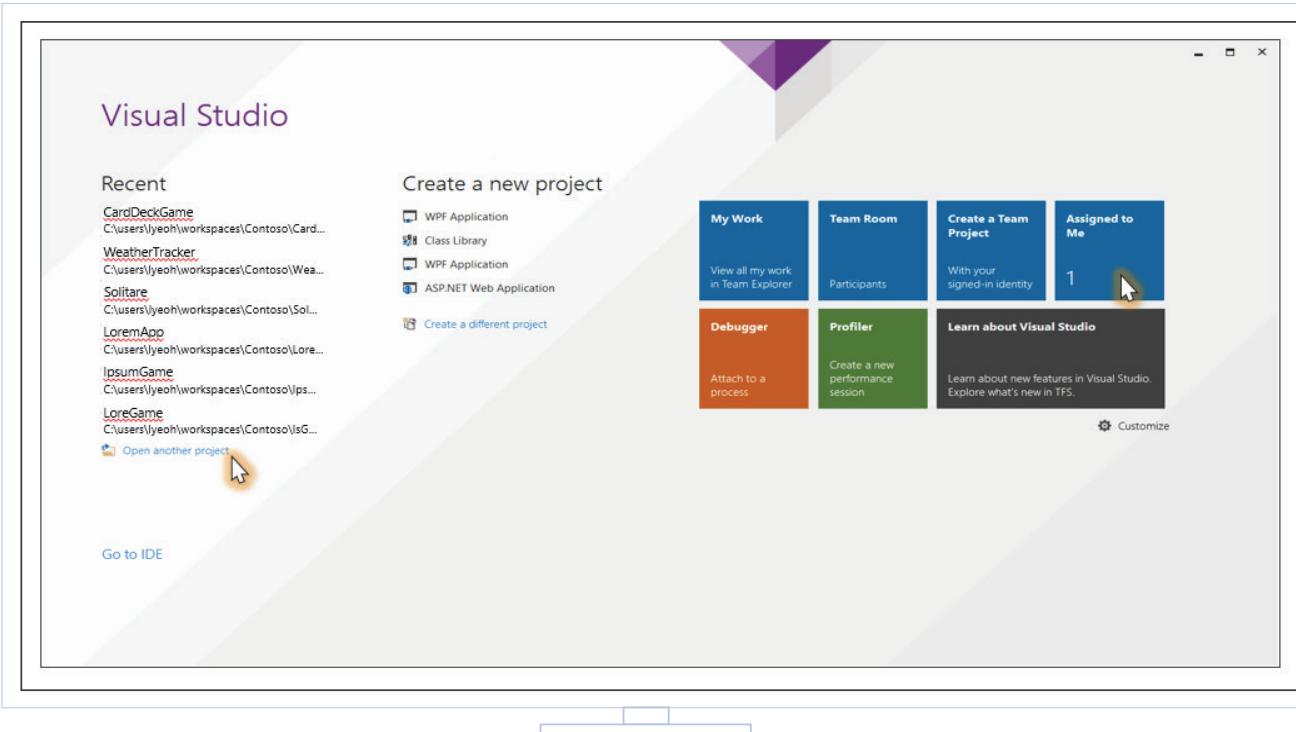
## DESIGN 06: TABLING



# Visual Mockup

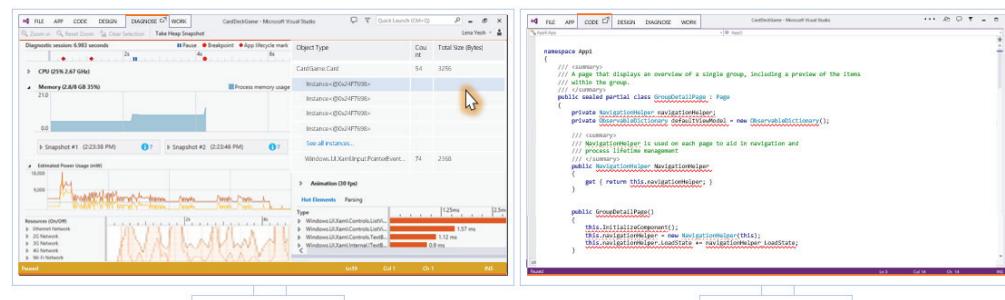
High fidelity mockups are created and iterated based on the feedback we received from partner teams.

## LAYOUT: START YOUR PROJECT



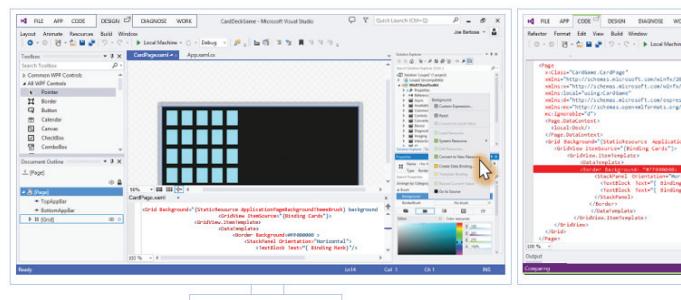
## LAYOUT: DUAL MONITORS

M1. Diagnose M2. Code

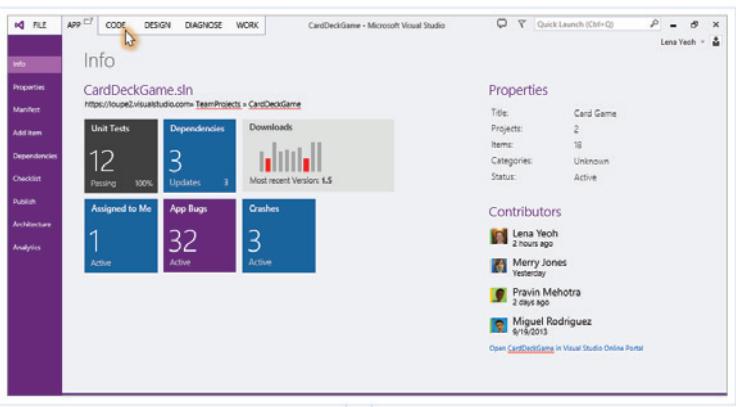


## LAYOUT: DUAL MONITORS WITH SPLIT SCREENS

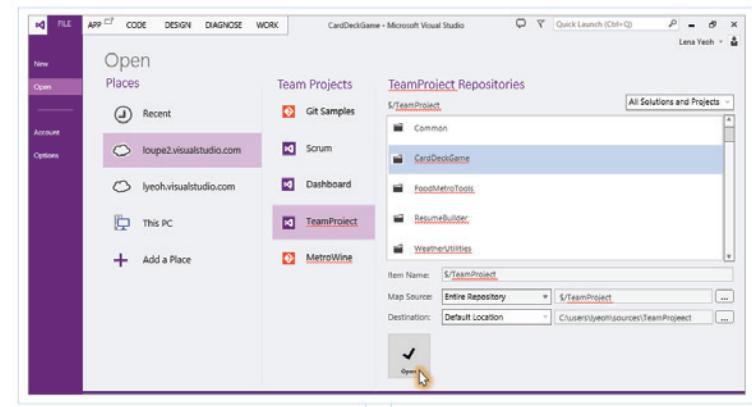
M1. Design M2. Code/Debug



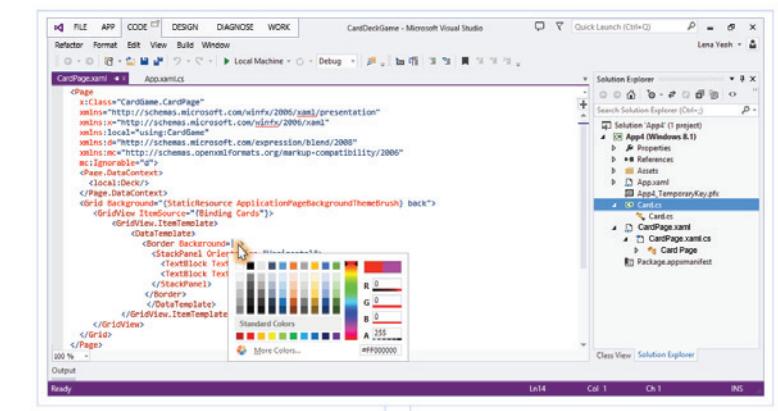
## LAYOUT: MANAGE YOUR APP



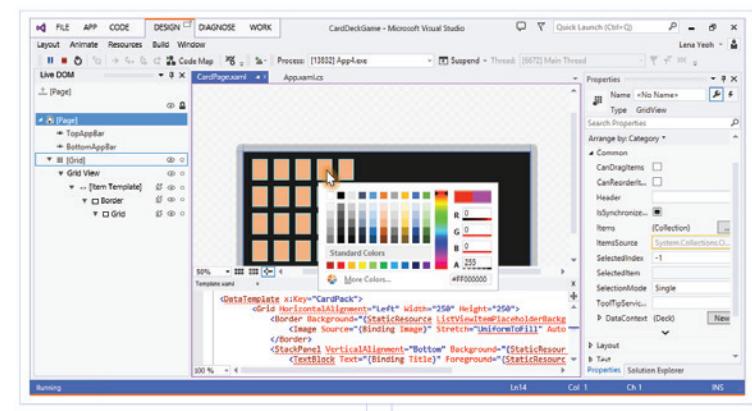
## LAYOUT: CREATE A PROJECT



## LAYOUT: CODE

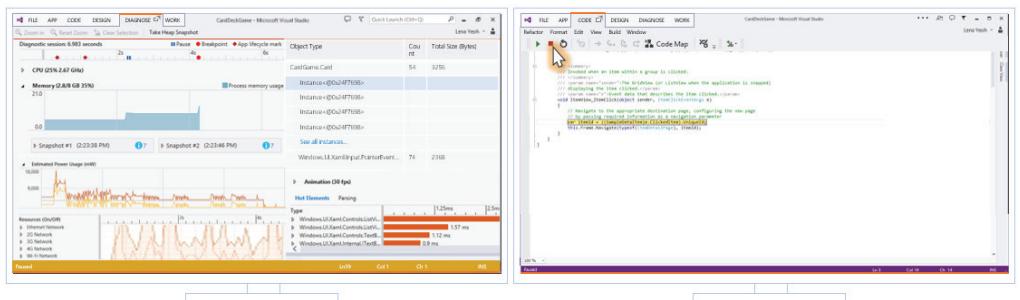


## LAYOUT: DIAGNOSE/PREVIEW



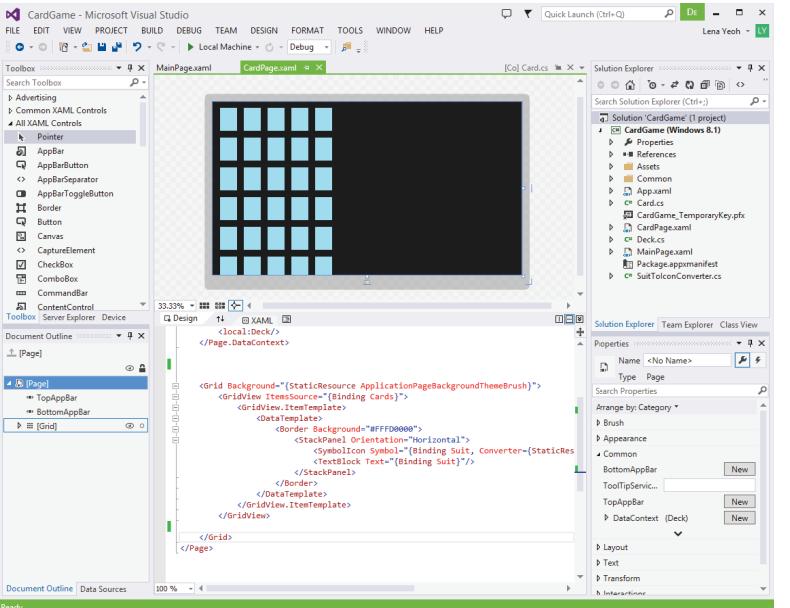
## LAYOUT: DUAL MONITORS

M1. Diagnose/Debug 2. Code

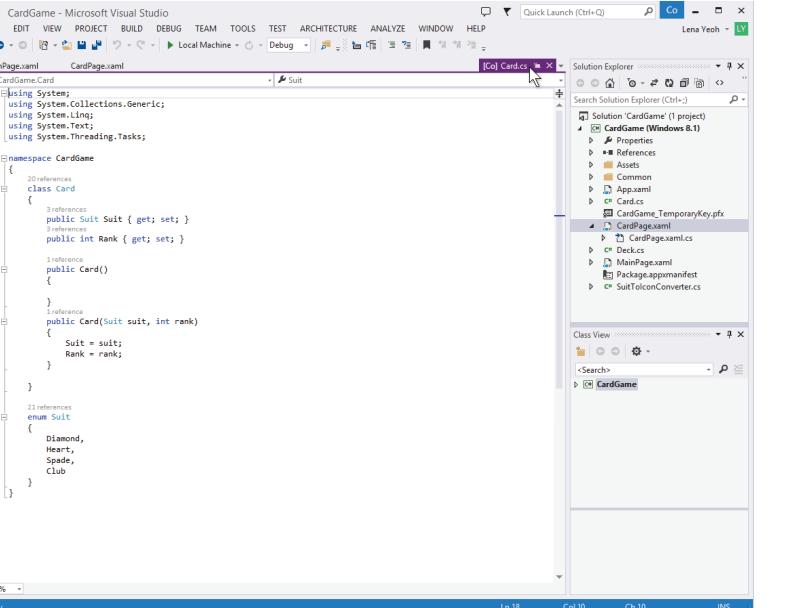


# Scenarios

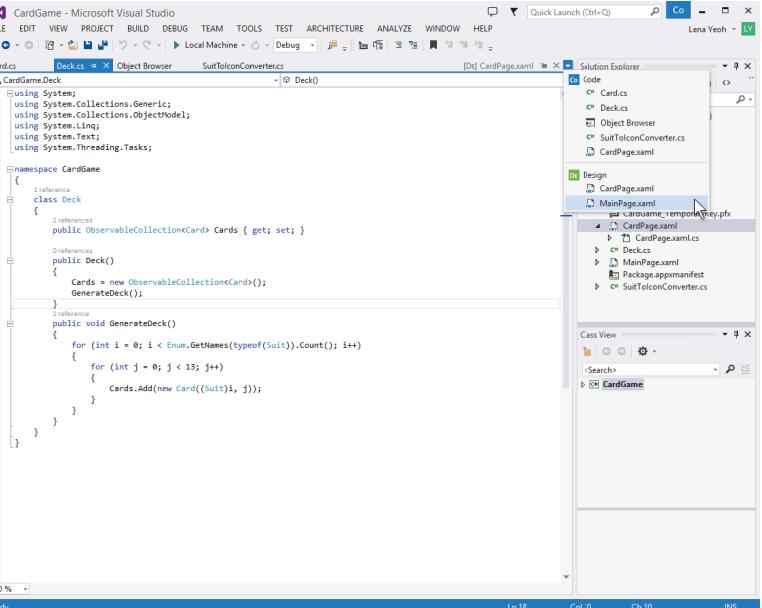
S01: Project is opened by default in Design activity space



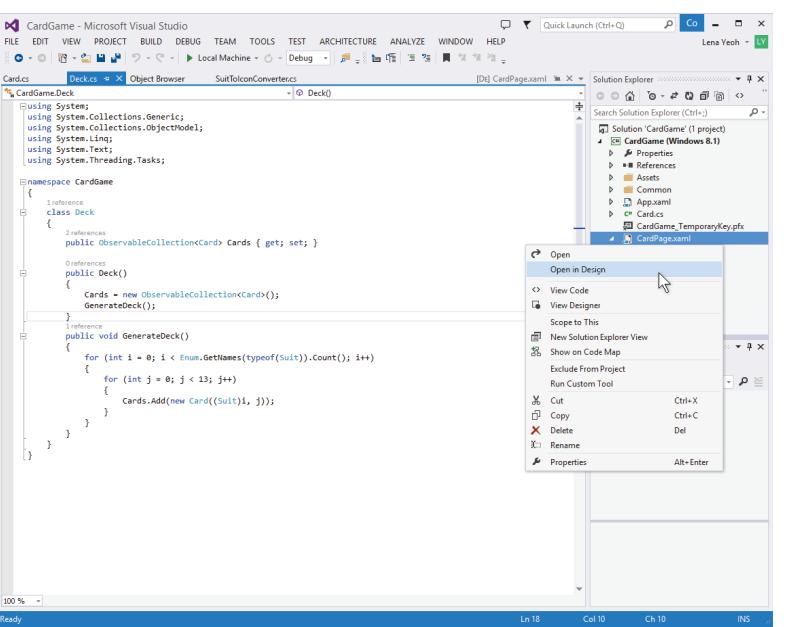
S02: User clicks on Preview tab which is a .cs file and VS is smart to detect. It is a Code document. The document automatically opens in the Code activity-space



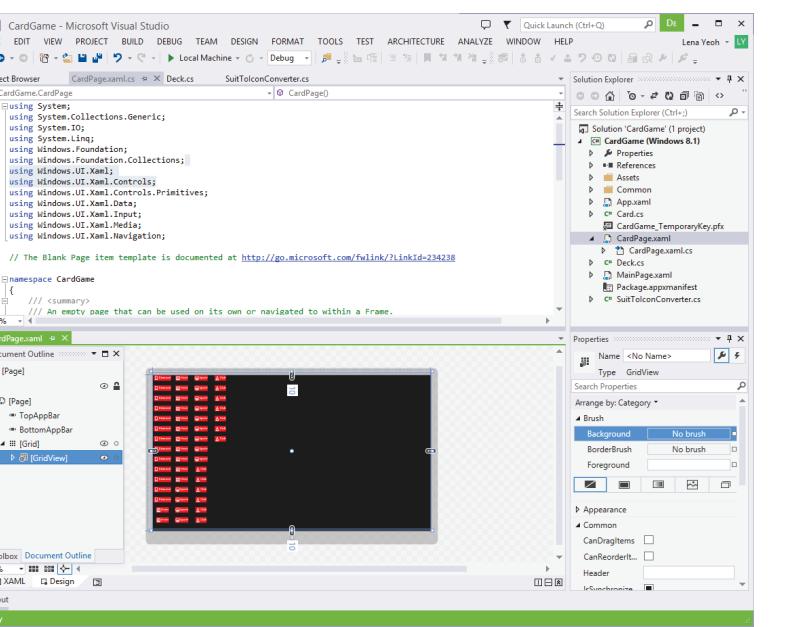
S03: User can easily accesses one of the file from the overflow tab list



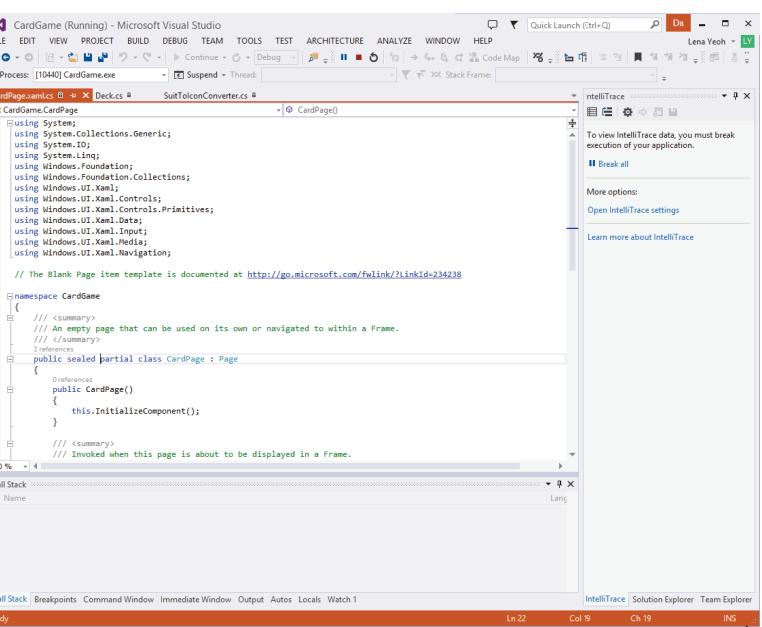
S04: User can easily open a code file via context menu in related activity space



S05: User tears windows and docks on a separate document well



S06: User debugs an existing code



# Iconography

## Audience

Visual Studio Developers

## Goals

### Design

Create a simple, clear and symbolic element as a building block

### Process

Define the engineering and design problems

Streamline the process of asset management

Identify the solution to bridge design and engineering

## Project involvement

Ideation.

Concept and Design development.

Project Management.

Team Management.

## What is 'Iconography' in the product?

Iconography is widely used as a symbolic language to represent a feature, content, brand, status, language etc. in Visual Studio. It supports a feature/content in a limited space environment.

## Motivations

- Be principle in designing iconography
- Streamline the process of asset management
- Reduce partnership dependency design and engineering team

## Challenges

- What are the pain points in the process of icon development through check into the product(s) as a feature?
- What are the most common tasks in the 'end-to-end' process?
- How do we support icon request without any dependency?

# Design Concept

## Simpler is better

Don't overburden the icon with every detail of its technical usage. Reduce the icon to its base meaning. Establish the core metaphor which illustrates its distinctiveness.

Simplification is key--Is the icon:

- Executing a command?
- Calling attention to the UI?
- Providing information or disambiguating?

## Clarity before completeness

Reduce the icon to its base meaning. Establish the core metaphor which illustrates its distinctiveness.

## Make it unique-Symbolic

Avoid using icons that represent UI elements except when appropriate. Favor a more abstract or symbolic approach when the UI element is not common, obvious, or unique.



# Icon Types

## Concept

Concept Icons, also known as Common Elements, are the building blocks of more complex icons. When a new concept icon is created, it is usually done 3 sizes. Large as a standalone or base icon, a medium size for combining 2 base icons, and a small size to use as a modifier.

### COMMON ELEMENTS

The base is created as a building block.



Examples:



Base common element - Link



Base common element - Database

## Modifiers

### ACTION MODIFIERS

Add, Create New, Delete, Open, Close, Upload, Download, Edit, Go to, Start

### STATUS MODIFIERS

Have a max of 2 of the following elements:  
1 base element, 1 modifier. IntelliSense icons are different in that the modifiers are on the right side, don't usually overlap, and use a specific color palette

Examples:



Color is used to represent action modifiers at the upper left corner



Color is used to represent status modifiers at the lower right corner

## State

State Based Value Taxonomy  
Enabled, Disabled, Disabled with error

Have a max of 2 of the following elements:  
1 base element, 1 modifier

Examples:

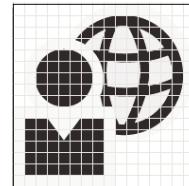


Status based value taxonomy

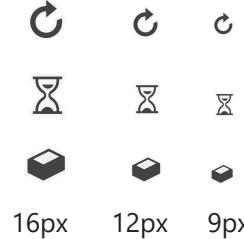
# Layout & Style

Concept Icons are created in 3 standard sizes, 9px, 12px and 16px, so that can be combined into new icons. The smallest of the concept icons, 9px are used as modifiers for base icons, 16px.

## CANVAS & SIZES

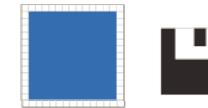


Icon is created  
in a standard  
16px canvas

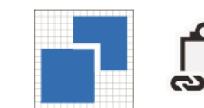


16px    12px    9px

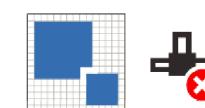
## ICON CREATION & LAYOUT



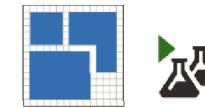
Base icon



Base icon  
with modifier



Base icon  
with status modifier  
on the lower right



Base icon  
with action modifier  
on the upper left

## SPACING

16x16 icons should have at least a 1-pixel spacing between elements. To ensure 1 pixel spacing, simply include the 1-pixel outline on each element when constructing icons.

Spacing for:

16x icons - 1 px

20x icons - 1 px

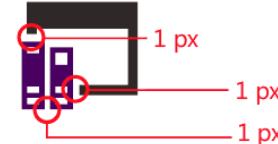
24x icons - 1 px

32x icons - 2 px

48x icons - 3 px

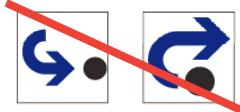
64x icons - 4 px

256x icons-14 px

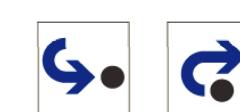


## VISUAL WEIGHT

Use consistent line weights and visual weights. Evaluate how an icon looks by comparing to icons of the same pixel size. Never fill the whole pixel frame.



Incorrect



Correct

## VISUAL LANGUAGE

Use simple, comparable shapes and complementary angles to build your elements without sacrificing element integrity. Employ 45° or 90° angles where possible.

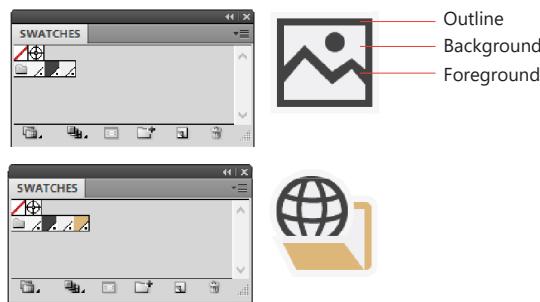


# Layout & Style

We create a language with visual studio icons by making most of them gray by shifting the focus to the on task item. Color is added meaningfully to factor a specific modifier such as action, status, language, brand, and container.

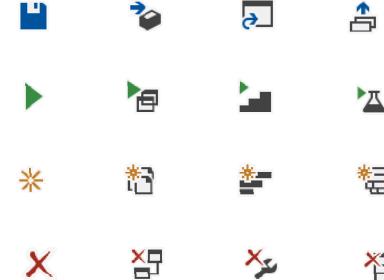
## BASIC PALETTE

Example:



## ACTION PALETTE

Example:

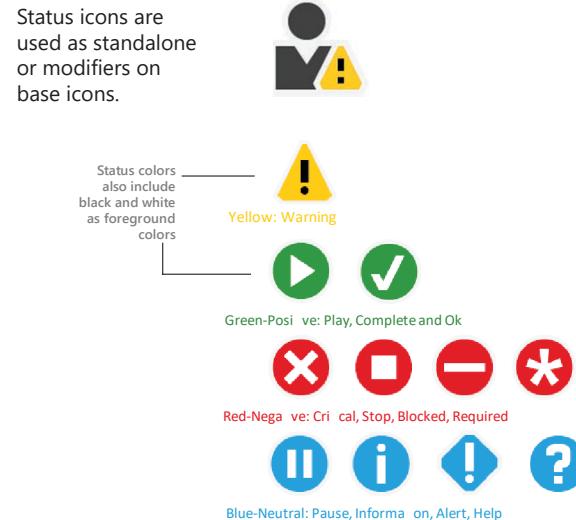


From top to bottom: Save, Run, New/Create, and Delete

Blue-neutral: Save, Next, Open, Upload/Download  
Green-positive: Add, Run, Play  
Gold: Create, New,  
Red-Negative: Delete, Remove, Stop, Block

## STATUS PALETTE

Example:



## Color value

| Basic/Standard | Hex#    | RGB           |
|----------------|---------|---------------|
| Outline        | #F6F6F6 | 246, 246, 246 |
| Background     | #424242 | 66,66,66      |
| Foreground     | #F0EFF1 | 240, 239, 241 |
| Gold Folder    | #DCB67A | 220, 182, 122 |
| Disabled       | #848484 | 132,132,132   |

## Color Value

| Action         | Hex #   | RGB          |
|----------------|---------|--------------|
| Blue/Neutral   | #00539C | 0, 83, 156   |
| Green/Positive | #388A34 | 56, 138, 52  |
| Gold/Create    | #C27D1A | 194, 125, 26 |
| Red/Negative   | #A1260D | 161, 38, 13  |

## Color Value

| Status | Hex#    | RGB          |
|--------|---------|--------------|
| Yellow | #FFCC00 | 255,204,0    |
| Green  | #339933 | 51,153,51    |
| Red    | #E51400 | 229,20,0     |
| Blue   | #BA1E2  | 27, 161, 226 |
| Black  | #000000 | 0, 0, 0      |
| White  | #FFFFFF | 255,255,255  |

## Color Value

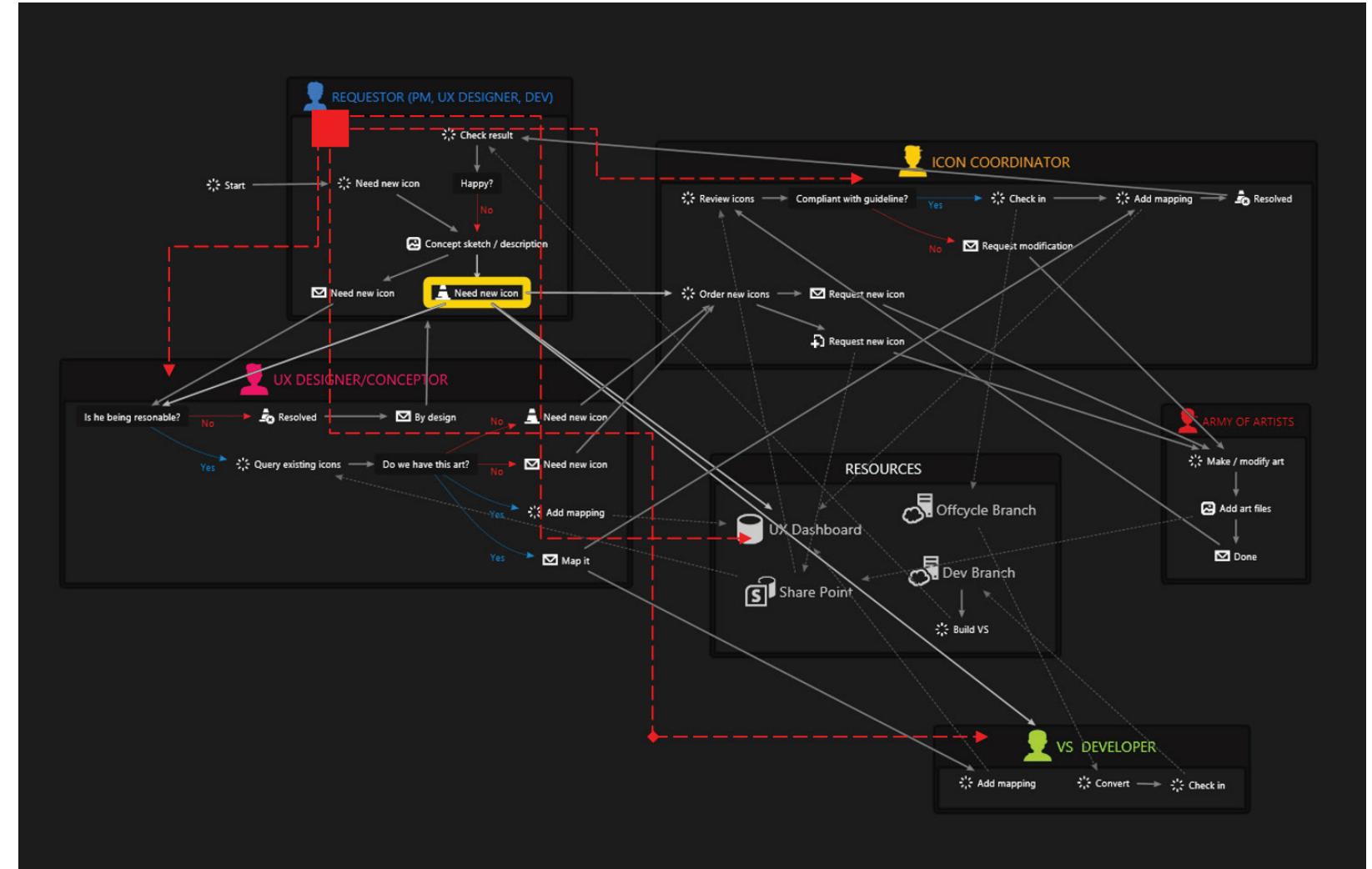
| Status     | Hex#    | RGB          |
|------------|---------|--------------|
| ASP HTML   | #0095D7 | 0, 149, 215  |
| WPF Blue   |         |              |
| C++ Purple | #9B4F96 | 155, 79, 150 |
| C# Green   | #388A34 | 56, 138, 52  |
| CSS Red    | #BD1E2D | 189, 30, 45  |
| F# Purple  | #672878 | 103, 40, 120 |
| JS Orange  | #F16421 | 241, 100, 33 |
| VB Blue    | #00539C | 0, 83, 156   |
| TS Orange  | #E04C06 | 224, 76, 6   |
| PY Green   | #879636 | 135, 150, 54 |

# Defining the existing process and complexities

## ISSUES

- Invalid concept
- Missing deadline
- Incorrect mapping
- Overwhelming un-attended request
- Poor communication
- Big engineering gap

## COMPLICATED PROCESS



## OVERWHELMING TIMELINE



Streamline the process and define the solutions

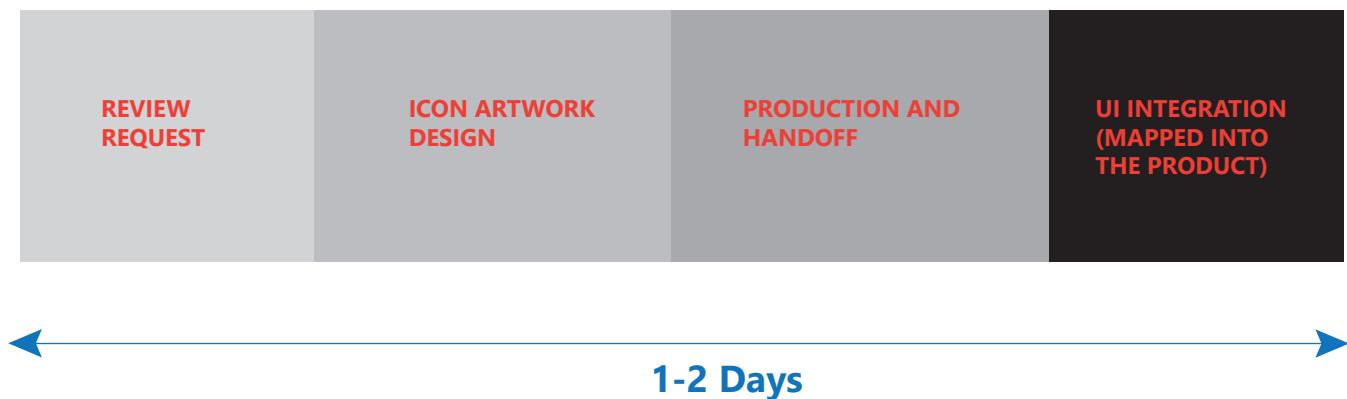
## SOLUTION

- Icon Request Template - TFS database
  - Visual Icon Database
  - Metadata Support on searchable database
  - Visual Language Dictionary
  - Deliverable time - 1-2 days
  - Automation engineering mapping
  - Automated inversion process for different theme
  - Support Accessibility

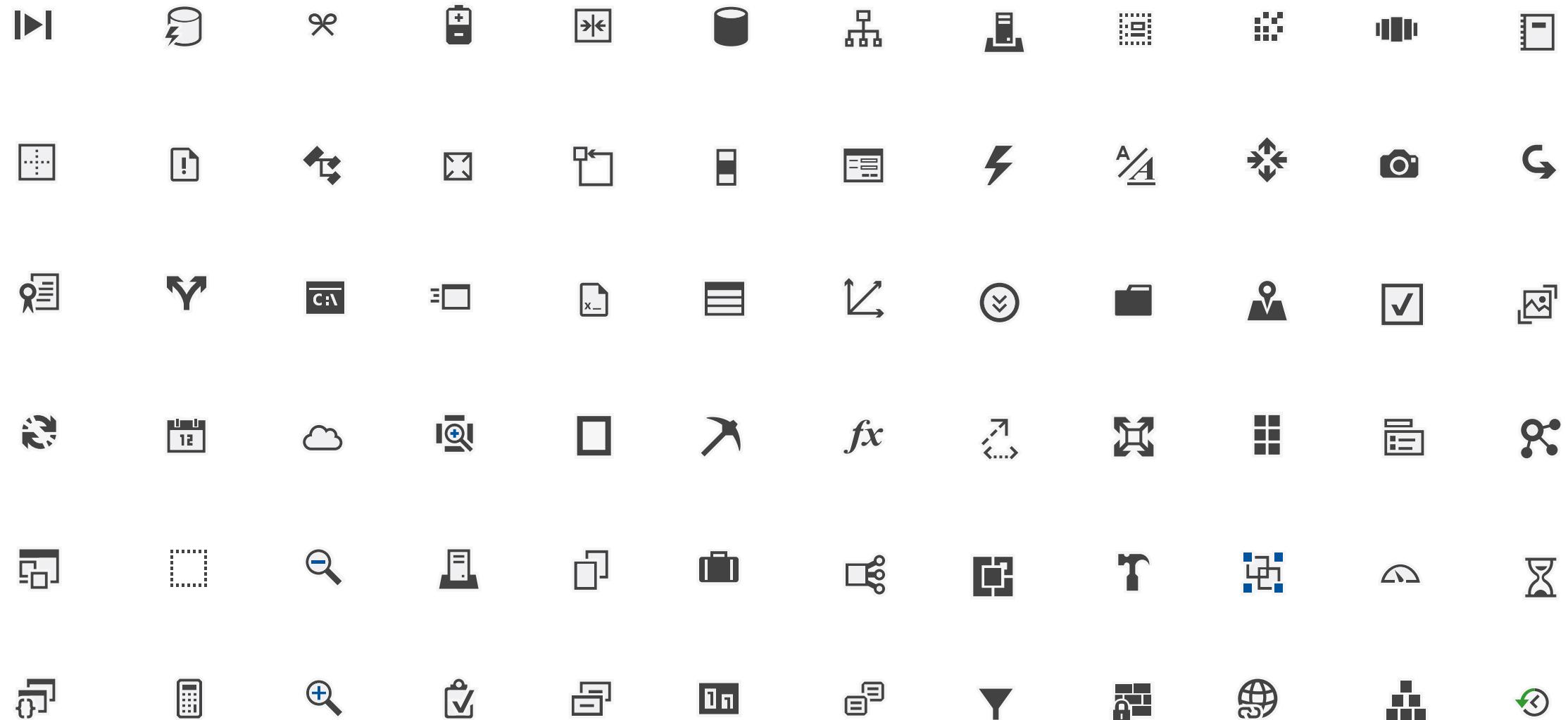
## REFINED PROCESS



## MANAGEABLE TIMELINE



## Icon Library



# Icon Repositories

## VISUAL LANGUAGE DICTIONARY

| Visual Language Dictionary   |      |          |                      |
|--|------|----------|----------------------|
| Concepts   |      |          |                      |
| Concept  | Icon | Examples |                      |
| Accessibility  |      |          |                      |
| Action   |      |          | Action log           |
| The Action icon can also be used as an annotation to indicate that the base action will be performed using automatic settings. |      |          |                      |
| Activity   |      |          | Code activity        |
| Actor  |      |          |                      |
| Add  |      |          | Add all driver tests |
|  |      |          | Add attachment       |
|  |      |          | Add behavior         |
| Address  |      |          |                      |
| Alert  |      |          |                      |
| Alpha channel  |      |          |                      |
| Animation  |      |          | Animation error      |
|  |      |          | Next animation       |

## ICON KNOWNMONIKERS

| StandardGlyphGroup   | KnownMonikers  |
|--|--|
| A<br><ul style="list-style-type: none"><li>Abbreviation</li><li>AboutBox</li><li>AbsolutePosition</li><li>AbstractAssociation</li><li>AbstractClass</li><li>AbstractCube</li><li>Accelerator</li><li>AcceptEventAction</li><li>Accessibility</li><li>Accordion</li><li>Account</li><li>AccountAttribute</li><li>AccountGroup</li><li>Action</li><li>ActionLog</li><li>ActionTool</li><li>ActivateWorkflow</li><li>ActiveDocumentHost</li><li>ActiveEnvironment</li><li>ActiveFluidLayout</li><li>ActiveServerApplication</li><li>ActiveXControl</li><li>Activity</li><li>ActivityDiagram</li><li>ActivityFinalNode</li></ul> | <ul style="list-style-type: none"><li>AddMember</li><li>AddMemberFormula</li><li>AddMethod</li><li>AddModule</li><li>AddNamespace</li><li>AddNestedTable</li><li>AddOnlineVersion</li><li>AddOrRemoveColumns</li><li>AddPageGuides</li><li>AddParameter</li><li>AddParentNode</li><li>AddPhone</li><li>AddProperty</li><li>AddQuery</li><li>AddReference</li><li>AddRelationship</li><li>AddRemoteServer</li><li>AddressEditor</li><li>AddRightFrame</li><li>AddRow</li><li>AddScreen</li><li>AddSnippet</li><li>AddState</li><li>AddStateGroup</li><li>AddStyleRule</li></ul> |

# VS ICONS DATABASE

The screenshot shows a web browser displaying the 'Visual Studio Icons' website at <https://vsicons.azure.com>. The page header includes a back button, forward button, address bar, and various toolbars. The main content area has a search bar with placeholder 'Enter search term...' and a 'Go' button. A message indicates '81 common concept icon(s) in the inventory displayed below.' Below this, there are six rows of 12 icons each, arranged in a grid. Each icon is a small square with a unique symbol. The icons represent various concepts like file operations, navigation, and system status. At the bottom of the page, there are links for 'UX Guidelines', 'Visual Language Dictionary', 'Add icons to your UI', 'Icon Request', and 'Known Monikers'.

# Blend for HTML

Web Design Tool - Version 1

## Audience

Modern web designers, Web App designers, Front-end web app developers.

## Goal

Build a visual, design-centric application offers visual construction of web application that is compatible with a developer environment in Visual Studio for creating an immersive HTML 5 application.

Developed a better productivity tool as targetted users can make interactive designs without editing markup.

Maintained an interactive productivity visual tool with accurate markup.

## Project involvement

- Ideation.
- User research.
- Concept development.
- Concept Value Testing.
- Usability Studies.
- UX/UI design.
- Front-end development.
- Implementation.
- Product Testing.
- Bug Fixing.

## Overview

Built a V1 modern visual constructive HTML tooling for web app designers and developers to create immersive web app for multidevices targetting Windows platform. This interactive application focused on seamless user experiences, helping user to create, design, and style layout visually on an interactive design surface with clean and accurate HTML 5 markup. It came with clean and trustworthy syntax and allows fluid visual feedback during authoring.

## Features

- Powerful CSS Properties Editor
- High Fidelity and Interactive Design Surface
- Coding with Related Files
- Styling with complex dynamic states
- Easy access Style Rule properties
- View targetted display size with Preview panel
- Authoring CSS Animations
- Embedded custom Fonts
- Data-Bind Properties

## Research measurement on workflow review

### Useful

Perceived level of value by our target users

### Usable

Success, ease of use, time to completion, and confidence

### Desirable

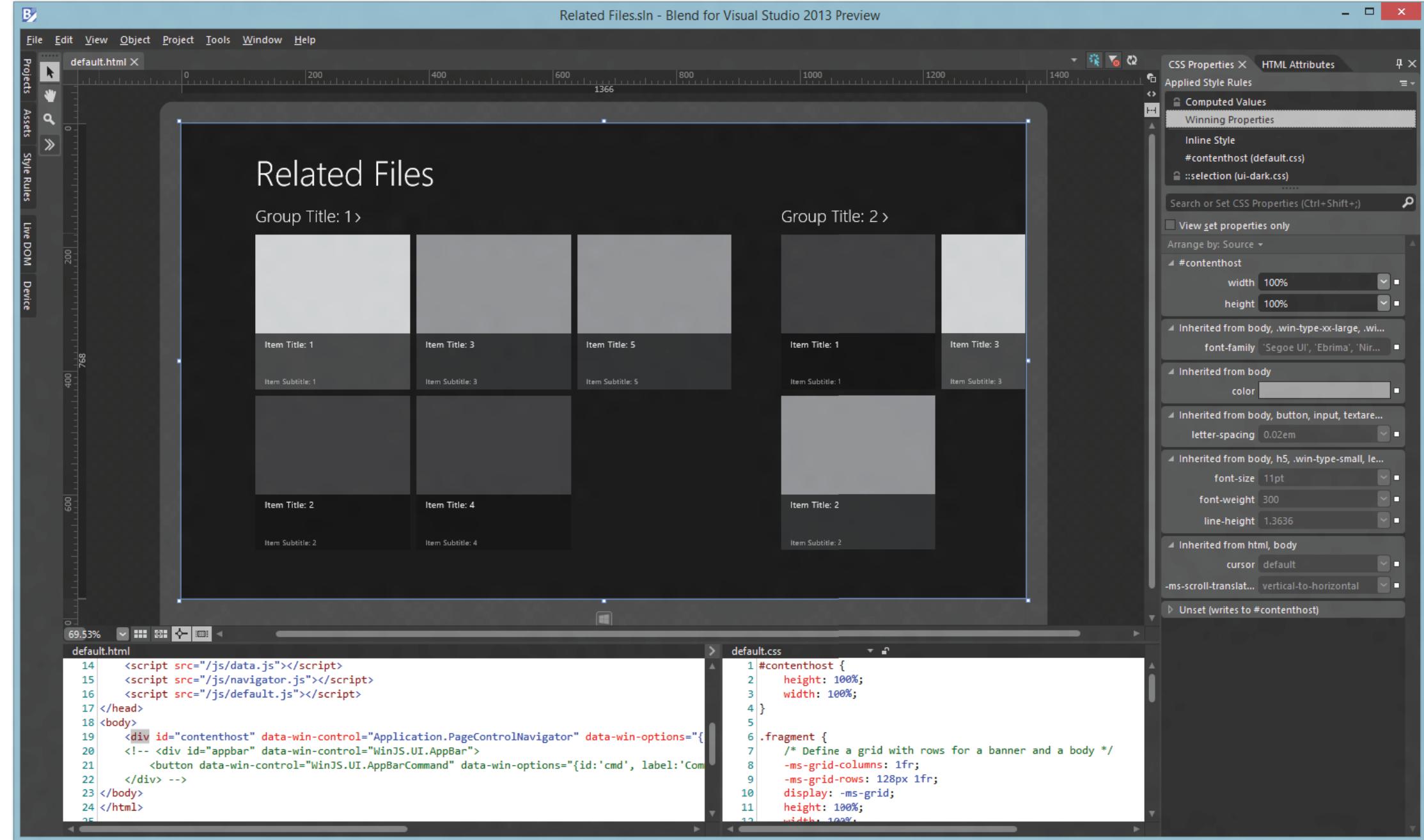
Emotional response and reflection of our brand values

### Principled

Demonstrates Microsoft's experience principles of craftsmanship, simplicity, and consistency

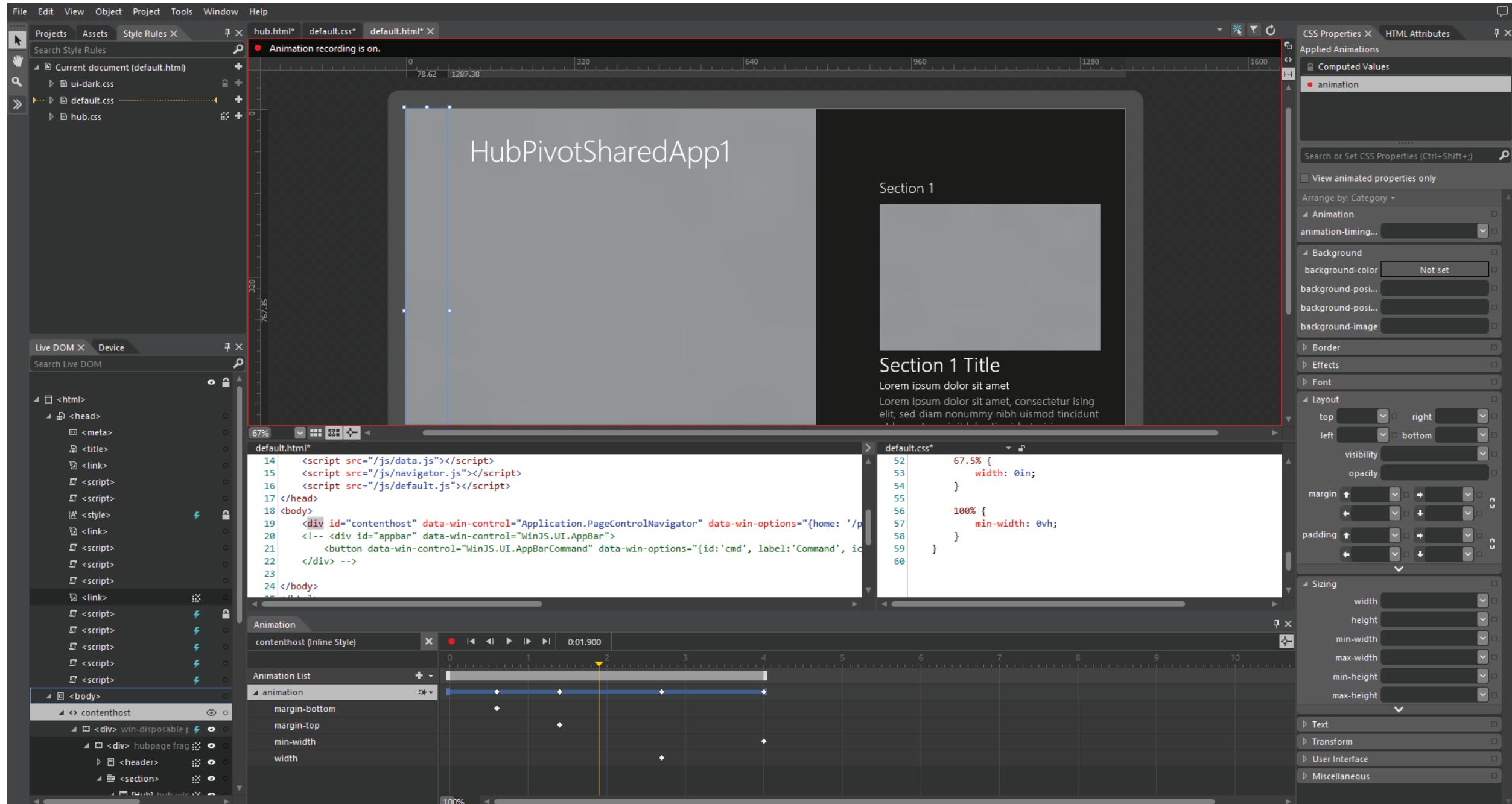
# Design Principles

Predictable  
Choice  
Productivity  
Visual Construction



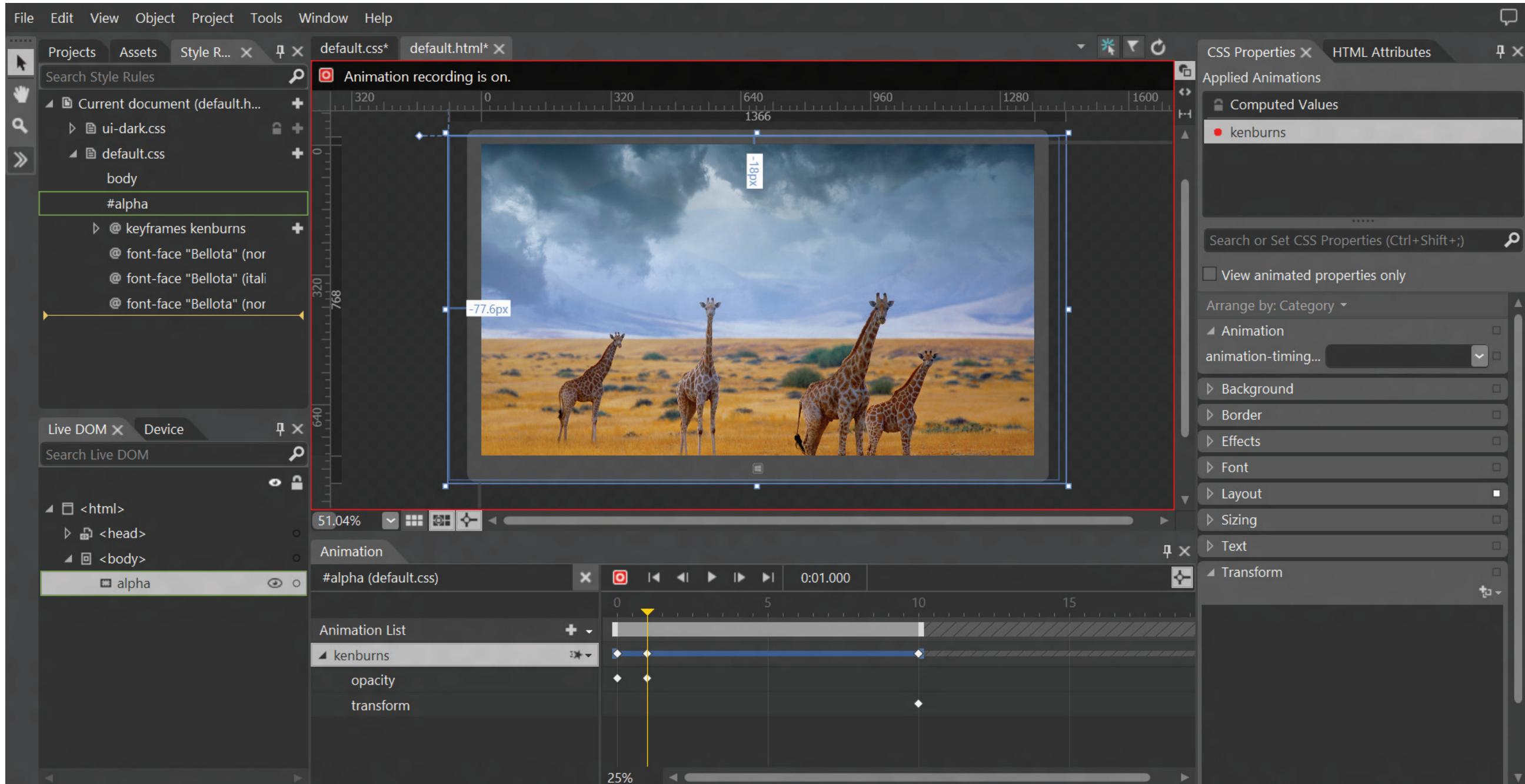
# Workspace Design

## FULL VIEW



# Workspace Design

## ANIMATION VIEW



# Workspace Design

## CODE VIEW

The screenshot shows the Adobe Muse CC interface with the 'CODE VIEW' tab selected. The main area displays the CSS code for a document named 'default.html'. The code includes a CSS rule for an element with ID '#alpha' and a keyframe animation named 'kenburns'.

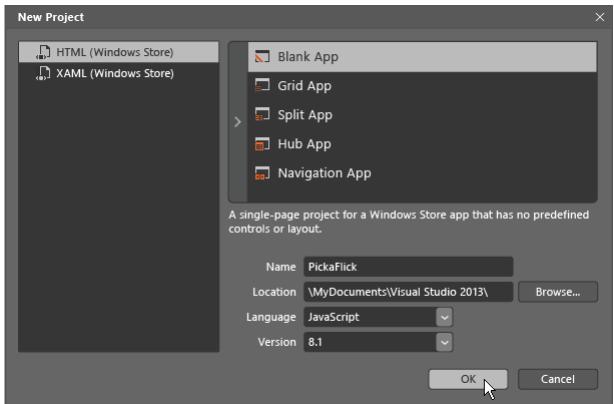
```
4 #alpha {
5   width: 110%;
6   height: 110%;
7   position: fixed;
8   background-image: url('/images/BingWallpaper-2013-08-01.jpg');
9   background-size: cover;
10  animation-name: kenburns;
11  animation-duration: 10s;
12  animation-fill-mode: forwards;
13  top: -18px;
14  left: -77.6px;
15 }
16
17 @keyframes kenburns {
18  0% {
19    opacity: 0;
20  }
21
22  10% {
23    opacity: 1;
24  }
25
26  100% {
27    transform: scale(1.15, 1.15) translate(5%, 4%);
28  }
29 }
30
31 @font-face {
32   src: url('/images/Bellota-Regular.otf') format('opentype');
33   font-family: Bellota;
34   font-style: normal;
35   font-weight: normal;
36 }
37
38 @font-face {
```

The interface includes a 'Style Rules' sidebar on the left, a 'CSS Properties' panel on the right, and a 'Live DOM' panel at the bottom left. The top menu bar has options like File, Edit, View, Object, Project, Tools, Window, and Help.

# Feature Designs

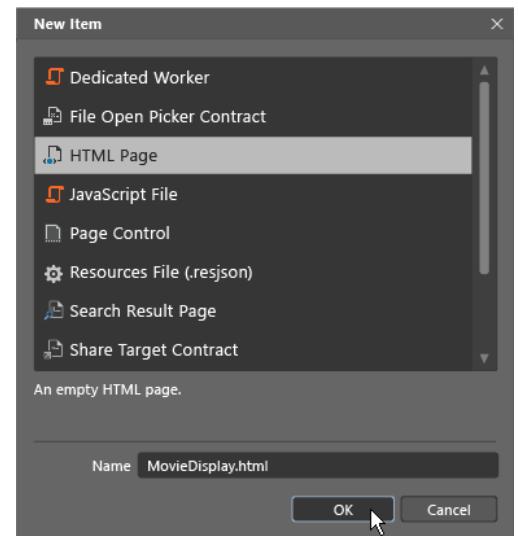
## NEW PROJECT

### NEW PROJECT WITH A SET OF TEMPLATES



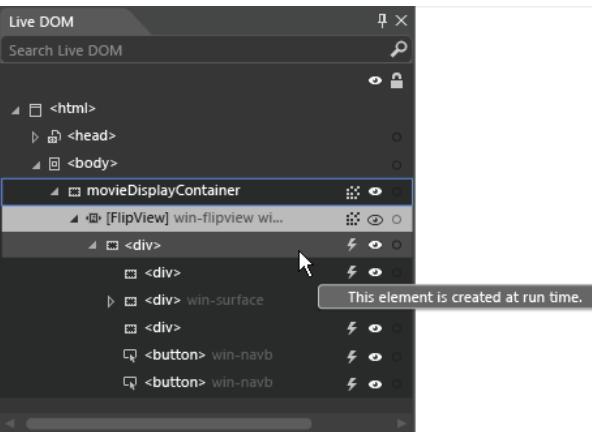
## ADD NEW ITEMS

### READY TO BE ADDED ITEMS

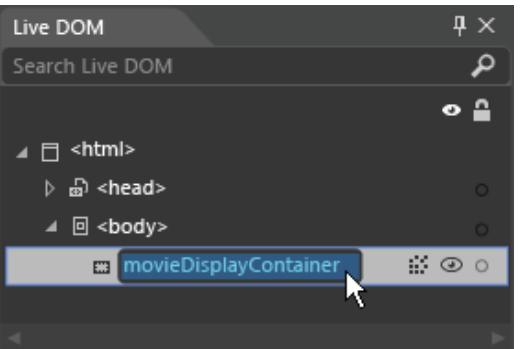


## LIVE DOM

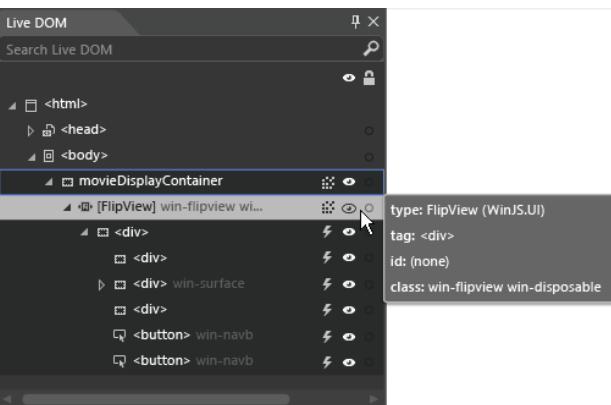
### ELEMENT CREATED AT RUNTIME



### CREATE CONTAINER

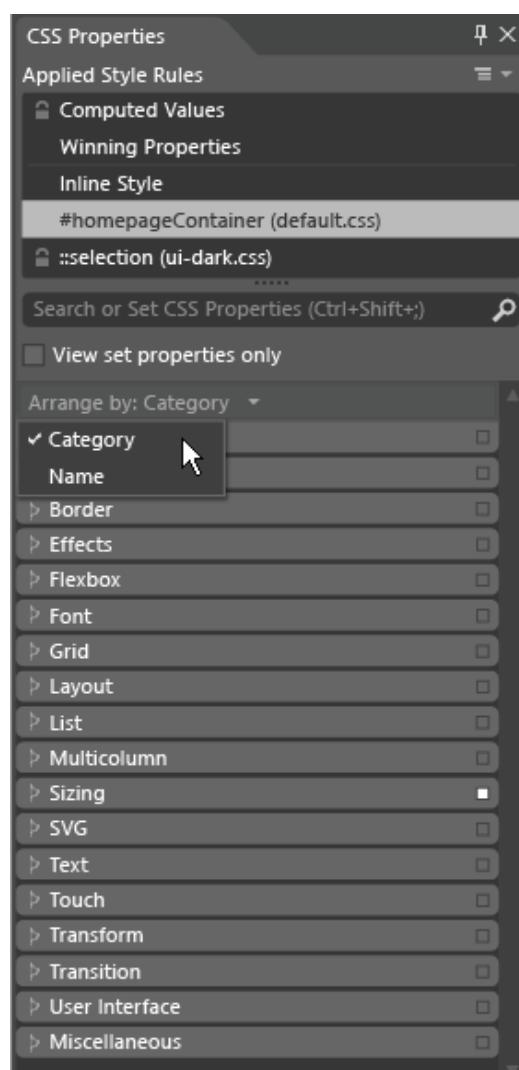


### SHOW ADDITIONAL INFORMATION

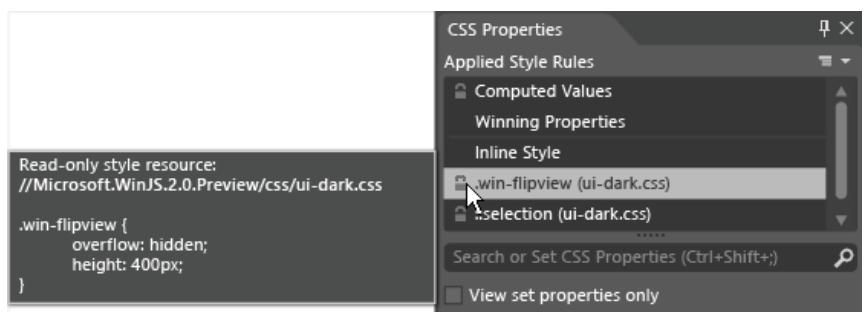


## CSS PROPERTIES

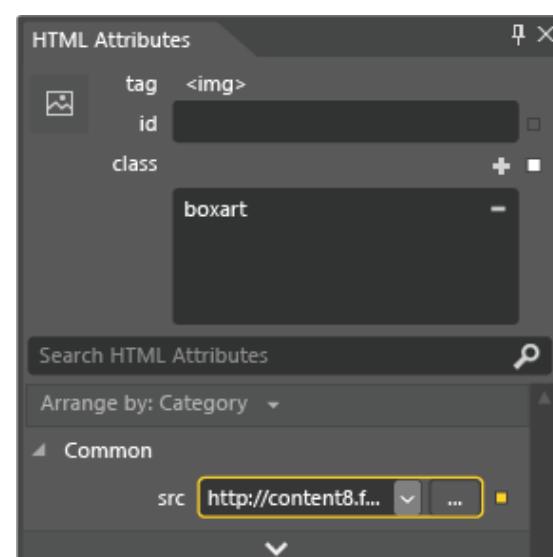
### SHOW APPLIED STYLE RULES & PROPERTIES



### SHOW APPLIED STYLE RULES WITH INFO TIP



## HTML ATTRIBUTES



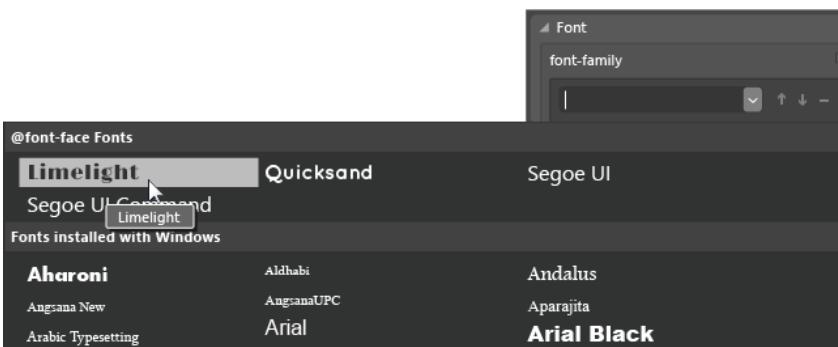
# Feature Designs

## CSS PROPERTIES

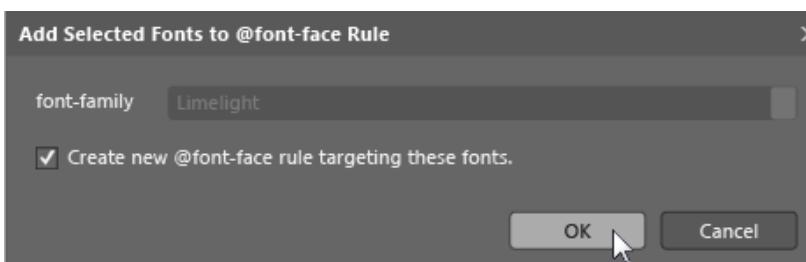
### PROPERTIES: FONT



### PROPERTIES: @FONT FACE



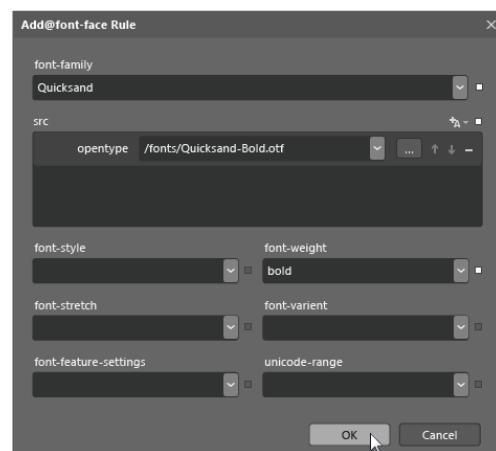
### ADD SELECTED FONTS TO @FONT FACE



### PROPERTIES: FONT COLOR EDITOR

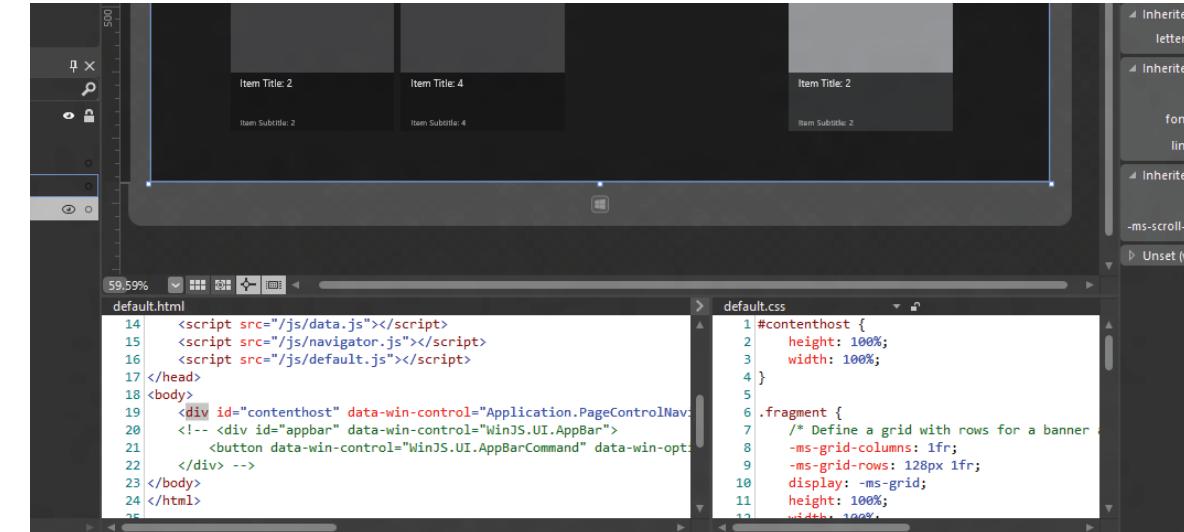


### @FONT FACE RULE

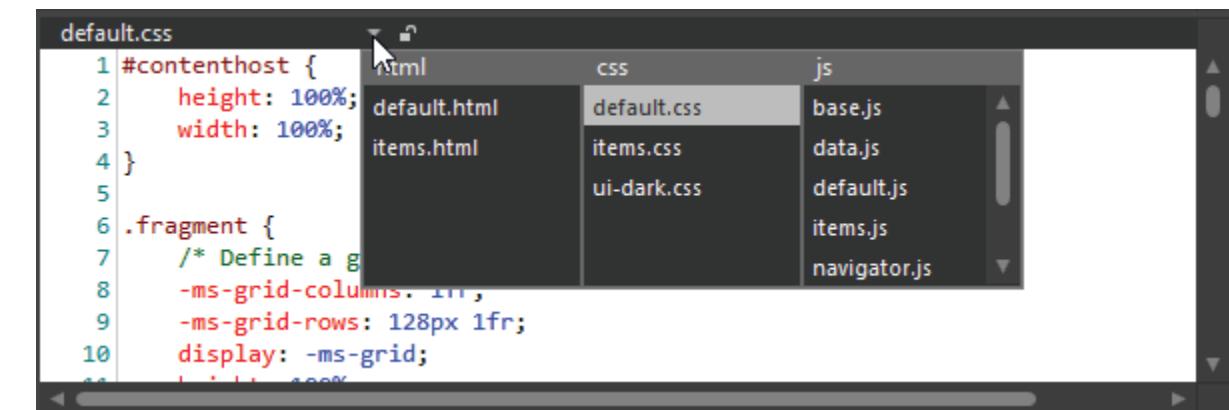


## RELATED FILES

### SPLIT VIEW TO SHOW RELATED FILES



### FILE PICKER FOR RELATED FILES



# Building App Demo

## Audience

Modern web designers and Visual web app developers.

## Goals

Design an immersive app with HTML/javascript scenario.

Identify the end-to-end experience creating an immersive web app using Blend for HTML.

Showcase the key features on Blend for HTML.

## Project involvement

Ideation.  
Concept development.  
UX/UI design.  
Front-end development

## Overview

"Movie," an exploratory flixter-like movie app for the Windows Store. The purpose of the app is to browse movies type, share movie ratings, discover new movies, and meet people with similar tastes. A small team of PM, developers and I worked collaboratively from ideation, design, and implementation. This was a 5 days exploratory project using web technology such as WINJS, jQuery, and HTML/CSS.

## Process

Lead the user workflow, design, and interaction model for developing an interactive web app. Deliverables included design concepts, wireframes, final assets, and HTML/CSS files for engineering on final design output and interaction model.

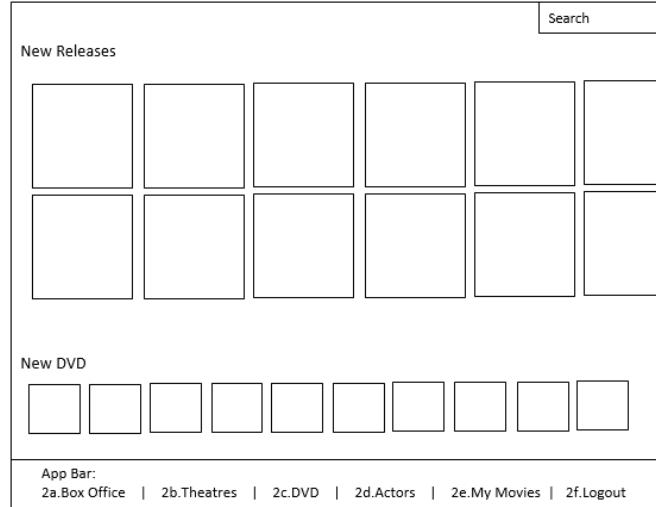
## Outcomes

Throughout this exercise, we discovered the pain point and gap in having a seamless workflow for design/styling. This allowed us to build a better experience in Blend for HTML.

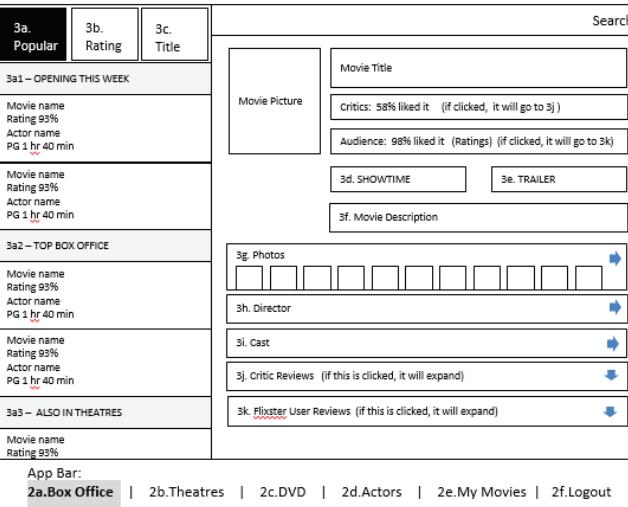
# Wireframe

Building 'flixster type' demo app for Win 8 - Landscape layout

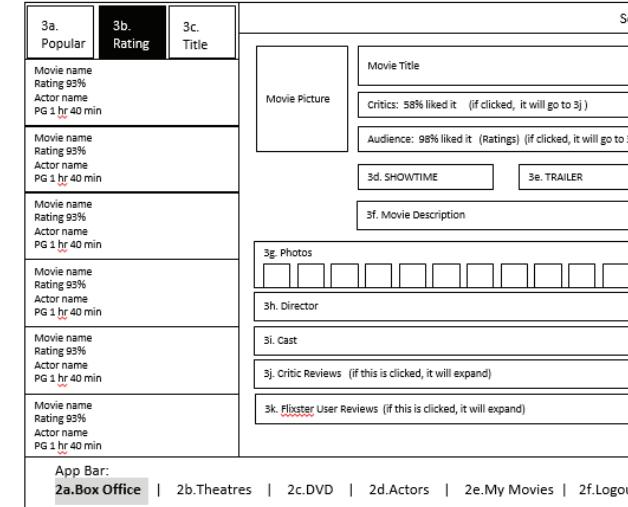
2. Landing page (landscape)



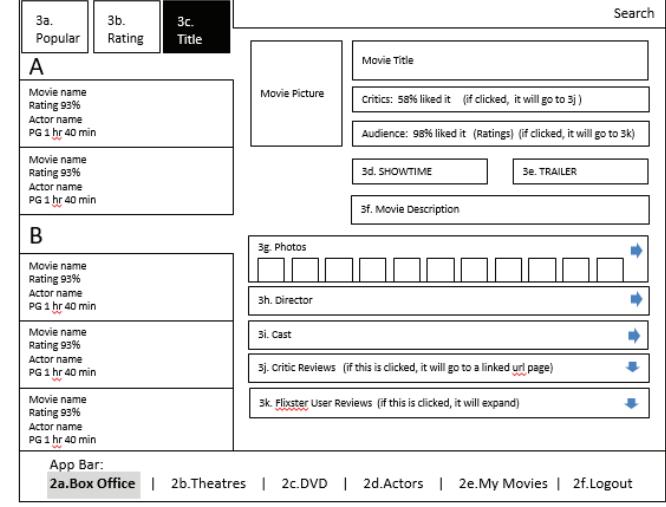
3a. Start Page - Popular (landscape – box office)



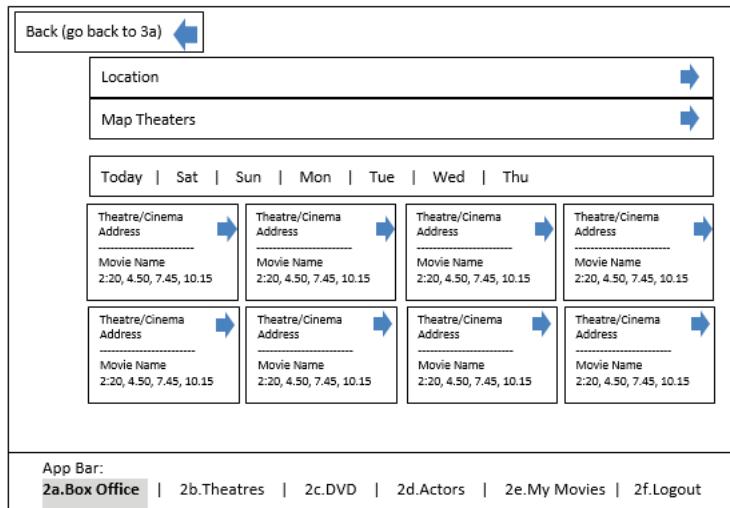
3b. Start Page - Rating (landscape – box office)



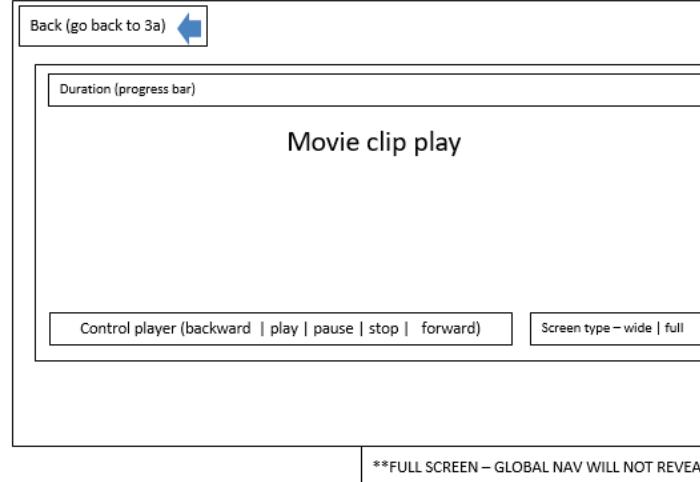
3c. Start Page - Time (landscape – box office)



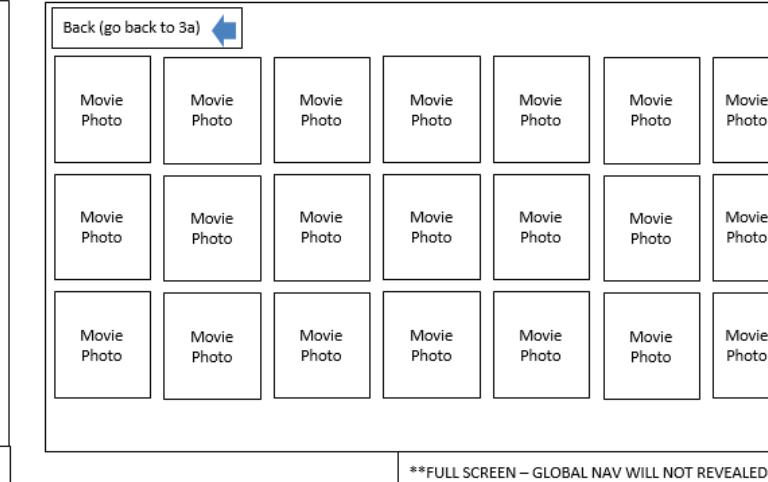
3d. Showtime (can be applied to both Landscape and Portrait)



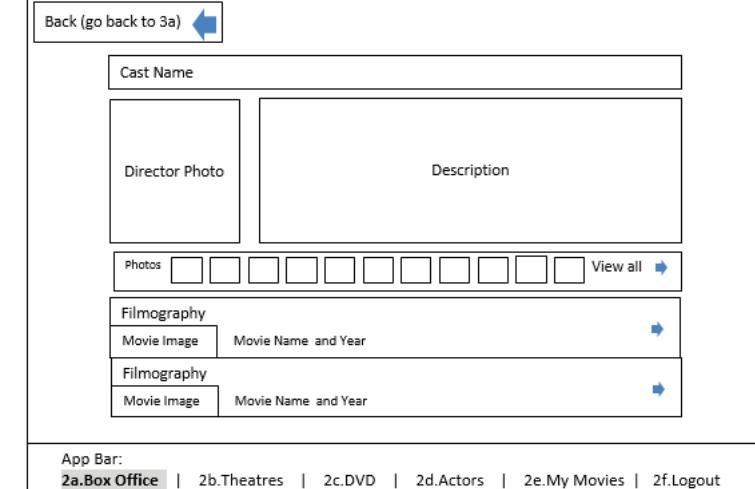
3e. Trailer (only applied on Landscape)



3g. Photos (can be applied to both Landscape and Portrait)



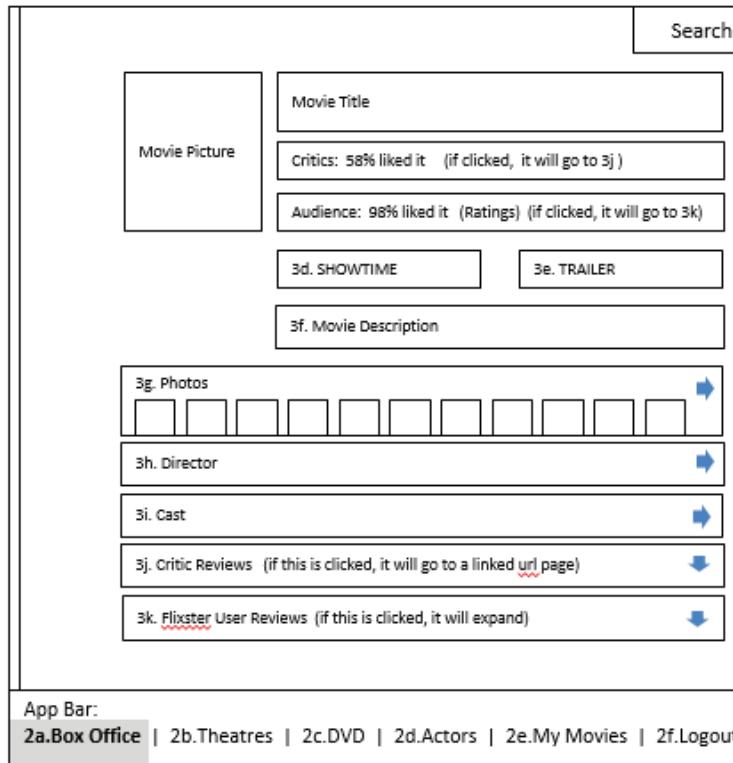
3i. Cast (can be applied to both Landscape and Portrait)



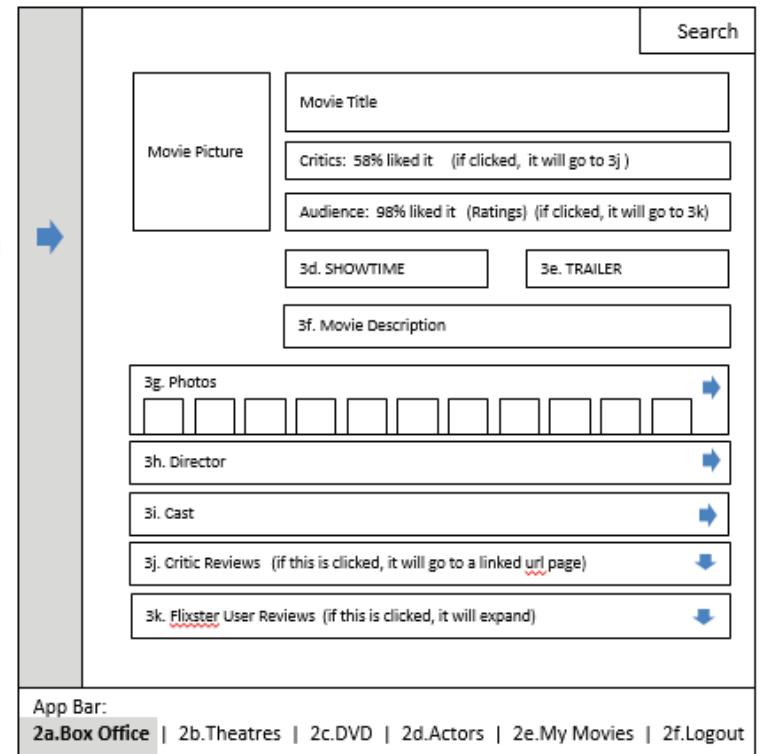
# Wireframe

Building 'flixster type' demo app for Win 8 - Portrait layout and panels

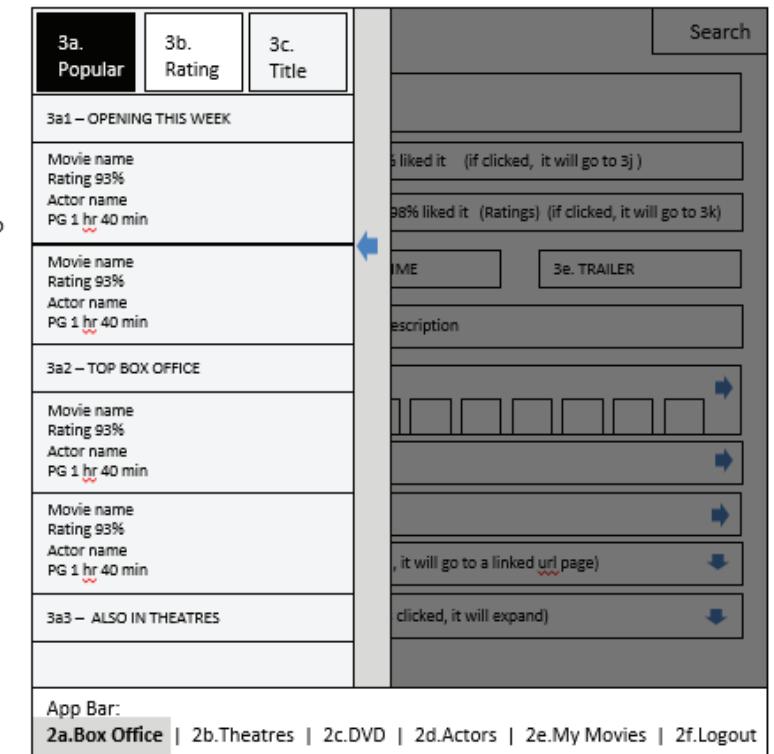
3c. Start Page (Portrait – box office)



3c. Start Page (Portrait – box office) - show swipe to right feature



3c. Start Page (Portrait – box office) - show open panel

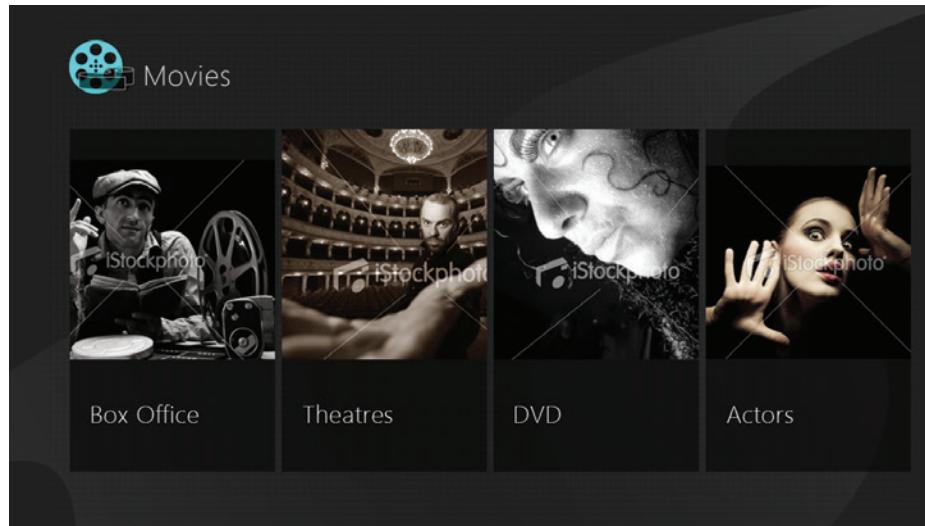


# Visual Mockup

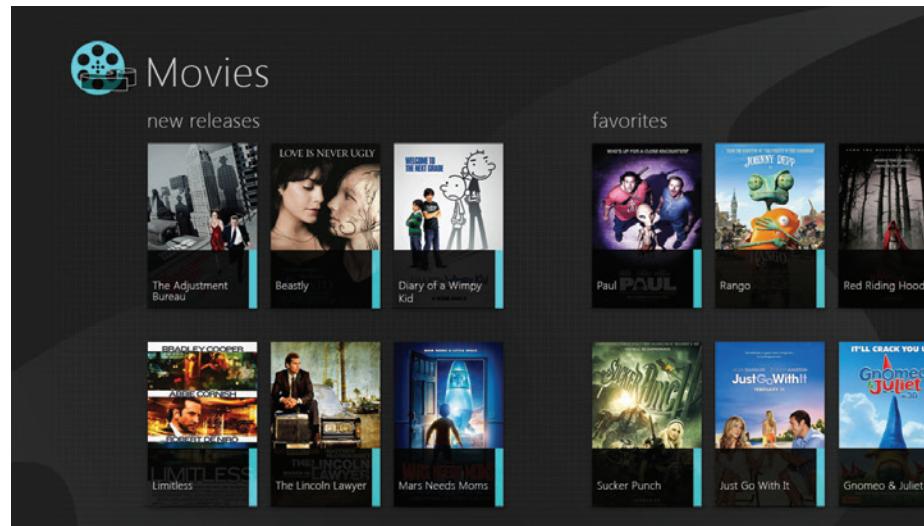
High Fidelity visuals are created to show the real experience of the Windows 8 demo app.

The purpose of the app is to:

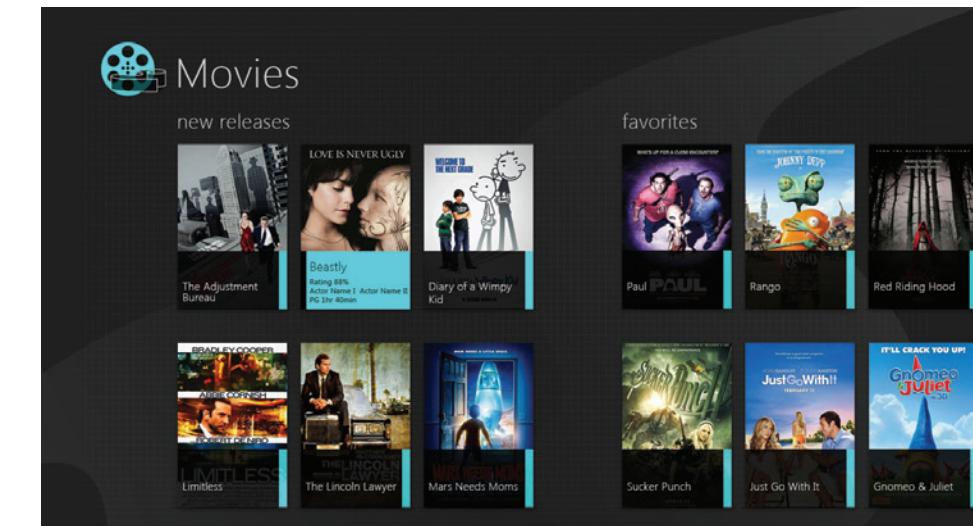
- Share movie ratings
- Discover new movies
- Meet people with similar tastes



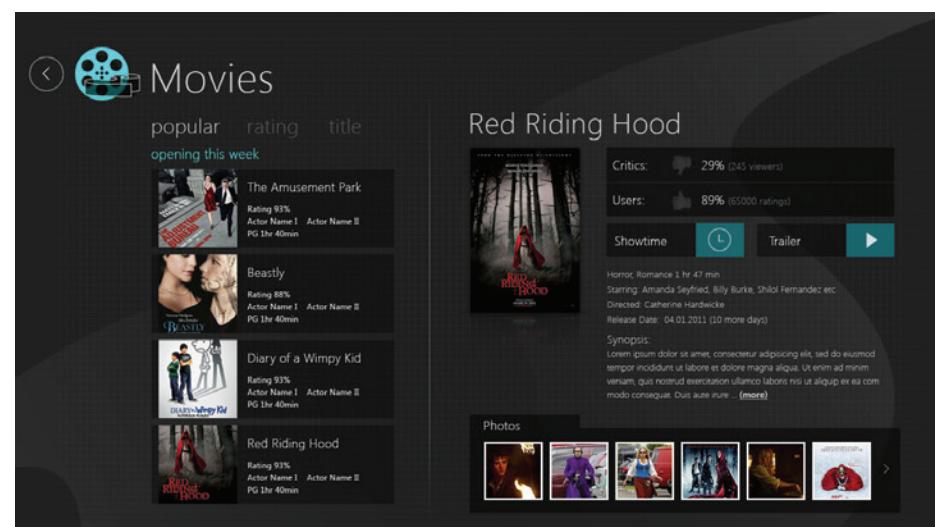
Screen 01: Browse movie type



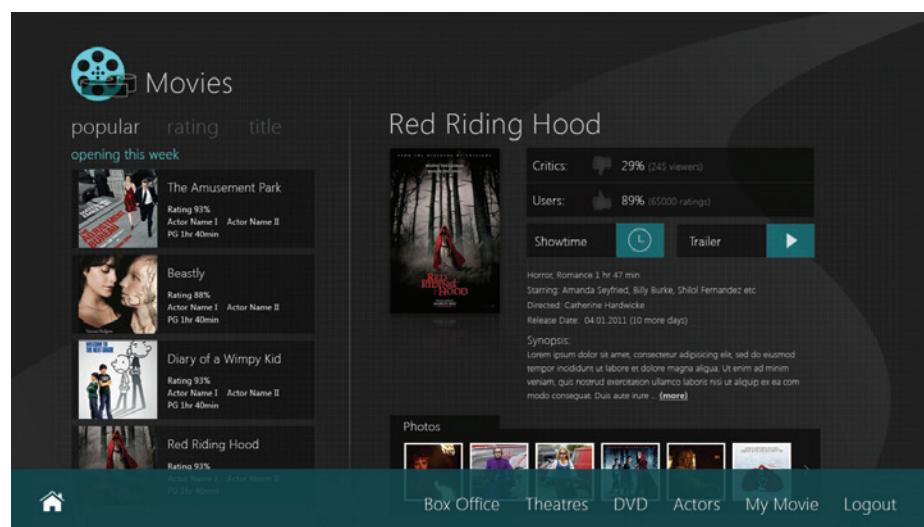
Screen 02: Landing page with movie list



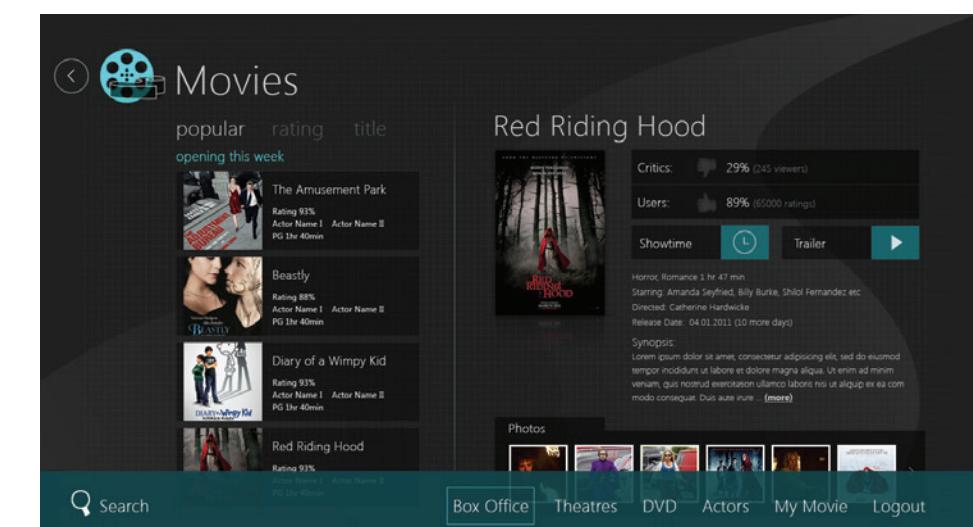
Screen 03: Landing page with movie list - Hover state on the selected movie



Screen 04: Main Movie section



Screen 05: Main Movie section with App Bar



Screen 06: Main Movie section with Search Control

# The Mixes...

## Project involvement

Ideation  
Wireframe  
Concept development  
Redline Documentation  
Graphic Design  
Front End-Development  
Research Studies  
Concept Value Testing for Usability Study

# Web Design Template

# Designed web template - Architectural theme

This image shows a detailed wireframe of a modern architectural website design. The layout includes a header with a large 'architect' logo, a navigation menu, a main content area with sections for 'Welcome note', 'Updated Events', and 'Current Projects', and a footer with contact information and legal links. Various UI elements like buttons, text boxes, and images are highlighted with red boxes and callout lines, along with specific dimensions and font details.

**h1 (architect)**  
Font: Calibri, Arial  
Style: Black  
Size: 1px  
Color: #000  
line: 1px #000 solid

**p (established)**  
Size: 15px  
Color: #666

**NAVIGATION**  
Font: Calibri, Arial  
Size: 11px  
Color: #333  
Hover Color: #FF0000

**P**  
Font: Calibri, Arial  
Size: 12px  
Color: #333  
line height: 22px

**CALL OUT TEXT**  
Font: Calibri, Arial  
Size: 20px  
Color: #ff0000

**DIVIDER**  
Line: Dotted-Line  
Size: 1px  
Color: #ff0000

**h2**  
Font: Calibri, Arial  
Size: 22px  
Color: #ff0000

**P - SUB TITLE**  
Font: Calibri, Arial  
Size: 14px  
Color: #ff0000

**P - TEXT**  
Font: Calibri, Arial  
Size: 12px  
Color: #333  
line height: 18px

**IMAGE**  
width: 80px  
height: 65px  
top: 23px  
left: 32px

**h1 (architect)**  
Font: Calibri, Arial  
Style: Black  
Size: 1px  
Color: #000  
line: 1px #000 solid

**p (established)**  
Size: 15px  
Color: #666

**NAVIGATION**  
Font: Calibri, Arial  
Size: 11px  
Color: #333  
Hover Color: #FF0000

**P**  
Font: Calibri, Arial  
Size: 12px  
Color: #333  
line height: 22px

**CALL OUT TEXT**  
Font: Calibri, Arial  
Size: 20px  
Color: #ff0000

**DIVIDER**  
Line: Dotted-Line  
Size: 1px  
Color: #ff0000

**h2**  
Font: Calibri, Arial  
Size: 22px  
Color: #ff0000

**P - SUB TITLE**  
Font: Calibri, Arial  
Size: 14px  
Color: #ff0000

**P - TEXT**  
Font: Calibri, Arial  
Size: 12px  
Color: #333  
line height: 18px

**IMAGE**  
width: 80px  
height: 65px  
top: 23px  
left: 32px

**h1 architect**  
Font: Calibri, Arial  
Style: Black  
Size: 1px  
Color: #000  
line: 1px #000 solid

**p established**  
Size: 15px  
Color: #666

**ABOUT**  
**OUR PROCESS**  
**PROJECTS**  
**PRESS**  
**CONTACT US**

**37px**  
**Welcome note. Lorem ipsum**, consectetur adipiscing elit. elementum sit amet consectetur eu, mattis et risus. Aenean eu urna vitae nisi sagittis dictum nec non quam. Donec sed luctus massa. Morbi euismod sagittis felis eget blandit. Vestibulum sit amet arcu quam, sit amet porttitor nunc. Vestibulum venenatis lobortis ligula, ac fringilla metus posuere sed. Nunc mi nulla, porttitor ac malesuada vitae, imperdiet sit amet magna. Vestibulum risus nulla, viverra eget aliquam nec, semper congue leo. Pellentesque eu ultricies orci. Mauris in neque tellus. risus nulla, viverra eget aliquam nec, semper congue leo. Pellentesque orci.

**33px**  
**37px**  
**17 px**  
**40px**  
**17 px**  
**Updated Events**  
**01.13.2010**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam erat dui, elementum sit amet consectetur, mattis et risus. Aenean eu urna vitae nisi sagittis.  
  
**01.22.2010**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam erat dui, elementum sit amet consectetur, mattis et risus. Aenean eu urna vitae nisi sagittis.  
  
**01.23.2010**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam erat dui, elementum sit amet consectetur, mattis et risus. Aenean eu urna vitae nisi sagittis.  
  
**01.30.2010**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam erat dui, elementum sit amet consectetur, mattis et risus. Aenean eu urna vitae nisi sagittis.  
  
**35px**  
**22px**  
**p : 425.222.0000 f : 425.222.2222 Suite xox, Lorem Ipsum Redmond WA 99999 email us : info@loremipsum.com ©2010 | privacy policy**

**h3**  
Font: Calibri, Arial  
Size: 22px  
Color: #ff0000

**P - TEXT**  
Font: Calibri, Arial  
Size: 12px  
Color: #333  
line height: 18px

**LINK**  
Font: Calibri, Arial  
Size: 12px  
Color: #ff0000

**IMAGE**  
width: 335px  
height: 253px  
top: 23px

**35px**  
**22px**  
**read more...**

**P - FOOTER**  
Font: Calibri, Arial  
Size: 10px  
Color: #333

**LINK**  
Font: Calibri, Arial  
Size: 12px  
Color: #ff0000

HOME

A template for an architectural firm's website. The header features a large image of a modern building under construction, with the word 'architect' in bold lowercase letters above it. Below the main navigation menu, there is a secondary navigation bar with links like 'ABOUT', 'OUR PROCESS', 'PROJECTS', 'PRESS', and 'CONTACT US'. The main content area includes sections for 'Welcome note', 'Updated Events', and 'Current Projects', each with placeholder text and images. A 'PROJECTS' section at the bottom features a large image of a red and white building, with the word 'design + invent + personal' below it.

ABOUT

A black and white photograph of a modern skyscraper with a grid-like facade, viewed from a low angle looking up. The word "architect" is printed in large, bold letters at the top center, with "established" in smaller letters below it. A sidebar on the left contains navigation links: "ABOUT", "OUR PROCESS", "PROJECTS", "PRESS", and "CONTACT US". A sidebar on the right contains the word "POSITIONS" and a small icon of a house. The bottom of the page features a red house-shaped graphic and some small text.

## PROCESS

A vertical architectural website template featuring a large header image of a modern building at night. The header includes the word "architect" in a large, bold, black font, with "established" in a smaller, italicized font below it. A navigation menu is positioned in the top right corner, listing "ABOUT", "OUR PROCESS", "PROJECTS", "PRESS", and "CONTACT US". Below the header, a section titled "Our Process" features a diagram of a building's floor plan with a red highlighted area, overlaid with a wireframe of the building's exterior. To the right, a large dark triangle contains the text "Slow down". At the bottom of this section is the slogan "collaborate + invent + grow". The main content area is divided into three columns: "Collaborate", "Invent", and "Grow", each containing a small image and a paragraph of placeholder text. A "CONTACT" section follows, also with a large header image and a form for user input.

PROJECT

# architect

established

ABOUT  
OUR PROCESS  
PROJECTS  
PRESS  
CONTACT US

## Our Recent Project

design + invent + personal

---

### **Lore ipsum**

**Client:** ABC Company

**View Project**  
 [Gallery ABC](#)

**Team**  
Project Management  
Architecture  
Design

**Project Description**

Malesuada et amet id estiam nisl quam. Donec et massa. Amet et ame...  
...llam ne sagittis dictum nec donec quam. Donec et fechit et massa. Morbi euismod sagittis felis etiam blandit. Vestibulum ut erat enim quam, et amet porttitor nunc. Vestibulum venenatis lobortis ligula, ac fringilla metus posuere sed. Nisi et nulli, porttitor ac malesuada uter, imperdiet et amet magna. Vestibulum idus nulla, viverra eget aliquam nec, semper congue etiam. Pellentesque eu ultricies orci. Maus in neque tellus risus nulla, viverra eget aliquam nec, semper congue leo.

Nam ex justo et amet urna felis natus. Duis ut dolor dolor. Nam frig...  
...amendamus lobortis. Aliquam augue turpis, fringilla id ornare ut, varius in tincidunt. Mauris dignissim quam etiam erit adipiscing vel nulli facilis fechit.

Nisi et nulli, porttitor ac malesuada uter, imperdiet et amet magna.

© 2018 | [privacy policy](#)

NEW

**architect**  
established

ABOUT  
OUR PROCESS  
PROJECTS  
NEWS  
CONTACT US

**News 2010**

| S  | M  | T    | W  | T      | F  | S    |  |
|----|----|------|----|--------|----|------|--|
| 1  | 2  | 3    | 4  | 5      | 6  | 7    |  |
| 8  | 9  | 10   | 11 | 12     | 13 | 14   |  |
| 15 | 16 | 17   | 18 | 19     | 20 | 21   |  |
| 22 | 23 | 24   | 25 | 26     | 27 | 28   |  |
| 29 | 30 | july |    | august |    | sept |  |

08.09.2010  
**Lorem Ipsum Dolor Sit Amet**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed et eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laetare, totam rem aperiam, eaque ipsa quae ab illo inventore veritas et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem qui velutatis et operari aut est id est laborum. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

08.07.2010  
**Lorem Ipsum dolor sit amet.**

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p. 429.222.000 F. 429.222.000 Suite 100, Laramie, Wyoming WY 82001 email: s. info@architects.com © 2010 | architectzine.com

CONTACT

The image shows a website template for an architectural firm. The header features the word "architect" in a large, bold, black font, with "established" in a smaller font below it. A navigation menu includes links for "ABOUT", "OUR PROCESS", "PROJECTS", "NEWS", and "CONTACT US". The main content area has a background collage of various architectural photographs. A section titled "Contact Information" contains placeholder text for address, phone number, fax, and email. Below this is a feedback form with fields for Name, Company, Email, and Message, each represented by a horizontal bar. At the bottom are "CLEAR" and "SUBMIT" buttons.

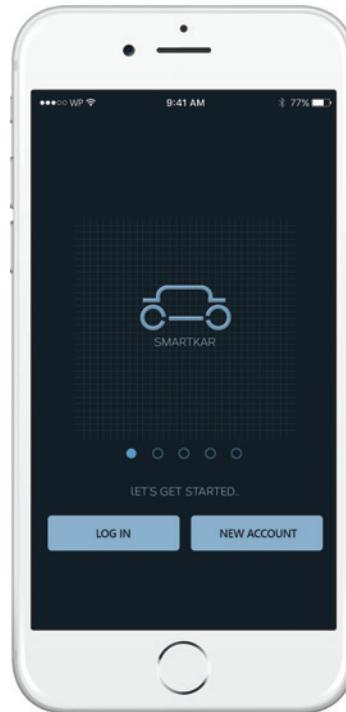
# MyDriving App

An Azure IoT and cross-platform mobile sample application

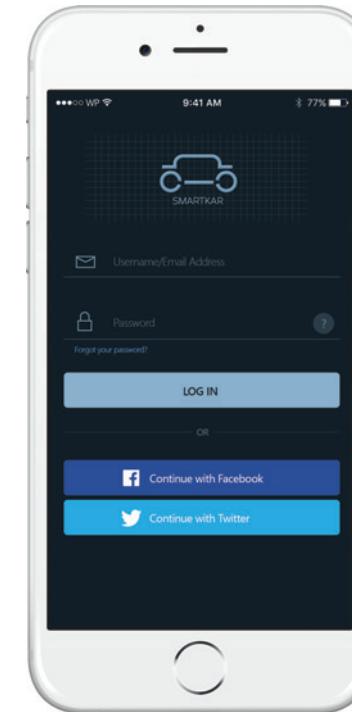
<https://azure.microsoft.com/en-us/campaigns/mydriving/>  
<https://github.com/Azure-Samples/MyDriving>

At Build 2016, we've designed a scalable cross platform IoT service and mobile application - iOS, Android, and Windows. This app uses a wide range of Azure services to process and analyze car telemetry data for both real-time insights and long-term patterns and trends. My role in this project is to drive design direction, layout, and worked with engineers on final implementations. We have created three sets of design to accomodate each native platform.

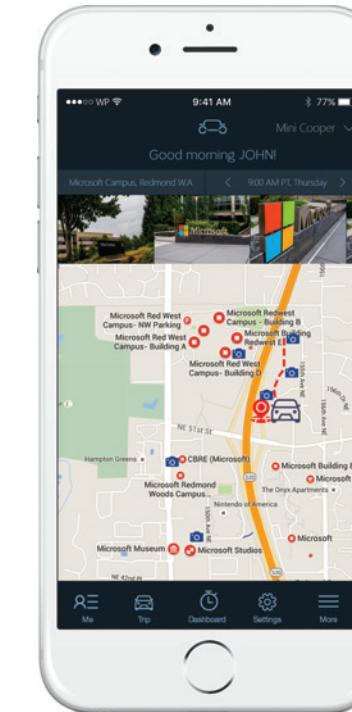
GETTING STARTED



LOG IN



RECORDED TRIP



EMISSIONS



DRIVER PROFILE



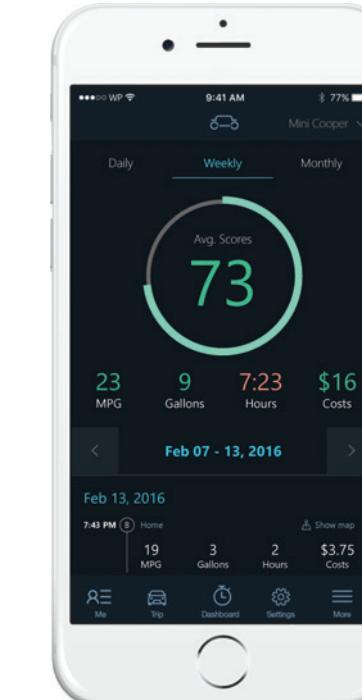
DASHBOARD 01



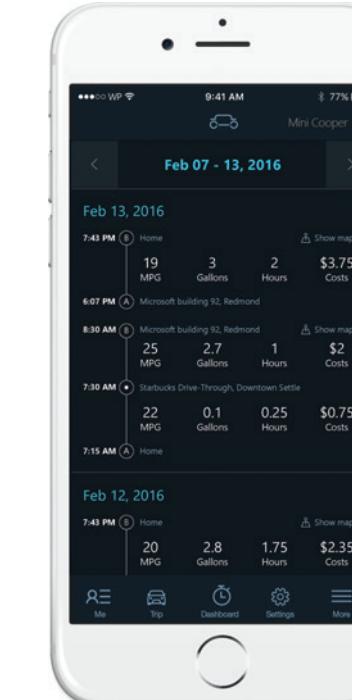
DASHBOARD 02



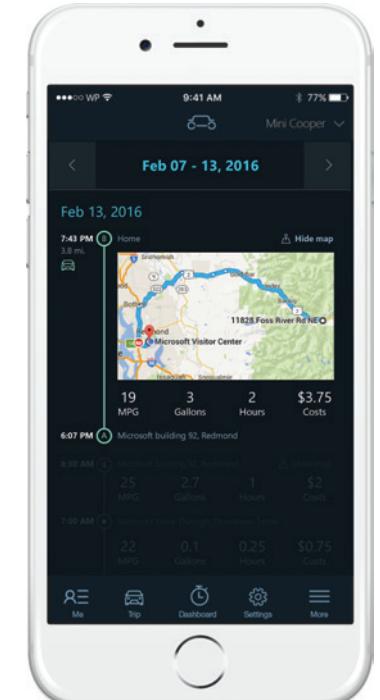
TRIP VIEW



TRIP VIEW



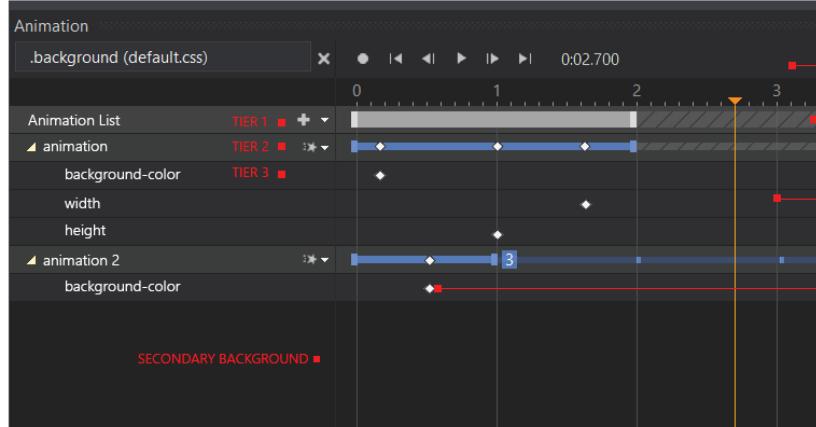
SHOW MAP



# Redlines Documentation - Theming

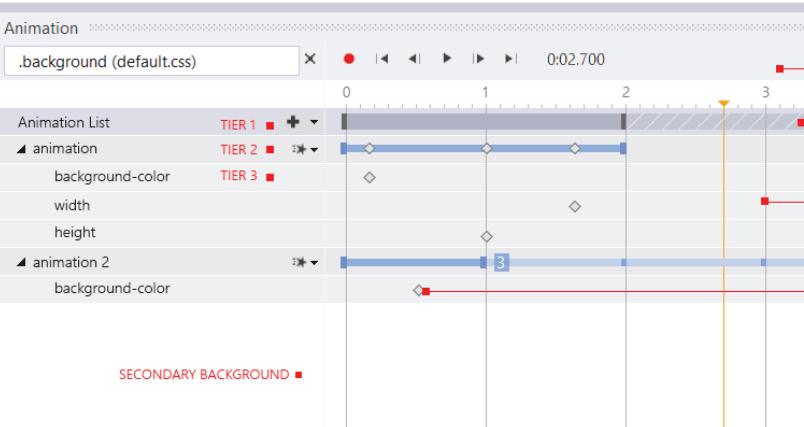
## Timeline Animation Layout for HTML in Visual Studio

### DARK THEME



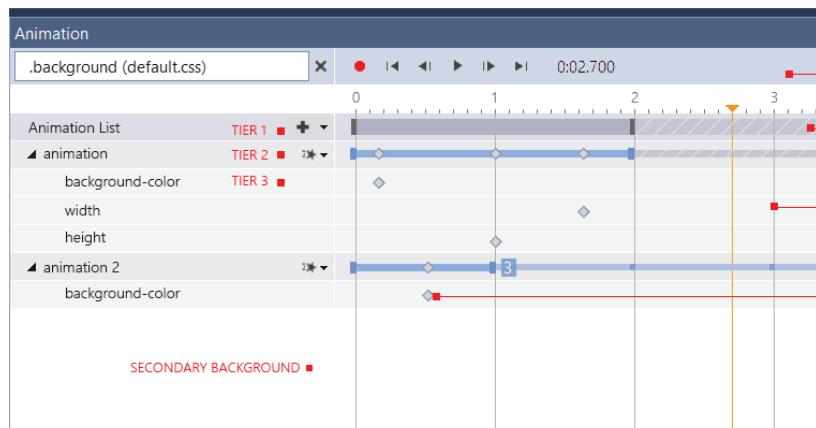
Toolbar  
Environemnt.CommandBarGradientBegin  
Environemnt.CommandBarGradientEnd  
Environemnt.CommandBarGradientMiddle  
  
ToolWindow Rows  
\*Cider.SecondaryBackground - FF252526  
Cider.Tier1Background - FF424242  
Cider.Tier2Background - FF3C3C3C  
Cider.Tier3Background - FF303033  
  
TimelineGuide - FF4F4F4F  
  
KeyframeDiamondbackground - FFF1F1F1  
KeyframeDiamondborder - FF515152  
  
Fillmode Background - 33A6A6A6  
Fillmode Stripe - FF404040

### LIGHT THEME



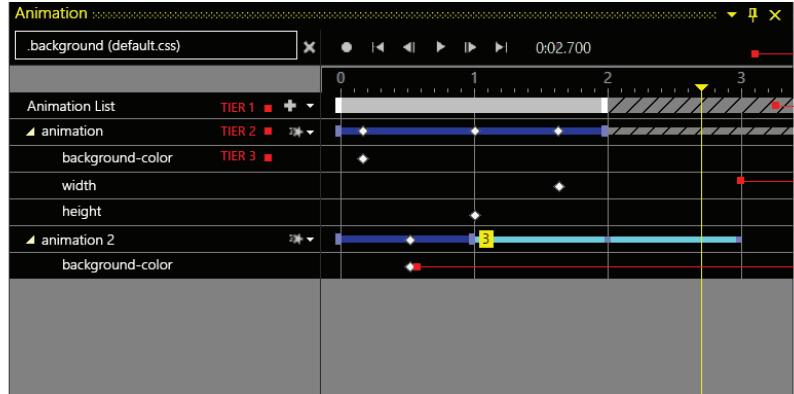
Toolbar  
Environemnt.CommandBarGradientBegin  
Environemnt.CommandBarGradientEnd  
Environemnt.CommandBarGradientMiddle  
  
ToolWindow Rows  
\*Cider.SecondaryBackground - FFFFEEEE  
Cider.Tier1Background - FFDCDCE4  
Cider.Tier2Background - FFE8E8EC  
Cider.Tier3Background - FFEEEEE0  
  
TimelineGuide - FFB4B4B4  
  
KeyframeDiamondbackground - FFE0E0E0  
KeyframeDiamondborder - FF949494  
  
Fillmode Background - 7FB0B2C3  
Fillmode Stripe - 66FEFEFE

### BLUE THEME



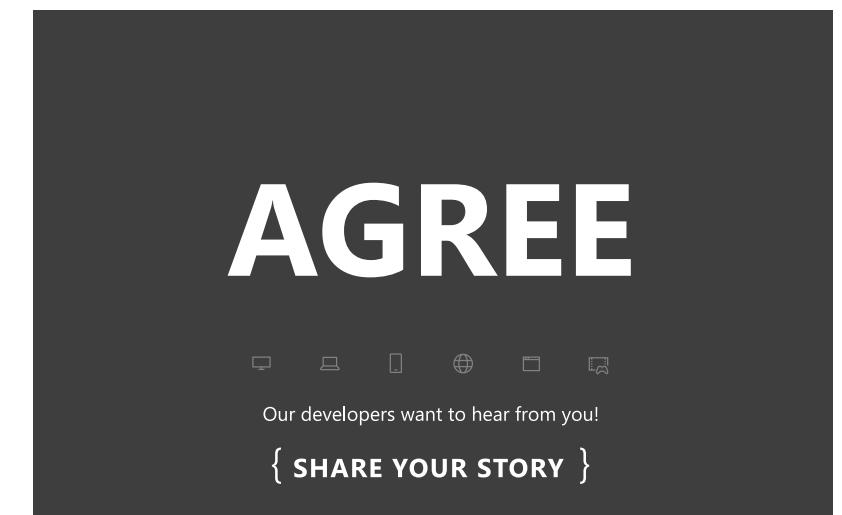
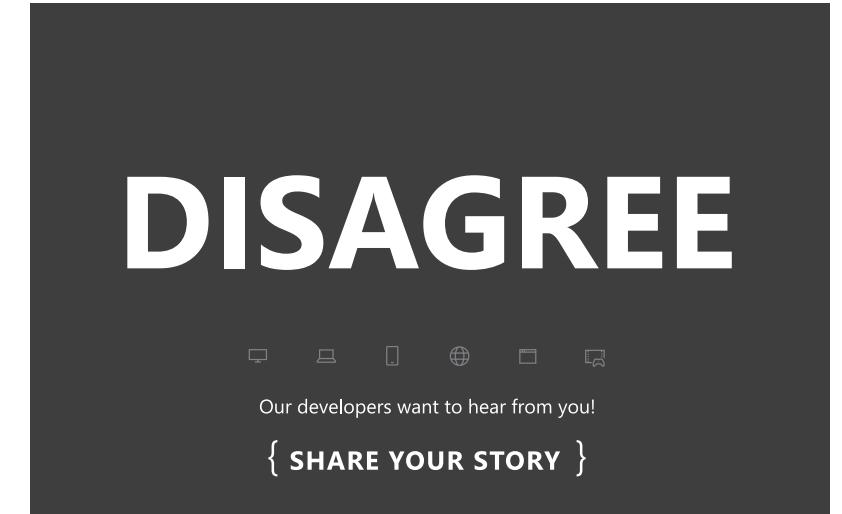
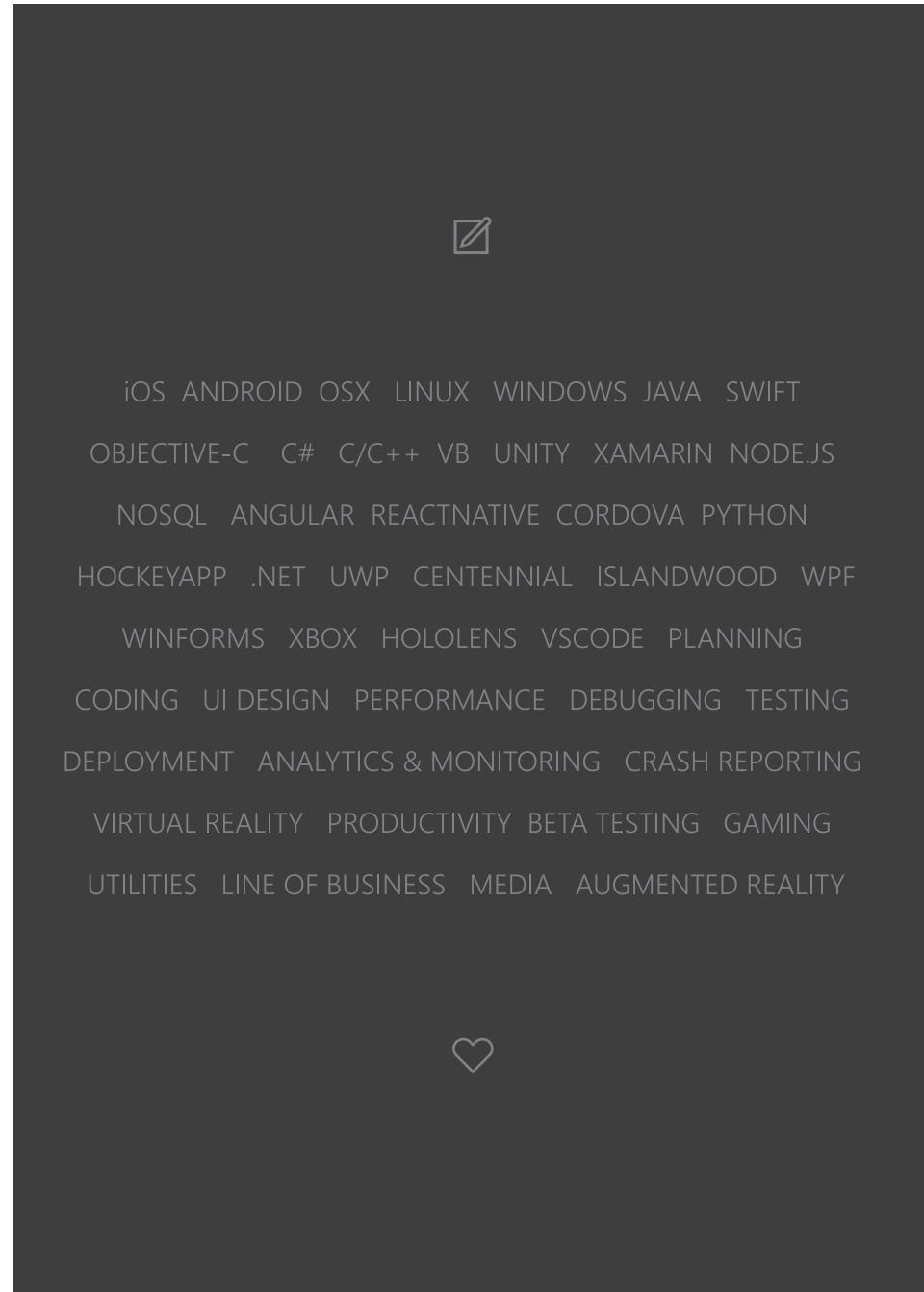
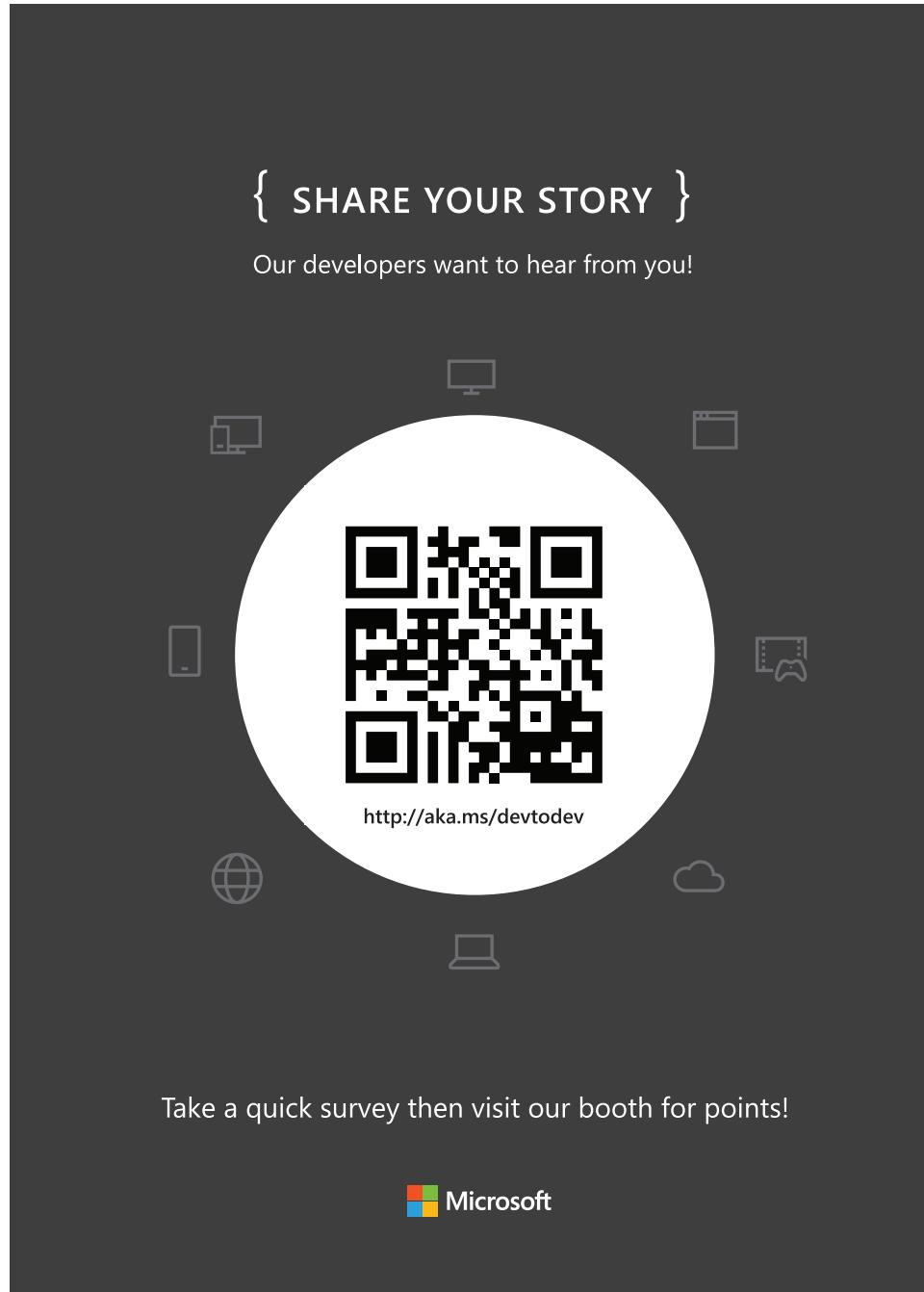
Toolbar  
Environemnt.CommandBarGradientBegin  
Environemnt.CommandBarGradientEnd  
Environemnt.CommandBarGradientMiddle  
  
ToolWindow Rows  
\*Cider.SecondaryBackground - FFFFEEEE  
Cider.Tier1Background - FFDCDCE4  
Cider.Tier2Background - FFE8E8EC  
Cider.Tier3Background - FFF1F1F1  
  
TimelineGuide - FFB4B4B4  
  
KeyframeDiamondbackground - FFCED4DD  
KeyframeDiamondborder - FF919EC0  
  
Fillmode Background - 7FB0B2C3  
Fillmode Stripe - 66FEFEFE

### HIGH CONTRAST THEME



Toolbar  
Environemnt.CommandBarGradientBegin  
Environemnt.CommandBarGradientEnd  
Environemnt.CommandBarGradientMiddle  
  
ToolWindow Rows  
Cider.SecondaryBackground - ControlDark  
Cider.Tier1Background - Control  
Cider.Tier2Background - Control  
Cider.Tier3Background - Control  
  
TimelineGuide - ControlDark  
  
KeyframeDiamondbackground - ControlText  
KeyframeDiamondborder - Control  
  
Fillmode Background - ControlDark  
Fillmode Stripe - Control  
  
TimelineDurationKeyframe - Active Caption  
TimelineDurationBarKeyFrameGripper - HotTrack  
TimelineDurationBarGripper - ControlLight  
TimelineDurationBarSelector - ControlLight  
TimelinePlayhead - Infotext  
TimelineDurationBarIterationLabel - InfoText/Info  
TimelineDurationBarIteration - InactiveCaption  
TimelineDurationBarIterationDivider - HotTrack

## Research Material - Survey Card



# Research Material - Persona Development

# Brody

AAA GAME DEVELOPER



**DELIGHTERS**

- Seamless asset management
- Cross-platform development
- Decent graphics debugging and profiling

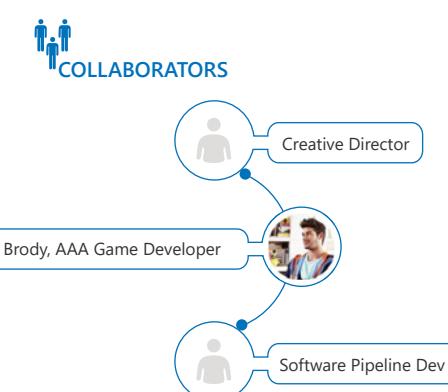
**PAIN POINTS**

- No IntelliSense for shader languages
- No real-time support and active preview
- Downtime waiting for rebuilds and program loads
- Drudge coding

**SKILLS & EXPERTISE**

|                |       |
|----------------|-------|
| Unreal Engine  | ★★★★★ |
| Game Engines   | ★★★★★ |
| C++            | ★★★★★ |
| DirectX/OpenGL | ★★★★★ |
| HLSL/GLSL      | ★★★★★ |

**COLLABORATORS**



**"I am a gamer making games for gamers!"**

I lead the game engine extension and special effects team. We extend the game engine and write custom algorithms we need to give our game designers the best gameplay possibilities. I love that games go beyond just telling stories to letting gamers have amazing experiences. I love the combination of the studio mentality with bleeding edge technology.

See details at <http://devdiv/personas>

## Tomàs

SERVICES DEVELOPER



**DELIGHTERS**

- Reusable code and components
- Resilient services
- Performant code
- A/B testing
- Packet-level debugging tools

**PAIN POINTS**

- Coding in cloud code
- Time required to get started
- Diagnosing service issues

**SKILLS & EXPERTISE**

|             |       |
|-------------|-------|
| SOA         | ★★★★★ |
| REST API    | ★★★★★ |
| .NET        | ★★★★★ |
| Open Source | ★★★★★ |

**COLLABORATORS**



**"It has got to be elegant!"**

I am passionate about developing internally and externally consumed services that simplify development. My skill is in coding mission-critical systems that are robust, scalable, and performant. My experience helps me understand how components fit together within complex systems.

See details at <http://devdiv/personas>

## Priya

ISV/HV/SI DEVELOPER



**DELIGHTERS**

- IntelliSense improvements for C++
- Compiler vectorization
- Fitting within small device footprints
- Cloud build servers
- Automated testing

**PAIN POINTS**

- Using Visual C++ with open source libraries
- Lack of compiler consistency

**SKILLS & EXPERTISE**

|        |       |
|--------|-------|
| C      | ★★★★★ |
| C++    | ★★★★★ |
| Lua    | ★★★★★ |
| F#     | ★★★★★ |
| C#     | ★★★★★ |
| Python | ★★★★★ |

**COLLABORATORS**



**"Code is my brush and hardware my canvas!"**

I have founded two companies and I am currently a developer at an engineering solution provider. We work as a team that learns by doing and trying. We excel at combining software and hardware to make amazing devices. We are systems thinkers who tackle hard and neglected topics like scaling, performance, and memory efficiency.

See details at <http://devdiv/personas>

## Lamar

TECHNICAL LEAD



**DELIGHTERS**

- Advanced project visibility
- Rampant reuse

**PAIN POINTS**

- Being caught between competing objectives
- Not being thoughtful in our decisions
- Setup and integration of new products with our environment
- Move the relationship forward between the dev team and operations

**SKILLS & EXPERTISE**

|                                |       |
|--------------------------------|-------|
| Application Architecture       | ★★★★★ |
| Integrate legacy with new apps | ★★★★★ |
| JAVA                           | ★★★★★ |
| Github                         | ★★★★★ |
| .NET                           | ★★★★★ |

**COLLABORATORS**



**"I need to balance the future with the past!"**

I'm both a senior developer and architect for our development teams. I own the convergence of business goals with technical solutions. I design complex, scalable, enterprise, cloud computing solutions, and re-engineer existing solutions all while reducing costs.

See details at <http://devdiv/personas>

## Maria

WEB APP DEVELOPER



**DELIGHTERS**

- Expressive scripting languages with cutting edge frameworks
- Preserving and breaking directly in the browser
- Creating beautiful app experiences

**PAIN POINTS**

- Voodoo pixels
- When my code is lost in translation in the browser
- Green HTML that doesn't run everywhere

**SKILLS & EXPERTISE**

|            |       |
|------------|-------|
| PHP        | ★★★★★ |
| HTML5      | ★★★★★ |
| CSS        | ★★★★★ |
| Photoshop  | ★★★★★ |
| JavaScript | ★★★★★ |

**COLLABORATORS**



**"I'm all about 'responsive' design!"**

I am a self-starter who thrives in a dynamic environment, with strong programming skills and the desire to work on a variety of projects. I get satisfaction from building web applications that are visually desirable and easy to use. I love a solution for building web apps across multiple platforms that leverages my knowledge of web technologies. I am drawn to open source frameworks.

See details at <http://devdiv/personas>

## Stefan

APP STORE DEVELOPER



**DELIGHTERS**

- Building, measuring, and learning in two weeks
- Finding the tool that is the most productive

**PAIN POINTS**

- Bug, complex tools
- No usage or telemetry data
- Redebugging a deployed app

**SKILLS & EXPERTISE**

|             |       |
|-------------|-------|
| Android SDK | ★★★★★ |
| iOS SDK     | ★★★★★ |
| XCode       | ★★★★★ |
| Java        | ★★★★★ |
| Objective C | ★★★★★ |
| Eclipse     | ★★★★★ |

**COLLABORATORS**



**"I'm a visionary - doing what's next now!"**

I deliver engaging mobile apps that operate across various platforms and hardware configurations. I want to use the best tools, visual design technologies, online sources, and languages for the job. I am not tied to any tool or brand. My work style is iterative and engages users for quick feedback throughout the development process.

See details at <http://devdiv/personas>

## Peter

LOB APP DEVELOPER



**DELIGHTERS**

- Adding business value through technology
- Starting and finishing apps rapidly
- Using tools that leverage my skills

**PAIN POINTS**

- Building separate versions of apps
- Using a mix of disconnected tools
- Customizing UI

**SKILLS & EXPERTISE**

|            |       |
|------------|-------|
| WinForms   | ★★★★★ |
| ASP.NET    | ★★★★★ |
| C#         | ★★★★★ |
| HTML       | ★★★★★ |
| JavaScript | ★★★★★ |

**COLLABORATORS**



**"I love clicks over code!"**

I've been building apps for various departments for a long time and my best days are when I can deliver an app to a team that helps them do their job. The best apps are ones I can compose from existing code, components, and controls. I'm building apps for all of the different devices my customers use and taking full advantage of the cloud to store state and business logic.

See details at <http://devdiv/personas>

# Thank you!

Will be in touch...

linkedin: <https://www.linkedin.com/in/lenayeoh>

email: [yeohlena@gmail.com](mailto:yeohlena@gmail.com)

portfolio: [www.lenayeoh.com](http://www.lenayeoh.com)