

236 Project 2: Responsive User Interface Design

For Project 2, teams of 4 (Quixotic Quartets) will design an interactive UI for a mobile (phone and tablet) app, game, or website.

The scenario: You are a startup company designing a UI for your very first app, game, or website. To optimize the marketability of your product, you will responsively design versions for a phone and tablet.

The workflow of Project 2 is divided into four phases:

Phase I. Discover – deliverables due week 11

Phase II. Define – deliverables due weeks 12

Phase III. Design – deliverables due weeks 13-15

Phase IV. Deliver – deliverables due week 16 (Finals week)

Red Alert! Red Alert!

All deliverables are due by the start of the *first class* of the week.

After that, they're late and their grade gets docked by one full letter (B→C, etc.).

General Deliverable Requirements (worth 10% of each deliverable's grade):

1. Fill out a work table for the week's deliverables.

For instructions, see the Rules of Team Work (myCourses/Content/Assignments).

2. Submit ONE file that contains all the week's deliverables.

If a week's deliverables are all .doc files, put them all in one .doc file. If they are mixed file types, zip them into one zip file.

3. Lay out and format to optimize usability for your client (= me!).

Indent functionally, style consistently, use bulleted lists, start sections on new pages.

Use page breaks (Ctrl+Enter on PCs) to paginate, not blank paragraphs.

4. Write properly: spelling, punctuation, syntax, grammar.

This is a writing-intensive course, so write ... intensely!

Note: Assignments in gray are not yet finalized. I left them in so you can get an idea of what's coming. Don't start (serious) work on them until they are un-grayed (i.e. in black).

Phase I. Discover

Week 10 Deliverables

The Week 10 deliverables are all due by the start of the second class of Week 10.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file (.zip if necessary) that contains all the week's deliverables.
3. Lay out and format your submissions to optimize readability and understandability.
4. Write properly: spelling, punctuation, syntax, grammar.

Remember: Satisfy your client (me!) by making all your 236 documents "beautiful": well organized, laid out, formatted, aesthetically pleasing, etc.

Project 2 UI Description (20)

1. Create a Word (or equivalent) document containing:
 - The name and a concise description of your Project 2 app, game, or website
 - Links to, text descriptions, and screenshots of 3 UIs similar to yours

Contextual Inquiry (35)

1. Using the Contextual slideshow (from week 2) as a guide, interview 4 users who are likely to use your Project 2 UI.
 - Ask each user a set of questions (minimum: 4) designed to help you understand what they would need and want from your Project 2 UI.
 - Your choice: Use the same questions for each interview, or customize your questions for each user.
2. For each user interview create a report that contains:
 - The name and a description of the user
 - Each question you asked and a synopsis of each answer
 - 4 conclusions you drew from the interview about what your users need and want from Project 2

Context Analysis (35)

1. Using the Contextual Analysis slideshow (week 2) as a guide, do a context analysis for your company.

Include all of these in your context analysis report:

- Analysis goals – short 'n sweet
- External trends – describe (briefly!) how each of the five trends on the External Trends slide affect the company

- Competitor analysis – analyze the company and two competitors in a one-page table similar to the one on the Competitor Analysis Table slide
- Strengths and weaknesses + Opportunities and threats – present in a SWOT table, as shown on the SWOT Analysis slide
- Company brand – describe the company brand/identity and how you will design the UI to support and promote this brand

Phase II. Define

Week 11 Deliverables

The Week 11 deliverables are all due by 11:59 pm on the first class day of week 11.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

Mind Map (25)

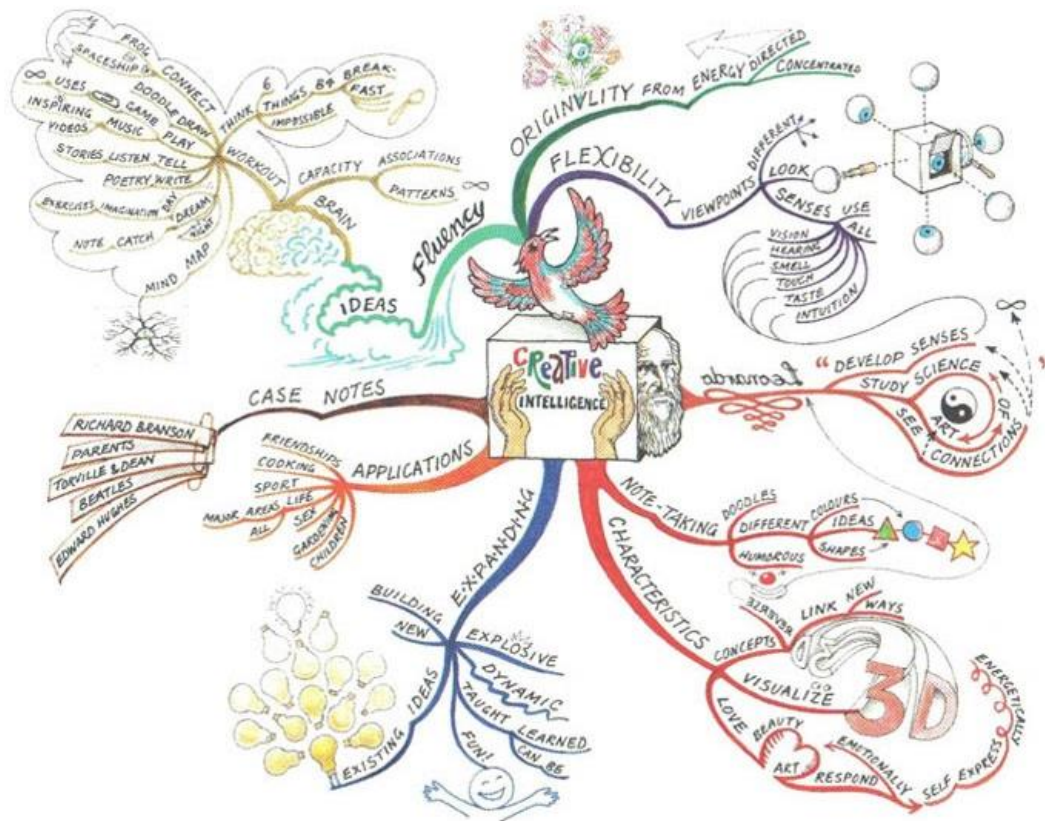
1. Using this video [youtube.com/watch?v=tAU5Z9eiorY](https://www.youtube.com/watch?v=tAU5Z9eiorY) or this written tutorial [wikihow.com/Make-a-Mind-Map](https://www.wikihow.com/Make-a-Mind-Map) – or another source of your choice – create:

- A hand-drawn (paper or drawing tablet) mind map of your app/site/game.

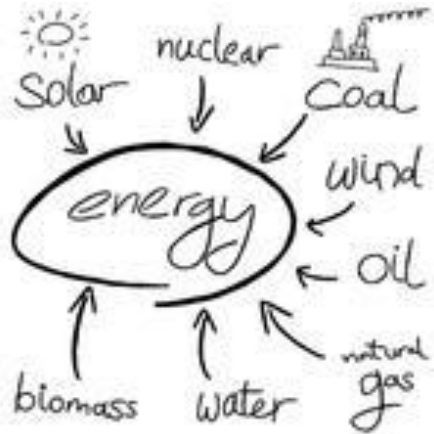
Note: Do this as a team! It defeats the brainstorming nature of a mind map for one person to do it alone; it needs to be a group-mind activity. (Think: Borg).

2. Submit a photo (good quality) or scan of your hand-drawn mind map.

Example: Mind map (A++ quality)



Example: Mind map (C/D quality)



Product Goal Statement (25)

Using the Product Goal Statement slideshow (week 3) as a guide, create a product goal statement for your UI that includes:

- Context
- Problem — formulate per instructions in the 2. Problem to be Solved slide.
- Solution
- Theme — make sure to pick a *theme*, not a mere descriptor.

Personas (40)

Using the Personas slideshow (week 3) as a guide, create 3 personas for your UI:

- Primary persona
- Secondary persona
- Tertiary persona

Include everything described on the What Goes In A Persona slide.

Week 12 Deliverables

The Week 12 deliverables are all due by 11:59 pm on the first class day of week 12.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

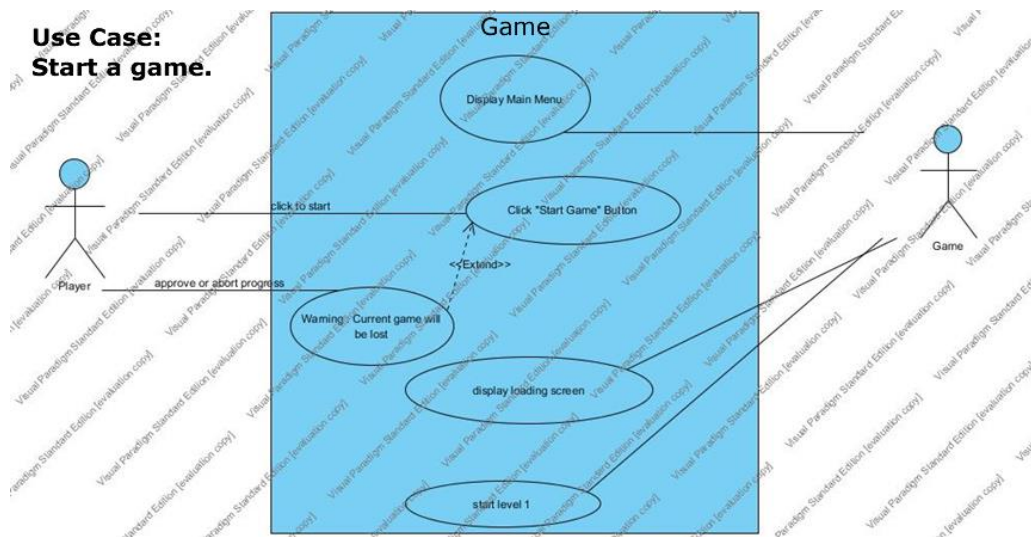
Use Cases/Scenarios (50)

Using the Use Cases/Scenarios slideshow and Project 1 as guides, create:

- 4 written use cases – each for a critical use case for your game
- 4 use case diagrams – one for each of the 4 written use cases
 - Include ALL of these in your diagrams (see slideshow):
 - System box (different background color than rest of diagram)
 - Actor(s) (use stick figures or similar)
 - Associations (lines connecting actors and use case rectangles)
 - Extensions (remember: the <<extend>> keyword points to base case)
- 4 use case scenarios – one for each of the 4 use cases
 - Make your stories compelling and specific (detailed), but not long.

Examples: Use case written, diagram, and scenario (A quality) _____

Name of Use Case	Player starts a new Game
Goal	Starting a new game
Description	The player starts the game and selects “new game” to start from the beginning
Actors	Player, Game
Preconditions	Game is running and started
Main Success Scenario	1. The Game displays the Main menu 2. The player finds the “New Game” button 3. The Player clicks the “New Game” button 4. The Game displays the loading screen 5. Level 1 begins
Extensions	3a. Game has been played before Warning that a new game would overwrite the auto saves from the last played game and progress might be lost
Postconditions	Level 1 Starts



Kyle, a 23 year old male had classes until 6 pm today. So he is real exhausted by all the very important information the teachers shared with him today. He walks to his computer and starts the new shoot-em-up game he installed a few days ago. After all the company logos the Main Menu finally pops up. Because the button on the top says continue, he knows he already has a played this game once. But today he wants to play from the beginning to the end in one go. He selects new game and immediately the warning: "Your Auto-Save will be overwritten if you start a New Game" pops up. Well aware of this fact Kyle continues. The Level 1 Loading screen appears: "Take that Alien scum!"

Examples: Use case written, diagram, and scenario (C/D quality) _____

USE CASE NAME	Atlas shows recommended movies
GOAL	To provide entertainment and make a profit
DESCRIPTION	People see recommended movies
ACTORS	Customer (subscriber), Atlas
PRECONDITIONS	Users have internet connection
MAIN SUCCESS SCINARIO	<missing>
EXTENTIONS	<missing>
POSTCONDITIONS	User enjoys there entertainment

USER	< Goes to Atlas.com and registers an account	Atlas
	Displays movies >	
	^Shows recommendations/ no data	
	< Selects movie	
	Displays selection's content link >	
	< Watches	

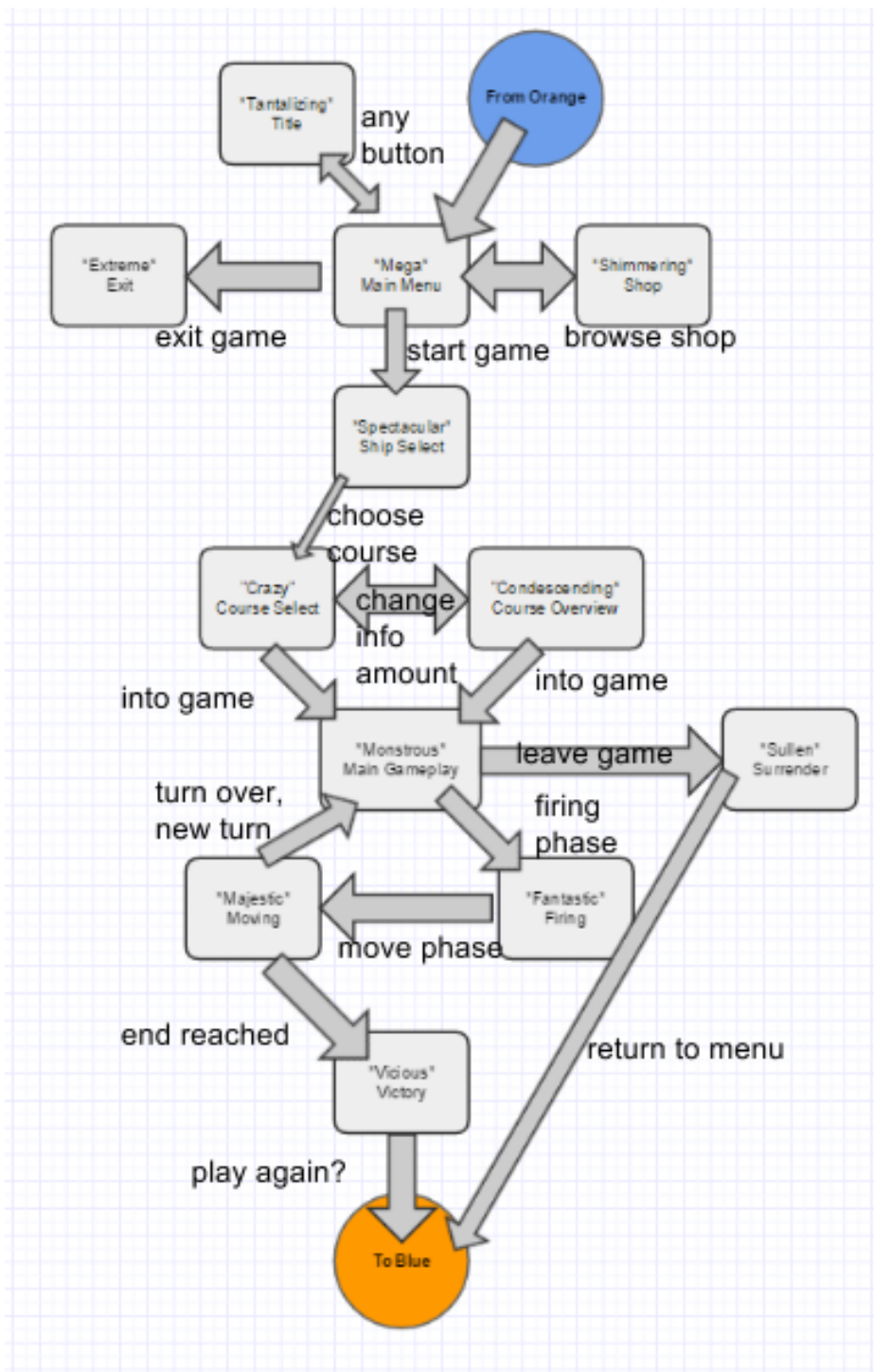
Tommy wants to watch a movie but doesn't know what. He chooses a movie and is presented a link to another website where it is located. He clicks the link.

Functional Specification (40)

Using the Functional Specification slideshow and Project 2 as guides, create:

- An annotated screen flow diagram of all the screens/pages in your app/site/game. Include:
 - At least 12 screens/pages, no more than 20.
 - A succinct (but not TOO minimal!) functional description of each screen/page.

Example: Functional spec (A quality) _____



***Tantalizing* Title:** An intro screen to the game with a intro sequence before staying on the title screen for a certain amount of time before replaying the intro. From here the game can go to the main menu screen.

***Mega* Main Menu (single/multi-join-host):** This screen gives the player the options to play single player, host a game, join a game, browse the shop, or exit the game.

***Shimmering* Shop Screen:** This screen shows the available paint jobs and other decorations that do not affect gameplay but will customize their ship and possibly their UI design theme. It also shows how much money the player has to spend on the items. You can only head back to the main menu when finished buying or browsing.

***Spectacular* Ship Select:** This screen shows a line-up of the ship types for the player to choose. Once the player has selected their ship and skins, the game proceeds to the course select screen.

***Crazy* Course Select:** The players views images of each course available and can either choose to select one just from the image or click the overview before deciding. The player can either head into the gameplay screens or to the course overview.

***Condescending* Course Overview:** Players view more detailed information on the selected course such as a map of the course and its length. This screen can lead back to the course select or into the gameplay screens.

***Monstrous* Main Gameplay (Resources Optional):** Players allocate resources into different categories such as movement, firepower, or defense. Resources do not need to be allocated and can be saved for a different turn. Once the player has finished allocating, the screen changes to the firing screen. This is also the part of the turn where the player can surrender to end the game early.

***Fantastic* Firing Gameplay (Optional):** Players choose which ship to shoot at using their allocated firepower. They can click other players ships to see which part they wish to aim for, the hit probability, and the firepower it will take to reach the ship. Once done, the screen moves onto the move screen.

***Majestic* Moving Gameplay (Optional):** Players plot out their move for the turn using up their movement resources allocated earlier. Should the player cross the finish line the game ends and heads to the victory screen. Otherwise the turn ends and returns to the main game screen.

***Sullen* Surrender:** A player decides that they should, for any reason they desire, no longer continue their struggle in their race against all odds. Upon choosing this option, they are removed from the game with a status of defeated. They will then be sent back to the main menu.

***Vicious* Victory Screen:** A player has crossed the finish line, thus ending the game. The results of the race are shown here with the player's placing bolded in some way. Also, credits or some other shop currency is given out here. The player then moves back to the main menu screen.

***Extreme* Exit Screen:** The player no longer desires to play. How disappointing. Well it must happen from time to time, so a lovely little goodbye message is displayed, with some hopeful encouragement for them to return at a later point in time to this masterpiece of a game.

Example: Functional spec (C/D quality) _____



<annotations missing>

Phase III. Design

Week 13 Deliverables

The Week 13 deliverables are all due by 11:59 pm on the first class day of week 13.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

Word List (10)

Using the Word Lists + Mood Boards slideshow (week 5) as a guide, create:

- A (nicely laid out and formatted) list of 1 theme and 10 potent words (or short phrases) that describe the look and feel of your Project 2 app/site/game.
 - A person should be able to look at your list and get a fairly accurate sense of what it might be like to use the app/site/game.
 - Make sure your theme is not just a descriptor (Fast Flashy Fun Ride), but touches on deep human values (Personal Freedom).

Example: Word list (A quality) _____

Theme	Word List
American	passion, pride, loyalty, freedom, tough, rugged, original, equality, spirit

Example: Word list (C/D quality) _____

Rugged: Rough, tough, intense.

Mood Boards (30)

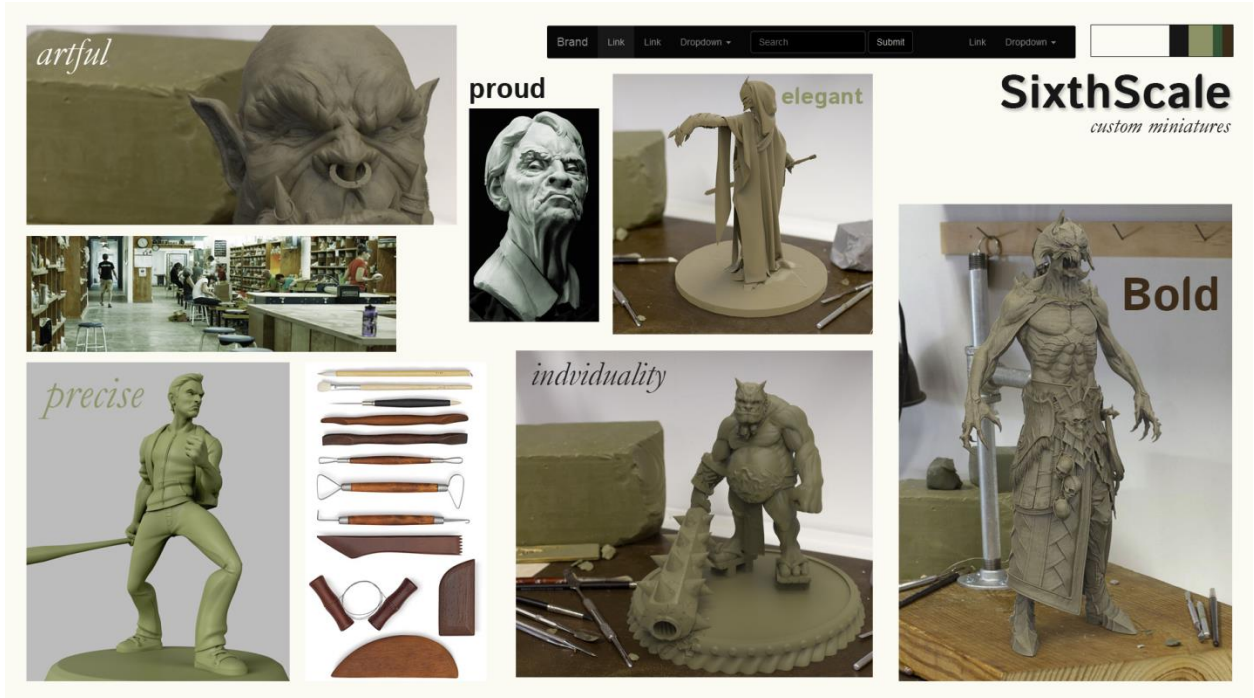
Using the same slideshow as a guide, EACH INDIVIDUAL TEAM MEMBER* create:

- A mood board that depicts *your* desired look and feel of the app/site/game.
 - You can discuss, as a team, the look and feel of the project. But don't share details about your individual mood boards. Keep them to yourself. That way, you will end up with four distinct visions of the app/site/game, which gives you a bunch of directions to choose from for the actual app/site/game.
 - Include, in each mood board:
 - Images: at least 6, more if needed
 - Colors: the 6 images should show your UI's colors, and you should also include a color scheme swatch (from Kuler or Paletton)
 - If you're going for a textured look, show the textures.

- Text: 1 theme + 5 best words from your word list, game name, perhaps a snazzy catchphrase or two, all in font typefaces, sizes, colors, etc. that reflect your app/site/game design
- Layout: intentional (not random), reflect your desired layout and feel

* So a team of 4 submits a total of 4 mood boards, one from each member.

Example: Mood board (A quality)



Example: Mood board (C/D quality)

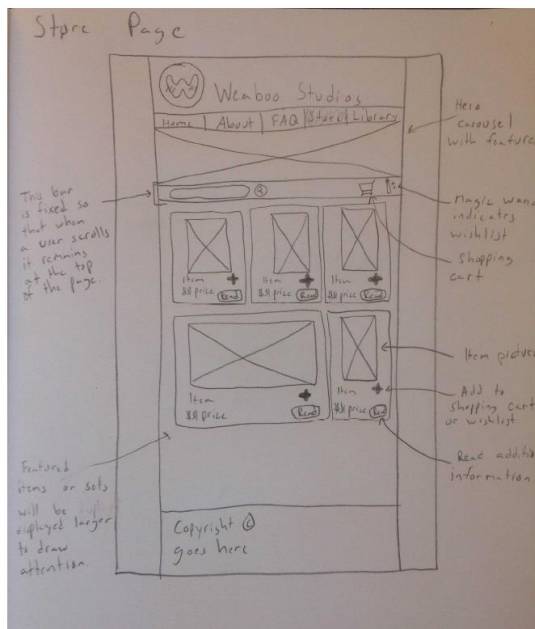


Sketches (15) + Wireframes (25)

Using the Layout, Sketches, Wireframes, and Mockups slideshow as a guide:

1. Hand-draw sketches of 4 screens from your game.
 - Design the screens for the "default" device they will be displayed on: desktop/laptop, tablet (portrait or landscape), or phone (portrait or landscape).
 - Later on you will create versions of each screen for each device type. But don't worry about that now.
 - Use pencil/paper or drawing tablet, your choice.
 - Choose relatively complex screens with significantly different layouts.
 - Include all the elements you would find on similar professional-quality screens.
2. Create a total of 4 wireframes, one for each screen sketch.
 - Make digital wireframes in a graphics program, do not hand-draw them.
 - Use a grid for layout and alignment.
3. Submission instructions:
 - Scan or take photos of non-digital sketches; no paper submissions!
 - Pair each sketch with its wireframe.

Examples: Sketch + Wireframe (A quality)

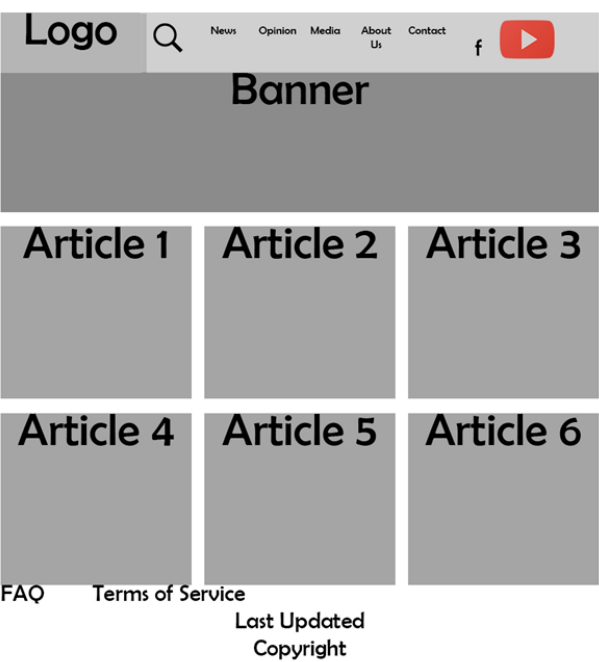
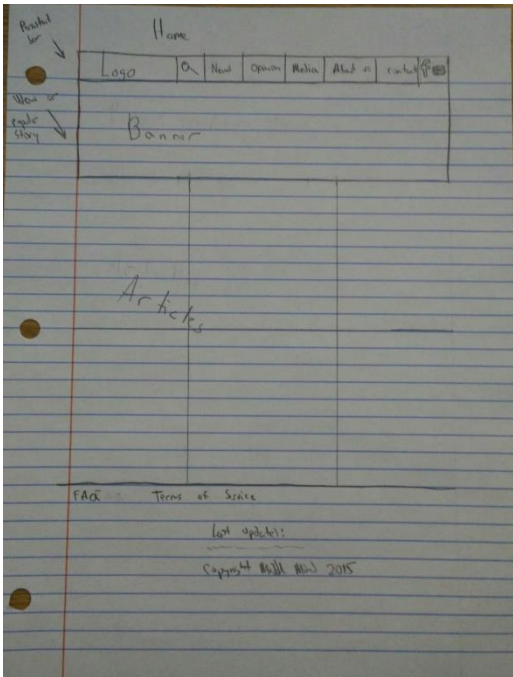


Store Page Sketch



Store Page Wireframe

Example: Sketch + Wireframe (C quality)



Week 15 Deliverables

The Week 15 deliverables are all due by 11:59 pm on the first class day of week 15.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

Storyboards (80)

Using the Storyboarding slideshow as a guide, hand draw 3 storyboards, one for each of your personas (primary, secondary, tertiary) performing a different (reasonably complex) critical task of your app/site/game.

- You can use pencil/paper or a drawing tablet to hand draw your storyboards.
 - But you can't use a graphics/storyboarding program.
- Present each storyboard on its own page.
 - Use the templates in myCourses/Week 13, or make a similar one yourself.
- Give each storyboard 6-8 frames.
- Include the problem, solution, and benefit for each storyboard.
 - The problem and benefit should be 1-2 frames each.
 - The solution should be 3+ frames.
- Annotate the frames (add explanatory text), as in the slideshow.
 - Keep the annotations short 'n sweet. (If one word/phrase suffices, do it.)
- No paper submissions! If necessary, scan or take a photo.

Examples (good and poor)

See Storyboarding slideshow.

Week 16 Deliverables

The Week 16 deliverables are all due by 11:59 pm on the first class day of week 16.

General Deliverable Requirements (10)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

10 UI Design Principles (25)

Drawing from the design principles covered in class – The Big Six Normanisms, Nielsen Usability Heuristics, and Rams/iOS/Android/Windows Design Principles – write a set of your team's top **10 UI Design Principles**, and present it as a checklist table, like the one below (which you should feel free to copy and paste).

Along with the principle names and descriptions, you need to write a sentence or two in the "How Project2_Name Exemplifies these Principles" column explaining how your Project 2 app/site/game exemplifies each principle. Be specific! If one of your principles is Less is More, don't write something like: ZoomZoom is simple and streamlined. Mention a couple of specific examples of HOW ZoomZoom exemplifies Less is More.

Team_Name's 10 UI Design Principles		
	Design principles	How Project2_Name exemplifies these principles
<input type="checkbox"/>	1. Name of Principle Brief description of principle ...	A sentence or two explaining how your Project 2 exemplifies this principle. Be as specific as possible!
<input type="checkbox"/>	2. Name of Principle Brief description of principle ...	A sentence or two explaining how your Project 2 exemplifies this principle. Be as specific as possible!
<input type="checkbox"/>
<input type="checkbox"/>	10. Name of Principle Brief description of principle ...	A sentence or two explaining how your Project 2 exemplifies this principle. Be as specific as possible!

Rough Mockups (30)

For each of your 4 wireframes, create 3 rough mockups (in a graphics program):

- One for a desktop-sized screen (in landscape mode).
- One for a tablet-sized screen in portrait or landscape mode.
- One for a phone-sized screen in portrait mode.

That's a total of 12 mockups = 4 wireframes x 3 mockups.

Make each of the 3 mockups for each wireframe different (responsive layout).

- Do not simply resize a mockup to fit a different display device.

Design your mockups to "average" physical desktop, tablet, and phone screen sizes.

- Ask Google for help.

Note: Use the slides at the end of the Usability slideshow as a guide to what's expected.

Usability Test Report (25)

1. Test your UI on 4 subjects. Include at least 4 questions in your tests; design them to get at information that can help you improve your UI form/function.
 - You don't have much to show test subjects at this point, but do your best.
2. Write 4 usability test reports, one for each test subject, like this:

Usability Test Report			
Test subject name:			
Test subject description:			
Usability test question	Subject response	Learned from response	How it applies to P2
1.
2.
3.
4.

3. When you're done with step 2, create one usability test conclusions report.
 - Summarize/generalize — don't just copy! — the "Learned from response" and "How it applies to P2" entries from your individual test reports. Look for subject response similarities, patterns, consensus.

Usability Test Conclusions Report		
Usability test question	Learned from response	How it applies to Project 2
1.
2.
3.
4.
Other notes, comments, conclusions (optional):		

Phase IV. Deliver

Finals Week Deliverables

There are two due dates for the deliverables this week:

- Presentation: Project 2 Booklet
 - 236-03 (4 pm class): Wednesday, 12/16, 10:15 am
 - 236-05 (2 pm class): Wednesday, 12/16, 12:30 pm
- Dropbox: Project 2 Booklet
 - Friday, 12/18, 11:59 pm

General Deliverable Requirements (5)

1. Fill out a work table for this week's deliverables.
2. Submit ONE file that contains all the week's deliverables.
3. Lay out and format your submissions to optimize usability for your client (me).
4. Write properly: spelling, punctuation, syntax, grammar.

Project 2 Booklet (80)

Use the Annotated Final Mockups Booklet and stepbystep Style Guide (both in myCourses/Content/Assignments) as models for creating a Project 2 Booklet.

- Imitate the models, *don't* clone them.
- *Design* your Project 2 Booklet, don't just slap it together.
 - Consistently and well-styled color scheme, typography, backgrounds, etc.
 - Make it beautiful! (It should compare favorably to the models.)

Project 2 Booklet spec (to be followed EXACTLY!):

- General:
 - 20-page PDF file
 - Pages 2-20 get a(n attractive) footer with project name and page number.
- Page 1: Title page
 - Use models for inspiration.
- Page 2: Project 2 overview
 - An overview of your Project 2 app/site/game.
 - Description (100-250 words): who (audience), what, why, how
 - 1-3 image(s) — UI money shot(s)!
- Page 3: Project 2 annotated screen flow diagram
 - Fine-tune the screen flow diagram you created for week 12

- You might need to condense your annotations to fit the diagram and annotations on one page (as required)

- Pages 4-7: 4 "style guide" pages (one page for each of these)
 - Colors (color scheme)
 - Fonts (fonts, sizes, styles)
 - Icons (icons and, optionally, logo)
 - Controls (controls: buttons, tabs, widgets, etc.)
- Pages 8-19: 12 final mockups (one per page)
 - Each mockup should be a pixel-perfect rendering of a rough mockup.
 - Arrange the mockup screens in a logical order.
 - Frame the screens in images of your target devices: desktop, tablet (portrait or landscape), and phone (portrait). Get the sizes (inches) right!
 - Annotate key controls and objects (2-5 per screen) like in the AFMB model.
 - Don't annotate the same element twice.
- Page 20: Team info
 - Brief description of team
 - Picture and thumbnail bio of each team member
 - Humor (and imagination) welcome!

Final Mockups Requirements

- Layout – good margins, alignment/grid, smart use of space, consistency
- Color scheme – attractive, right for context (of app/game), consistent
- Text/typography – legible, right for context, consistent, correct (spelling+)
- Navigation/gameplay/functionality/logic – efficient, unambiguous, easy to use

Litmus test: Show your final mockups to a UI-savvy friend and ask two questions:

- Can you *quickly and easily* tell from the mockups screens what the app/site/game does (its raison d'être), where each screen is positioned within the UI structure, and what you can (should) do on each screen?
- If you ran into this app in the real world, would it look/feel professional?

If the answer to either question points to a problem with your mockup, FIX IT! :-)

Peer Reviews (10)

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