Competition Milestones

Completion of all three milestones is required to receive credit for web.lab and to be considered in the competition.

Milestone 0: Team and 10 Ideas

Due Wednesday, January 8 @ 11:59pm
Submission: weblab.is/milestone0

1. Form a team of 1-3 members (you can compete individually!). Make sure your team is eligible according to the rules.
2. Register your team on the portal (portal.weblab.is).
3. Brainstorm 10 ideas for your web.lab project that fit the year's theme, and submit them to the submission form.

Milestone 1: Project Pitch

Teams sign up for a timeslot on Sat, Jan 11 or Sun, Jan 12.
Submission: weblab.is/milestone1

Choose an idea for your website, and flesh it out a bit before you start coding! You'll present your idea to a few staff members and, if available, representatives from sponsor companies. It's very casual and low-stakes: the staff's role isn't to evaluate your ideas, but to give you feedback and suggestions before you start coding, and answer any questions you have!

Your team will sign up for a 10-minute timeslot in the 32-044 in the basement of the Stata Center, or over zoom only if needed. You'll have 3 minutes to present your idea, then staff will give feedback.

To get credit for this milestone, your presentation should include the following:

- Introduce yourselves.
- Tell us how your idea fits the theme, and what problem it addresses.
- What are the key features of your website?
- Create at least 2 designs for your website using Figma or a design software of your choice (hand-drawn or google slides is okay, but they should convey in detail what your UI will look like).

If no members of your team can make it to the time slots we have listed, please create a private post on Piazza and we can help you schedule a make-up session.

Milestone 2: Minimum Viable Product (MVP)

Due Wednesday, Jan 22 @ 6pm
Submission: weblab.is/milestone2

For this milestone, we would like to see that you've made significant progress towards your final product. It doesn't need to be a finished product, but the core functionality of your site (your key feature(s)) should be working.

Milestone Requirements
You should have, at minimum:
- A login system.
- Dynamic content. The site should be able to display different content on the same page under different situations.
- A database (that is actually being used to power your website).
- Your most important or compelling feature implemented.

And answer the following questions:
1. What technologies are you using for the backend? Include any frameworks if relevant.
2. What technologies are you using for the frontend? Include Javascript frameworks such as React, styling or templating libraries or frameworks, etc.
3. What is the main browser you are targeting? (Must be either Chrome or Firefox)
4. What additional features do you wish to implement? How far along on those features are you?
5. What technical risks or unknowns are you still facing?

Milestone 3: Final Submission

Due Wednesday, Jan 29 @ NOON for competing teams, Thursday Jan 30 @ 11:59pm for non-competing (credit only) teams
Submission: weblab.is/final
Please submit your team's website to the form above. This form will close at exactly noon, and submissions will not be accepted after the form has closed.

If your site is broken in any capacity (link doesn't work, login doesn't work, site crashes, etc), your team will not be eligible to advance to the semifinalist round. For this reason, we recommend that you do not change the site while we are judging, since if it breaks we will not allow your team to move on as a semifinalist.

Judging Process

After the final submission form closes, the staff will identify semifinalists. We expect to have around 12-18 semifinalists (for the Main Division) depending on the quality of the submissions. Results will be announced by 8:00 PM of the same day.

Semifinalists will have a 15 minute time slot on Thursday 1/30/2025 from approximately 8:30 AM to 4:00 PM to give a 5-minute presentation to the judges and answer questions about their site. We recommend that your presentation explain:

1. What problem does your site aim to solve? Why is there a need for this problem to be solved?
2. How does your site fit the theme?
3. Why does your site solve this problem well?

Your presentation may be structured however you like, but must include a live demo of your features. More information about the presentation will be included in the semifinalist announcement.

From the pool of semifinalists, the sponsor judges will determine the top teams. The results will be announced at the Award Ceremony. Semifinalists will give a short presentation at the Award Ceremony and must attend a mandatory Winner's Luncheon with sponsor companies from 12 PM - 3 PM on Friday.

PLEASE NOTE: Your team is allowed to make changes to your site after the final submission deadline. However, if you site is broken when we look at it, you will not have a second chance, so make updates at your own risk.

Awards

Prize Amounts:
- 1st Place: $3,000
- 2nd Place: $2,250
- 3rd Place: $1,750
- 4th Place: $1,500
- Honorable Mention: $750

Special Prizes

In addition, teams may be awarded special prizes at the discretion of the staff. They may be awarded to one or more teams, or to no team if the staff feels that no team is deserving of the prize. We may also add more prizes to this list!

You can indicate whether you would like to be considered for any of these special prizes during the final submission.

Most Unique Concept

Prize: $500

Awarded to the team that, as determined by the staff, created a site with the most unique, interesting, and compelling concept. This site would solve an interesting problem that doesn't have an established solution or address one of the competition themes in a creative way.

Most Responsive UI Design

Prize: $500

Awarded to the team that created a site with the best responsive design across screen and device sizes.
Note: To win this prize, you may NOT do any sort of device or user-agent detection and send different stylesheets in the response or redirect to a "mobile version" of the site. The staff may test your site on all reasonable resolutions, resize the browser window, and view your site on any common smartphone or tablet.

Most Innovative UI Feature

Prize: $500

Awarded to the team that, as determined by the staff, implemented the most innovative, well-designed, and interesting UI feature. Think about the UI lecture - how will you surprise users (in a good way) and use your UI feature to draw users to your site? Take risks and be bold!

Most Innovative Backend Feature

Prize: 500

Awarded to the team that, as determined by the staff, implemented the most impressive feature or algorithm on the backend. This can be a cool use of various technologies, design or implementation of a nontrivial algorithm, or something else on the backend. Surprise us!

Webby Award

Prize: $250

Awarded to the team (among all submissions) that receives the most Facebook likes. Votes will open when semifinalists are announced and will close during the awards ceremony.

Competition Rules

1. You may not begin development on your site until Monday, January 6, 2025 at 11 AM. Failure to do so will result in disqualification.

2. Your site must meet all the basic requirements:

   Dynamically-generated, database-backed pages. Your site must contain pages that are produced dynamically by some server-side application (e.g. Node.js, Ruby on Rails, PHP or Python scripts) using the results of queries to some database or other data service. You should use MongoDB -- what we teach in class -- or if you would like to use something else, please confirm with staff first.

   Personalized experience based on user accounts. Your site must have a sign-in feature. The UI of the website should reflect whether a user is logged in and display some non-trivial user-specific content. You are not required to implement account management (e.g. password recovery). Note: If your site uses MIT certificates, you must implement an alternative form of authentication for our non-MIT judges.

   Original design and implementation. Your site's high-level design and the implementation of key features must be original. You may use frameworks like Express.js or Ruby on Rails and frontend frameworks like Bootstrap. You may use open-source components as long as the top-level design is original and your site's main functionality isn't just a wrapper around the component. You may not customize a CMS system such as Wordpress for your site.

3. Your site must help users access a nontrivial amount of content.

4. Your site must contain some nontrivial frontend feature. At a high level, this means that your site cannot simply consist of pages returned by the server, but rather must support some sort of dynamic user interaction.

5. Teams must use version control and host source code on Github. The web.lab portal creates a repository for every team.

6. Your site must work in either Chrome or Firefox. Teams will be able to specify browser of choice.

7. Teams must comply with US laws and MIT academic policy and integrity policies.

Plagiarism. We will ask you to name all your team members and list all the 3rd party data, code, and media that you have used. Please keep careful track of your sources, just like you would for any other course, and include a citation of ALL sources used. This includes, but is not limited to, the use of: 3rd party libraries, code distributed by the staff, code snippets shared on Piazza, and code snippets found on StackOverflow or other forums. For all components of your application that are not your own, include a citation in the README of your repository. Additionally, for code snippets pasted (with or without modification) into your source code, include a brief citation or link to the origin of the code as a comment in the code itself. Plagiarism may result in disqualification, a failing grade, and referral to MIT's Committee of Discipline.

Third-party code/data/media. Any code or content that is not your own must be public available at no cost through legal means. This includes content such as images, fonts, and stylesheets. All such code and content must be cited in your repository's README (see Plagiarism section above). You may not use any code that you wrote before January 6, 2025, unless it was publicly released.

Straight-forward evil. Do not spam or host malware. Do not encourage or assist users in breaking non-disclosure agreements or infringing copyright. Your site must not provide a haven for discussion or sharing of topics violating relevant local, state, and Federal laws, including copyright law. Do not abuse MIT's infrastructure or databases. Do not interfere with other contestants' development process.

8. Past competitors who were in a team who have won more than $2,000 in their 6.9620 (formerly 6.148) career are not eligible to compete. Special prizes do not count towards this restriction. If in doubt, please contact the staff.

Judging Criteria

When judging contest submissions, we will focus on four main areas:

Functionality

Functionality concerns the ability of user to visit your site and perform the actions that are advertised.

Errors: Does your site load without errors? Are there portions of the site that are not implemented or don't work as intended? Do actions on the site cause uncaught errors or exceptions?

Features: How many features are implemented? Are they useful, nontrivial, and well-polished? Note that this is not a race to implement as many features as possible -- judges will be more impressed with a reasonable number of polished, well-executed features than a large number of poorly-implemented features. A large, incohesive feature set also reflects poorly on usability and concept execution (see below).

Response time: Does your site take an egregiously long time to display results? Note that we are not going to benchmark your site or judge your algorithms, but a site that takes five minutes to load query results is unreasonable.

Security: Can the site be broken with the simplest of attacks? Note that we will not mount complex attacks against your site. The basic mitigations discussed in lecture will suffice.

Usability

Usability concerns the ease-of-use and learnability of the site. Is it obvious to the user what can be done, and does your system behave as expected?

Ease of learning: Can a user encountering this web site for the first time easily discover what the web site does and how to make it work?

Visibility: Is key information readily visible on the site? Are features clearly indicated?

Efficiency: Is it easy for the user to access all features of the site? Are there mechanisms for experienced users to save time? Efficiency does not refer to response time, but to how easily the user can perform common tasks on the site. For example, a feature that requires many mouse clicks across many menus to access has poorer efficiency than a feature that requires few clicks.

Safety and recovery: Is it easy for a user to make a mistake? Is it easy for a user to recover from a mistake, via undo, edits, or other mechanisms?

Aesthetics

Aesthetics concerns the overall look-and-feel of the site and the impression it makes on the user.

Layout: Is the overall layout of your site simple or cluttered? Are the user's eyes immediately drawn to the most relevant parts of the page?

Consistency: Is the visual design of your site consistent across its components? Is there a familiar, comfortable set of colors, shapes, and fonts used?

Attention to graphic design: Have you considered the basics of graphic design, including: color, balance and whitespace, and typography?

Aesthetic innovation: Does your site do something particularly fresh, bold, or innovative in its visual design? This could be in the execution of a single feature or visualization or in taking a bold approach to the overall design of your site.

Concept Execution

Concept execution concerns whether you have identified a real, existing problem and presented a compelling solution.

Problem statement: Is the problem clear and well-defined? Is it a real, existing problem?

Conceptual clarity: Does your solution employ a number of clearly-defined concepts? Concepts are ideas and notions that manifest themselves clearly in the implementation of your solution, or a common thread that runs through your feature set.

Feature set: Does your application consist of a coherent, well-thought-out set of features? Do the features make sense when considered as part of a larger whole? Do the features address the problem to be solved?

Originality: Does your application solve the problem in a way that hasn't been done before? Note that you may do well in this category even with a well-established problem, as long as your solution is novel.