March 2024

MIDS W210 Capstone:
Final Deliverables Guidance

I. Summary of requirements

Three required deliverables:

A. Final presentation
B. Final project website
C. Project Summary posted to the iSchool website.

A. Final presentation (delivered virtually during Week 14 live session)

- We recommend that each team member has a speaking role during the final presentation. If the team decides that only a subset of team members give the final presentation during the final class, please make sure that teammates who do not present in the final presentation have already presented in at least one of the two previous presentations.
- Assume your audience has general knowledge of data science but have minimal background and details regarding your project and the problem you are solving.
- The presentation should demonstrate (1) effective communication, (2) strong understanding and implementation of technical knowledge, and (3) strategic and critical thinking. *Read detailed guidance on page 2 and 3.*
- At the end of the final class, via email, please share with instructors final presentation slides, web deliverable link, and any supplemental materials within a day of the live session.

B. Final project website and MVP. The final project website provides an overview of the project (aka a landing page). The final project website could have your project's interactive demo of your project's MVP as an embedded component, but the MVP can also be a separate application depending on final deployment choices. In some projects, students have a standalone application that is not embedded or integrated on the final project website but on a separate demo site / product beta site. The project website can be built with and on any website hosting service and templates (e.g., https://ayroui.com/, Wix, Github page, Google page, I School Wordpress, SquareSpace, etc). We will not be auditing your HTML or CSS codes. We highly recommend that students explore and review examples at the end of this document (pages 6-9).

C. Project summary uploaded to the Berkeley iSchool website . See instructions here (require Cal intranet login).

II. Overall Final Presentation Guidance

Given you have ~13-14 minutes for the final presentation (followed by ~2-3 minutes for Q&A), focus on the key elements that you believe are the most differentiating and important for your project. Ultimately, you want your audience to understand why your project matters, how you have technically solved the problem in a holistic and end-to-end perspective, and the value of your project to your target users. After listening to your presentation, the audience should have a clear understanding from your content with respect to the problem, the impact, use case, solution for the target user from a MVP perspective, models and technical approach (how was this built), under what scenario the model worked and under what scenario it doesn't work, target user feedback/testimonial and future roadmap specific to your project.

Note: you must provide attribution (e.g. footnotes) if you used third-party content/images in your slides. Similarly, you should acknowledge the help of domain experts and/or researchers you reached out to. If you used generative AI to generate any text or slide, you must footnote this too.

Areas to cover:

A. **Introduction of the team (**briefly**)**
B. **Problem Space, problem specifically addressed by your Capstone Project, key takeaway from domain experts, identification of target User, impact, mission**
C. **Demo of your solution MVP / final deliverable to your target user**: Demo your MVP or deliverable as if you are speaking to the target user. Discuss capabilities and features of the product as well as how these capabilities and features solve the pain points of your users. How does your MVP answer the key questions your target users have? What did target users say after seeing the demo (aka testimonial / user feedback)
D. **Highlights of technical approach and evaluation of the model**
    a. Summarize the data set used (nature of the data, volume, variety, etc). Present sufficient key takeaways from exploratory data analysis and data pipeline to set up the modeling discussion.
    b. Summarize the modeling approach end to end (architecture, model options, feature engineering, model engineering, any innovation or techniques adopted to build a ML system for your problem)
        i. What models has the team explored and what model did you end up with and why? Does the approach build on related work to solve the problem?
        ii. What are the features, which features are the most important?
        iii. Where does the model work well and where doesn't the model work as well? In other words, what is the main use case that works and what are the edge cases that don't work. In general, examples should be used where appropriate to illustrate how a technical approach works.
    c. Technical model Evaluation: Describe the approach and actions you took to evaluate the performance of your model(s), as against state of art / alternative

implementation for the same or similar problems, as against user expectations. Define a clear baseline. Include ablation study as necessary.

d. Tie back to how the model output and insights are useful and interpretable to the target user? How can target users use model outputs to address the problem?
e. Detailed key technical takeaways and overall summary: top 3 technical challenges you have overcome. Be clear about where the innovation is over previous work.
f. Top 2-3 roadmap items if you had more time. How can your modeling approach and way of solving the problem generalizable?

E. **Wrap-up:** Wrap up with a clean slide on a sentence that states the project mission
F. **Acknowledgements and additional resources** as an appendix slide in the deck. No need to show it (optional)

III. Deliverable Evaluation and Rubric

a) Overall project evaluation criteria (for both presentation and website)

i) Potential impact / meeting a strong market need: Project is likely to provide a highly usable tool or insight to users. Effectively identifies and addresses a specific problem space or need.
ii) Project website and MVP clarity: Project offers a working minimal viable product with a completed set of features or results, given the defined problem and scope.
iii) Model Evaluation: Team demonstrates a clear set of steps taken to validate and evaluate modeling approach, techniques, and results from the project. Clear articulation of decision making process, trade-offs, and key learnings.
iv) Presentation: Team delivers a final project presentation powerpoint and MVP demo *effectively*, *clearly* and *concisely* within allotted time slots. Presentation structure and organization of contents allow the audience to understand sequence, process of project work, outcomes, and impact.

b) Presentation evaluation and rubric (20% of the grade): We are looking for strong and clear communication on both technical (approach, implementation, evaluation, key learnings) and non-technical elements (problem, impact, target user, product).

i) Rubric
(1) 40% on whether the presentation meets overall project evaluation criteria above.
(2) 60% on whether the presentation meets presentation structure and delivery criteria below.
ii) Presentation structure:
(1) Is your presentation covering Section II requirements from the above?

(2) Are you clear in your communication regarding the technical elements? Are you able to effectively explain the reasoning behind the technical work and learnings from the technical work?
(3) Presentation delivery:
    (a) Is each presenter a clear, confident, energetic presenter? Did their presentation delivery seem natural (as opposed to presenters reading notes verbatim)?
    (b) Is the flow of your presentation and transition between presenters smooth?
    (c) Are you "driving key points home" from the beginning to the end to connect all elements of your presentation together?
    (d) Are you striking the right balance between business and technical components during the presentation while enabling everyone to appreciate and remember the key takeaways?
    (e) Are you inspiring the audience and bringing them along this journey so they have both a solid grasp of the MVP as it relates to the core problem and a view of the long term potential of the project?
    (f) Is the team clear in their answers to questions from the audience?

c) **Website evaluation and rubric (20% of overall grade)**:
    i) 40% - materials for presentation meet expectations based on Overall Project Evaluation criteria above
    ii) 60% - timely delivery of both project website and iSchool summary. The website demonstrated best efforts to make web deliverable mission-driven, clear (in terms of communication), clean, functional and well organized, and as a showcase for your cumulative work. Ultimately, the web deliverable demonstrates strong tactical and strategic thinking and implementation to lead web site visitors and users to understand, appreciate, and engage with your project and call-to-action.

FAQ

Can I use previous slides for my final presentation slides?
Yes, you can. You should take into account previous feedback given to you by your instructors and peers regarding slide contents, ordering of slides, clarity, and other feedback from previous presentations. Please leverage best practices in storytelling and communication as discussed in asynch and in class.

Do we use slides or website or MVP demo for the final presentation?
The most effective presentations use a combination of slides, demo, and website to provide a full set of information and achieve clarity. Some information is more appropriate for slides to convey. Project website is a place to educate the general public about the innovation and impact of the project and for the general public and your intended audience to find general information about the project. A (live) demo gives your audience a tangible understanding of whether the MVP works and an immersive experience of the utility and value that your MVP can and will provide to intended target end users. Record the demo for plan B if a live demo doesn't work out.

How should we build the website?
It is not necessary to spend a significant amount of time designing the website. A simple website utilizing existing web design templates from the Github page or any free resource is fine. Usually, the website includes: problem statement, general overview of the product and value proposition, link to or request for additional technical details (github link, Jypyter notebook, etc), link to demo (if it is on another site), and team and advisors. Sometimes, students have included a call to action on the website (e.g., "sign up for the newsletter," "contact us," "complete our survey," "attend our webinar").

What is the dry run in week 13?
The dry run in week 13 is an opportunity for each team to have dedicated project time and to do a trial run of the presentation with the instructors. Instructors will provide feedback and/or ask questions so that if necessary, students can make adjustments during the last week of Capstone and before the final presentation in class. Dry run is not graded.

How long does each team have for the final presentation?
~13 -14 minutes of presentation time, ~2-3 minutes of Q&A. Each team has a total of 15 minutes.

March 2024

Website examples from previous Capstone projects

Spring 2024

Summer 2023

Spring 2023

Fall 2022

Ocean Watch:
Website: https://oceanwatch.live/
Ischool Website: https://www.ischool.berkeley.edu/projects/2024/oceanwatch

Tailings Identification
Website: https://ginnyp.github.io/tailings/

Sidewalkee:
Website:https://sites.google.com/berkeley.edu/sidewaukee
Berkeley landing page:
https://www.ischool.berkeley.edu/projects/2020/sidewaukee-making-our-city-accessible

Parasite ID
Website: https://parasite.id/
https://www.ischool.berkeley.edu/projects/2018/parasiteid

Content Ad Blocker
Website: https://samuelhkahn.github.io/capstone_page/

Jonas:
Website: https://jonasassessment.wixsite.com/jonas
Berkeley landing page:
https://www.ischool.berkeley.edu/projects/2020/jonas-vaccine-concerns-assessment-tool

Weedeater:
Website: https://zmerrittz.wixsite.com/weedeater
Github: https://github.com/zach-merritt/weedeater