











Unit 4 / Lesson 3 / Assignment 1

Plan and Architect Your Capstone Project

© Estimated Time: 4-5 hours

Whenever you're starting a new programming project, it's critical to have a good sense of what you're building, for whom, and why before you write a single line of code. Ideally, you should always set out from a clear purpose statement for your application, then build a minimum product that will achieve that purpose, get feedback from users, refactor based on feedback, and repeat the feedback/refactor cycle as needed.



In this first assignment for your capstone project, you'll spend some time thinking about the purpose of your app and devising a feature set to achieve this purpose. You'll share this information with your mentor, who will give you feedback. The purpose you define and features you lay out in this assignment will determine what you ultimately code up in V1 of your MVP.

Steps

Define the Purpose of Your App: Come up with a clear one to two
sentence statement of what the app allows users to do or the problem it
solves. This statement should guide all the decisions you make when it
comes to defining features and sketching out your UI.

- 2. **Determine the Feature Set You'll Build**: Come up with the minimum set of features you think your app will need to achieve its purpose. Work with your mentor to define the scope of your product, and what constitutes a reasonable feature set for your capstone project. If your product idea is complex and large, it may not be reasonable to tackle it all in this course, but it should be possible to complete a significant chunk.
- 3. **Define and Sketch Your Application Views**: For each view (for instance, home page, log in, etc.) of your application, sketch a wireframe of what the user will see in the browser when they visit the app. You can use a pen and paper for this step or a wireframing tool like Balsamiq or a comparable tool. Even if you're a seasoned front end developer, we encourage you to keep your UI designs simple for the capstone project, as your time should mainly be spent implementing the server side of your application, not complex client side code.
- 4. **Domain Modeling**: Based on your app's purpose, the feature set you've defined, and the views you want to serve end users, you'll need to define your domain models. The point here is *not* to actually write SQLAlchemy models (you'll do that in the next assignment). Rather, you should think about the properties and methods your models will have, and how they relate to each other, leaving aside the particulars of implementing these models in SQLAlchemy's ORM, for now.

Deliverables

For this assignment, we'd like you to share a single document with your mentor that provides describes the *purpose* of your app, your *MVP feature set*, embedded images of your view sketches, notes on your domain models.

Be ready to discuss this document at your next mentor session. Together, you and your mentor will review this document and decide on the feature set you'll build for your capstone project in the next assignment.

