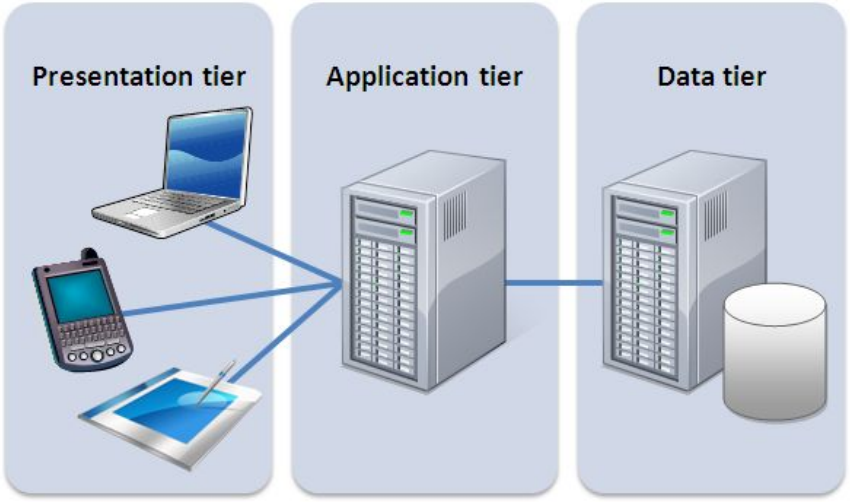
User story:
As a developer, I want to learn how to create an effective architectural design in order to effectively run our website.
This will include deciding where we will host different parts of our system (database/backend/front end), whether we want to containerize the different parts of our system, and how to effectively use different cloud platforms such as AWS and/or GCP.

Research results:
Our decision on what kind of system architecture we want to use was based on a variety of factors. Firstly, our system design consisted of a 3 layer architecture, where the database communicates with the backend, and the backend communicates with the frontend. Therefore, we needed an architecture that would provide reliable connection between these layers. Secondly, we wanted to be able to quickly develop and test. This is especially important for testing APIs and inte-layer communications in the first sprint, since after this sprint we would have established standards and fixed most bugs in communication.



3 layer architecture diagram, https://managementmania.com/en/three-tier-architecture

We decided that we would host the MySQL database and Flask backend on Google Cloud Platform (GCP) servers. There are several reasons for this decision: firstly, students are given $300 in free credits to use to host servers. Secondly, (and more importantly), GCP servers are extremely easy to manage due to a console with intuitive design. Furthermore, hosting the database and backend would provide static IP addresses to send requests to, which is extremely important for stability. Therefore, the database and backend are hosted on a Linux VM on GCP servers.

We decided not to host the front-end because it would be undergoing constant changes, and having to update the frontend on a VM would be cumbersome. Instead, the front end is run locally on our laptops for now, but the IP addresses to which it makes API calls to is static, allowing the frontend to be portable but stable.