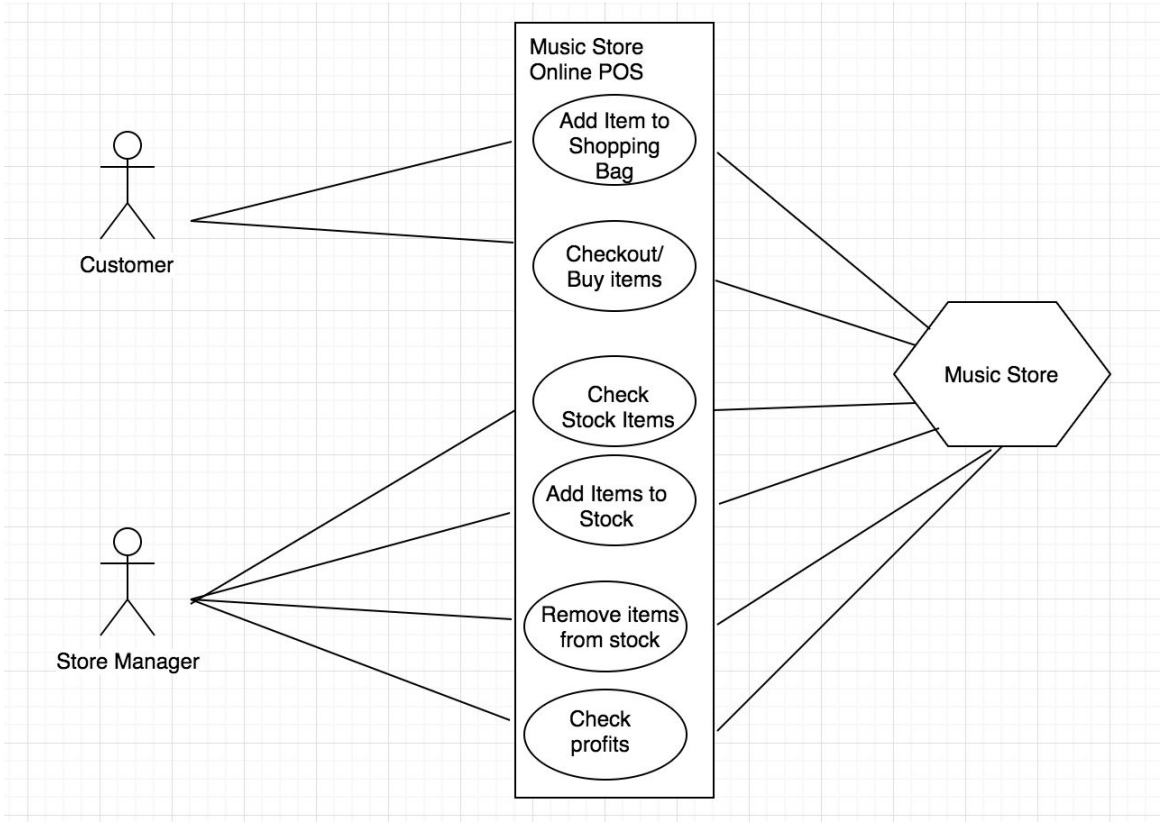
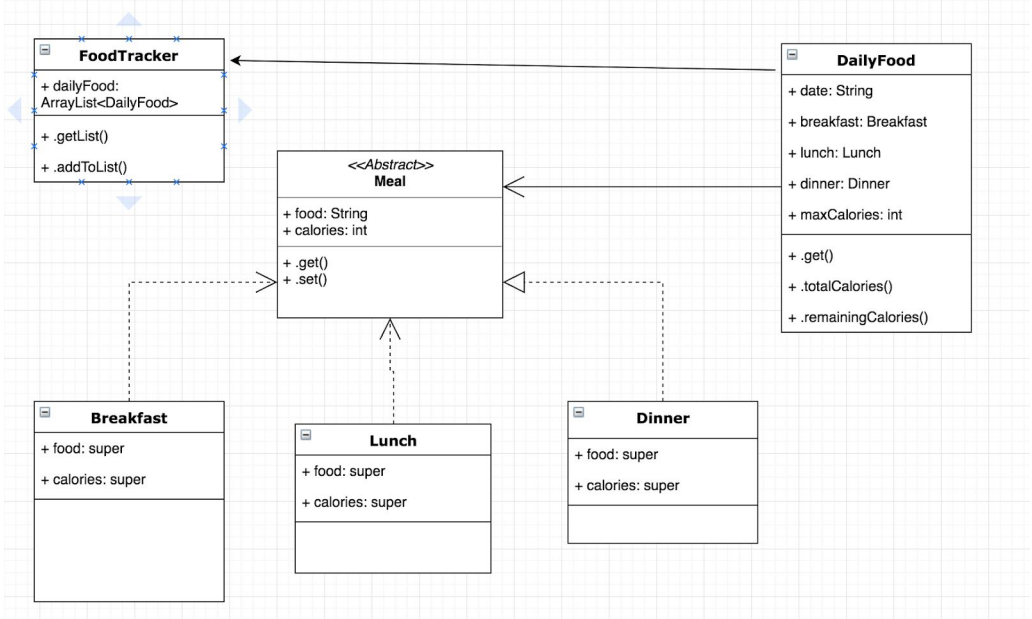
A&D 1

-a use case diagram



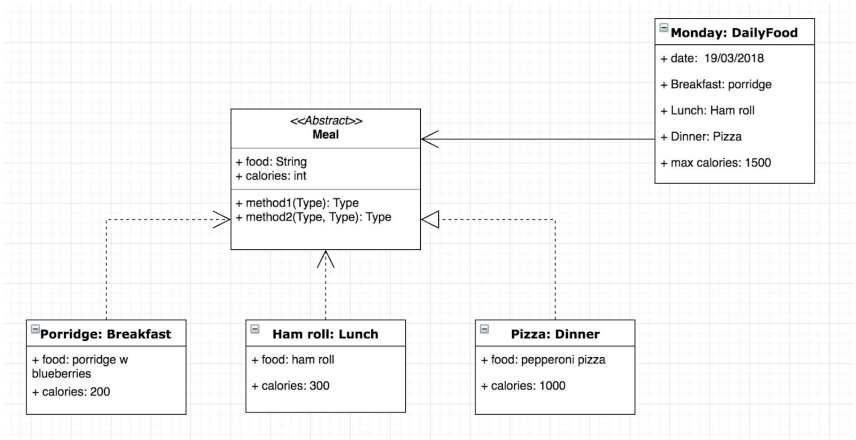
A&D 2

-a class diagram



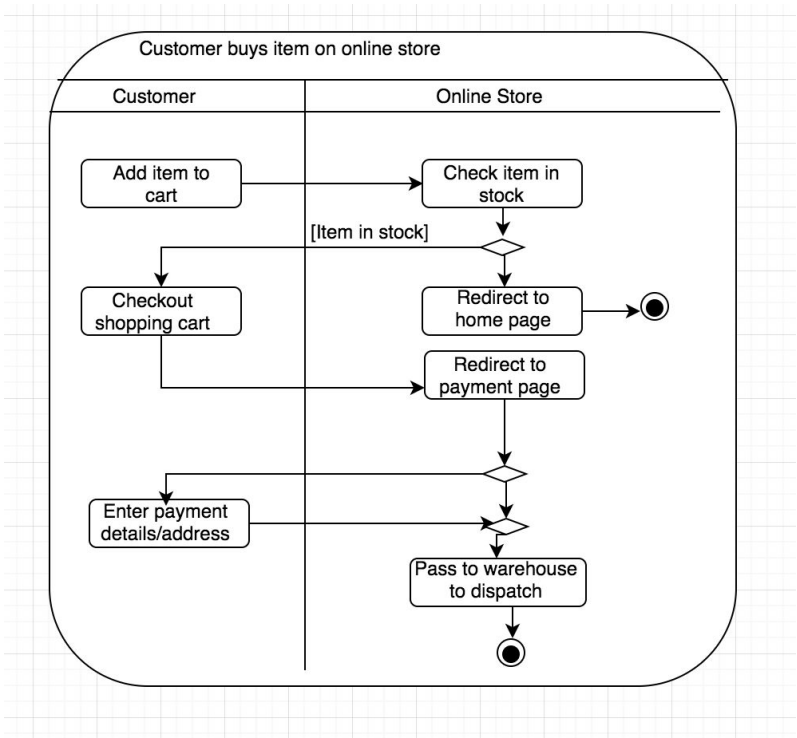
A&D. 3

-an object diagram

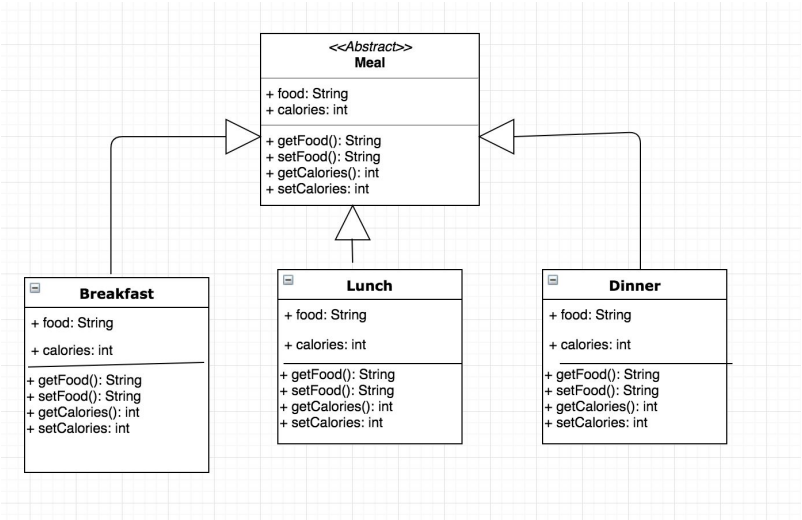


A&D 4

-an activity diagram



A&D.5
-an inheritance diagram



A&D.6
-implementation constraints plan

Topic	**Possible effect of constraint on product**	**Solution**
Hardware and software platforms	Images and text don't resize on mobile devices, this will lose certain customers	Use css flex-box to make the content dynamic and test extensively to make sure it is responsive
Performance requirements	We want the app to run in all browsers. If customers have an older browser version certain features might not be available to them and they will not engage with the product.	When beginning the project check if the language being used is compatible with the majority of browsers and optimise code to get highest possible compatibility.
Persistent storage and transactions	If data is being stored in a remote database it might take a while for the data to load on certain browsers and this will lead customers to leave the site if it loads too slow.	Cache data locally for a short amount of time when a user loads the app. The app will look to the cached data if the user is actively using the site and it won't take a long time to load the whole database from a remote location.

Usability	Images not readable with screen reader for those with sight problems, this will lose all clients with these sight problems	Add alt tags to all images and make sure the site is accessible to screen readers in all other areas
Budgets	Limited budget so can't hire a UX designer, project might lack key decisions about user experience	Developer has to take on the role of a UX designer and think about user needs and design before beginning project
Time	Client wants product to be ready by a certain deadline, product might not be finished with all desired features	Have to plan the project well and work to a strict timeline. Be agile in development and work in sprints to have a better idea if the project is on schedule.