Southern New Hampshire University

CS 255 System Design Document Template

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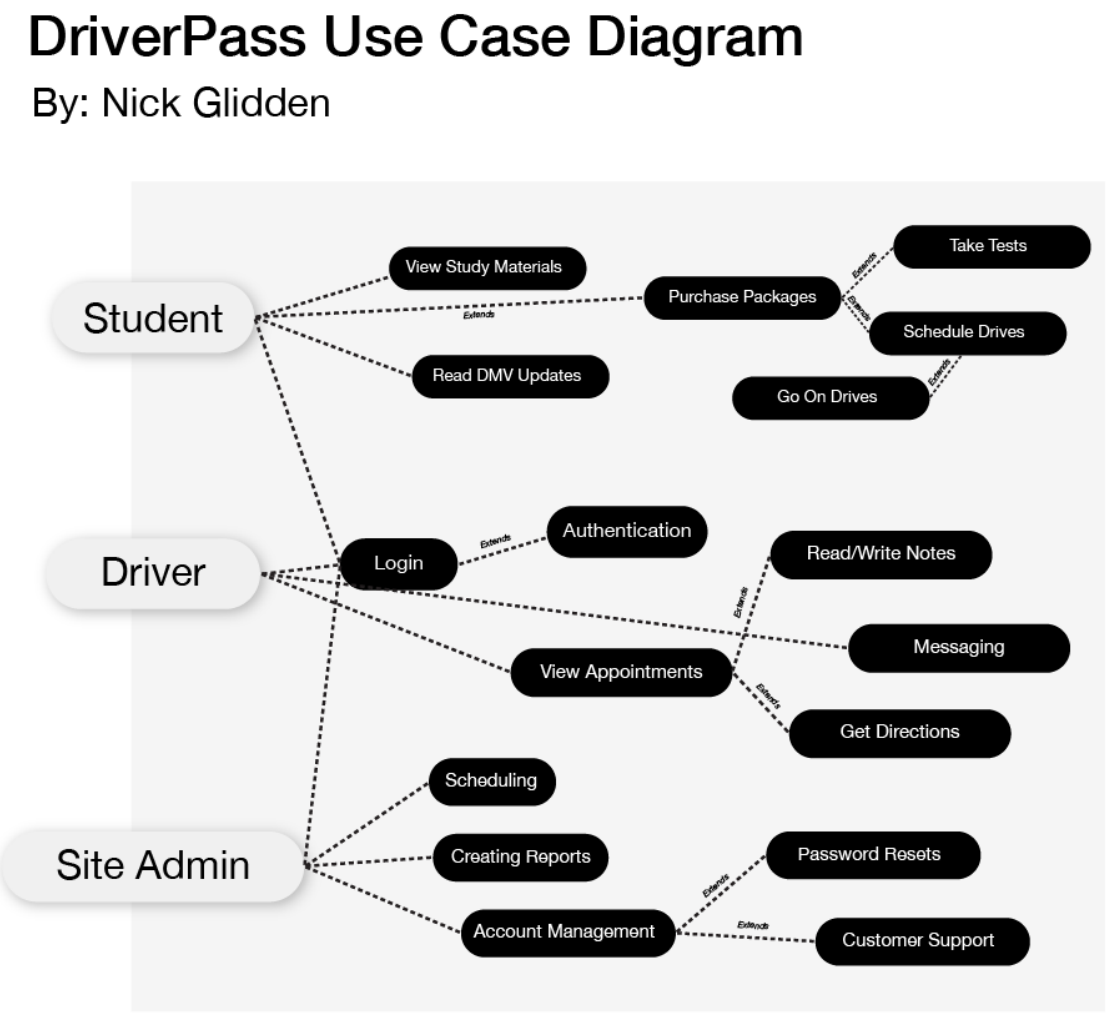
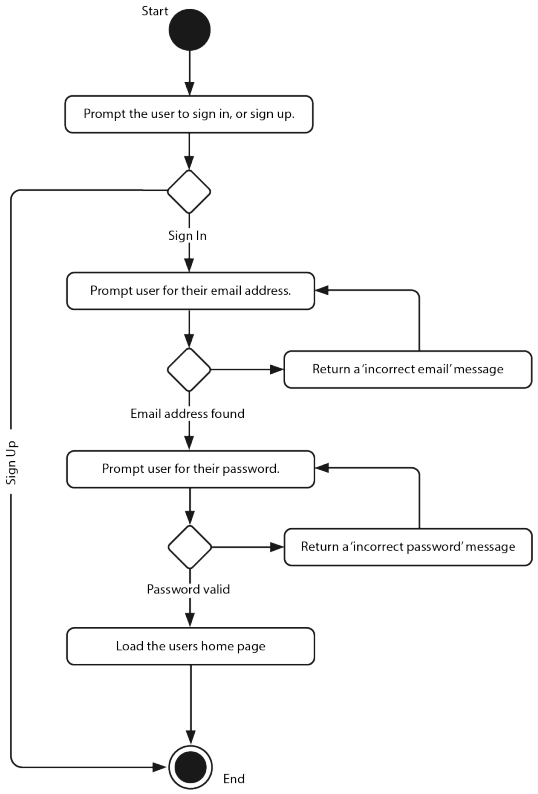
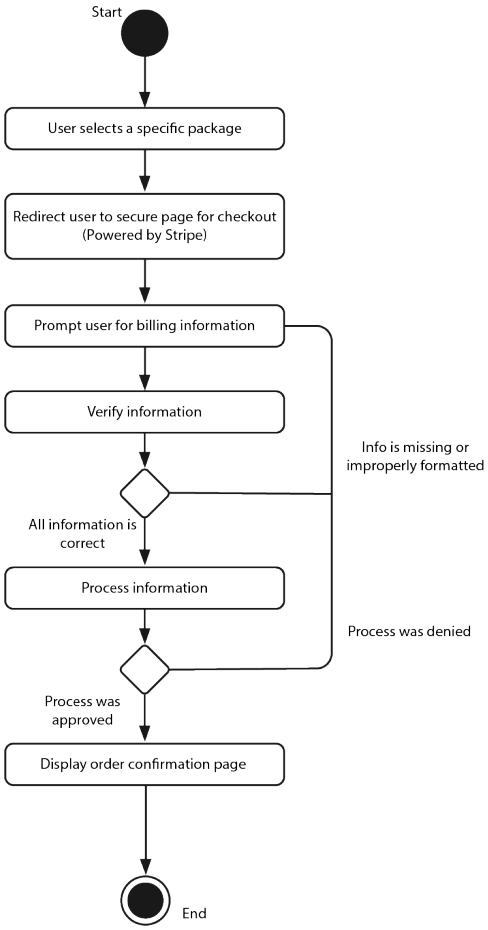


UML Activity Diagrams

First Use Case (*left*): A user is logging into the DriverPass system via a web-based environment.

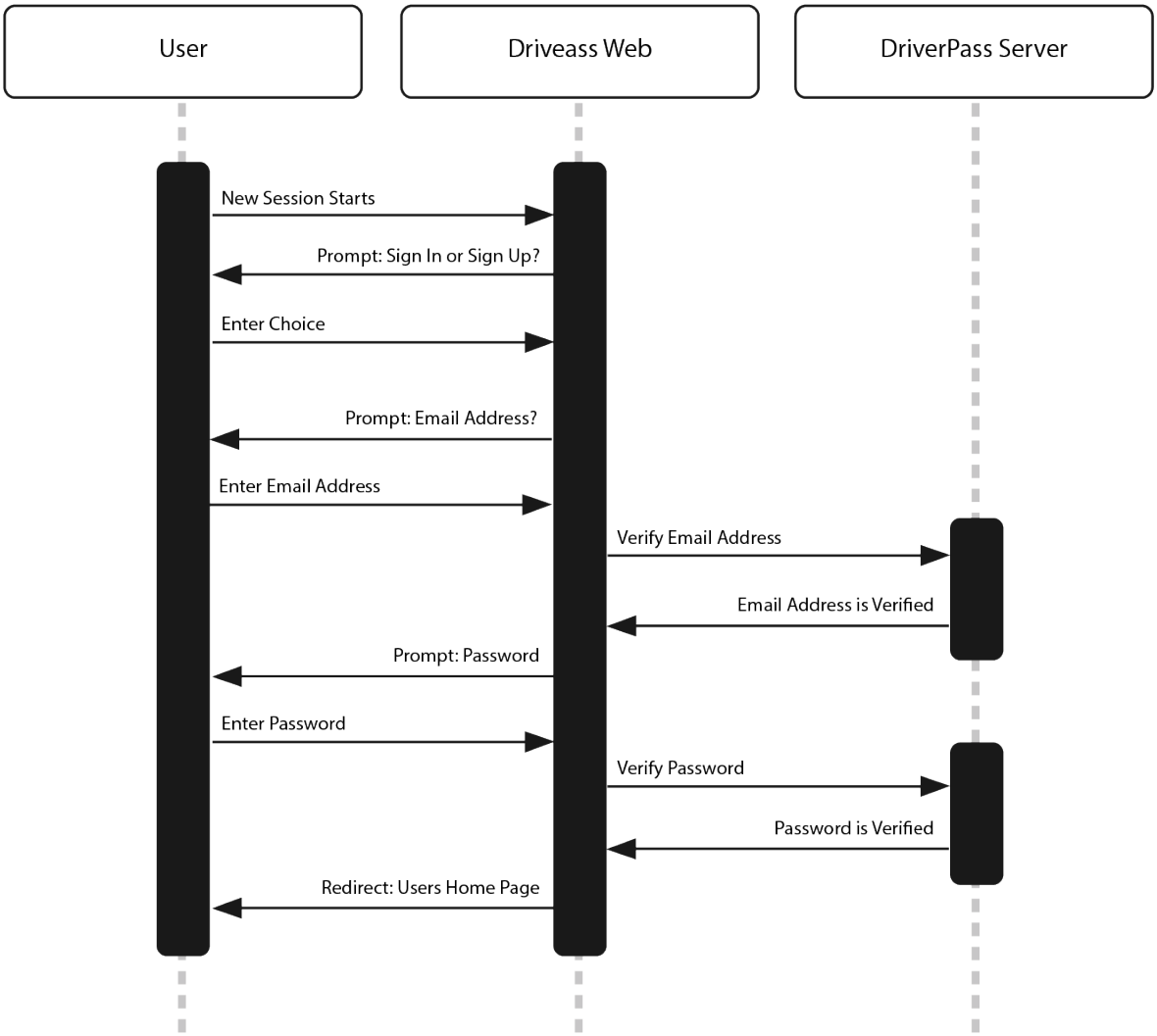
Second Use Case (*right*): A user is purchasing a package (product) via a web based environment.



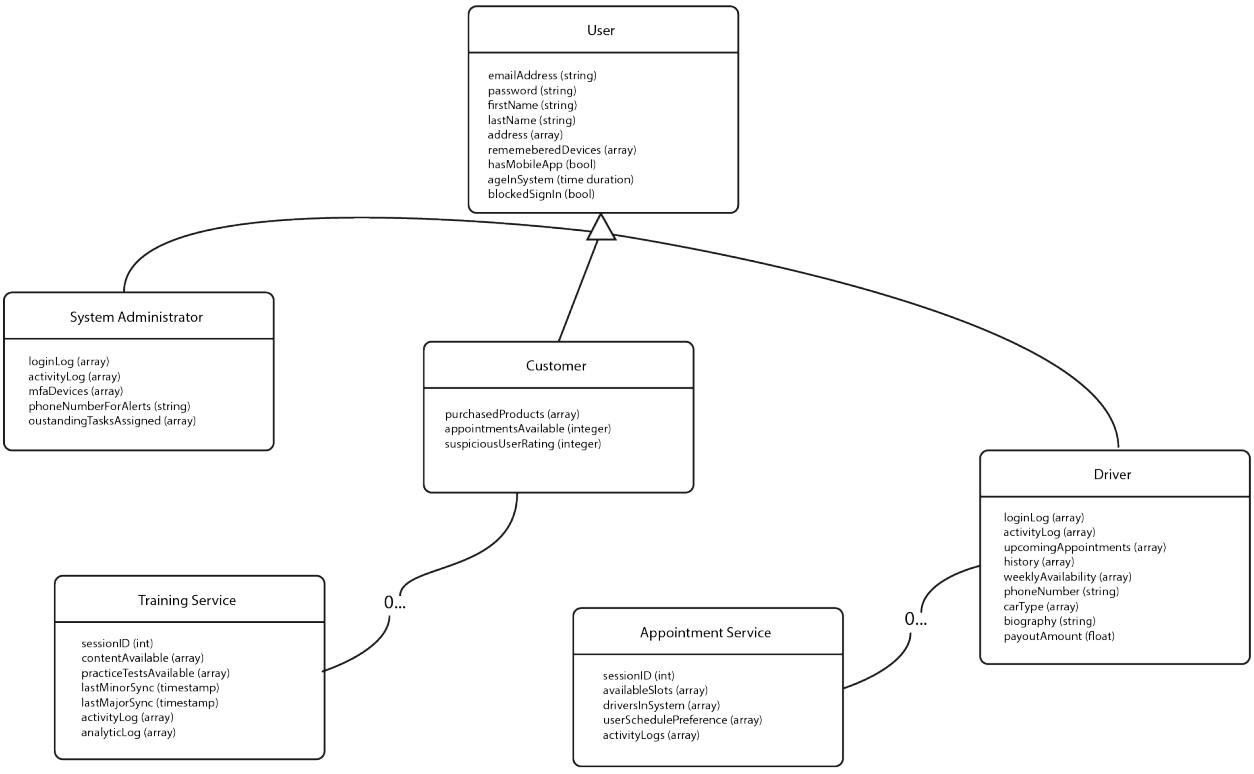


UML Sequence Diagram

I chose to model my first use case from above. A user logging in via a web-based environment.



UML Class Diagram



Technical Requirements

Personally, the largest piece of infrastructure I would say is a requirement, is a cluster of servers that can work in parallel. I know this can be accomplished easily using a cloud provider, but can become very tricky and expensive if an on-premise system is being used. I would highly recommend a cloud provider for this reason. Storage will grow, but available memory needed will be soar with large numbers of users, so I would suggest a CPU that has a minimum of 16GB of available memory.

In terms of tools, I would highly recommend using three external tools, two of which are recommendations, but one is an absolute requirement. The two recommendations are using an external analytic tracker, and an external server error reporter. Both of these tools can be developed in house, but there are expensive, hard to manage, and never really gets the job done as well as the established teams who create these well known products. The absolute requirement however, is an external payment processor. Almost all corporations do this, and it certainly takes a lot of work off our plate. We don't need to worry about data transfer, data storage, etc. as it relates to billing. We are securely, easily, and reliably capturing user funds. This happens on a domain that is not ours, and consequently saves money on computing / sever costs, as well as freeing up that server load for other things our system needs.