**Project Two: System Design Document**

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CS – 255: System Analysis and Design

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August 13, 2023

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This template lays out all the different sections that you need to complete for Project Two. Each section has guidance to prompt your thinking. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead the goal is to complete each section based on what your client’s needs are. Remove this note when you are finished, and replace all bracketed text with the relevant information.

## UML Diagrams

### UML Use Case Diagram

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### UML Activity Diagrams 1



### UML Activity Diagrams 2

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### UML Sequence Diagram

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### UML Class Diagram

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## Technical Requirements

*[Based on the diagrams you have created, describe the technical requirements of your system. These requirements should address the required hardware, software, tools, and infrastructure necessary for your system design.]*

* Considering the nonfunctional and functional requirements, when building and accessing the system the only hardware necessary would be a computer or laptop with online capabilities. Since the system will be built on a cloud-based platform no additional hardware should be needed to maintain the system. Some hardware that could be added for support would be, GPS tracking devices for the cars. If DriverPass will be buying and storing their vehicles on-site, then this type of hardware might be useful for tracking where the cars are when picking up, traveling with, and dropping off students. Considering that driver instructors will be riding with underage individuals, it might be a great instrument to help handle liability concerns and to track the vehicle in the event of a theft.
* For software and tools, though it would not be required, they might want to consider eventually getting a CDN (Content Delivery Network) as their business continues to grow. This would be helpful in handling high volumes of users or DDoS attacks. In the event that DriverPass decides to partner with local high schools throughout their area to expand their reach, the probability of receiving a high number of users during their after-school hours will be pretty high. A CDN will help to prevent any disruptions in such an event. The Owner also mentioned downloading reports in Excel, so it might also be noteworthy to add some sort of spreadsheet software, so that the Owner, members of security, and office personnel can further manage any reports generated by the system.
* For infrastructure, all data will be stored in the cloud, so it is imperative that the systems have adequate security measures in place to protect that stored data. I would also consider a third-party system, like PayPal, to handle the purchase of transactions. The owner expressed that they would like to take down credit card information for purchases, but honestly, this is a tremendous risk considering that students will only be buying from a list of a few offered packages. It would be wiser to take advantage of a secure third-party POS; though they would still have to worry about securing the customer and system data, the lack of having stored financial information will make cyber-attack attempts less appealing.