# DriverPass System Design Document

## UML Diagrams

### UML Use Case Diagram

Diagram

Description automatically generated

### UML Activity Diagrams

Diagram

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### UML Sequence Diagram

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### UML Class Diagram

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## Technical Requirements

*Availability and data quality are huge technical requirements for the DriverPass system. Having the system up and running is very important as people have different schedules and may have to make changes to their reservations at all hours. That is why the system is being run on the Microsoft Azure cloud computing system for enhanced reliability and minimum downtime.*

*The system also needs to be accurate. We can never afford to have a reservation be double booked because the system failed to update a booking for a booking being made close to the same time for the same time slot. It is first come first serve, and the system must never allow for a situation where two clients take the same reservation. To ensure this the system will have a built-in fail safe where it checks for availability the moment before it assigns the reservation. This way of updating the system in real time will keep the system accurate.*

*The system also needs to update regularly. This should be done on a transactional basis. That is to say the system should update every time a reservation transaction is made. If a cancelation is made then the system should make that time slot available to the other clients. A modification to a reservation should take a slot and open a slot.*

*Performance is also important for the taking of the online course and the DMV test. Those systems need to run well for the client who may be using a phone and working from a touch screen. The online course may stream video throughout the course, and it is important that the person can leave the course at any time and resume it later as it is lengthy. It is important the course loads and resumes for the client where they left off as it is designed to do. Again, working from the Azure platform lends to high end streaming capabilities which support our clients in this endeavor. The DMV test as coded is not set to be paused and will need to be completed and scored in one sitting. If a time out does take place the test will be scored, and the client will have to start a new test. This is to give the client the feel of a real DMV test that they cannot press pause on. Of course, the client gets unlimited practice tests.*