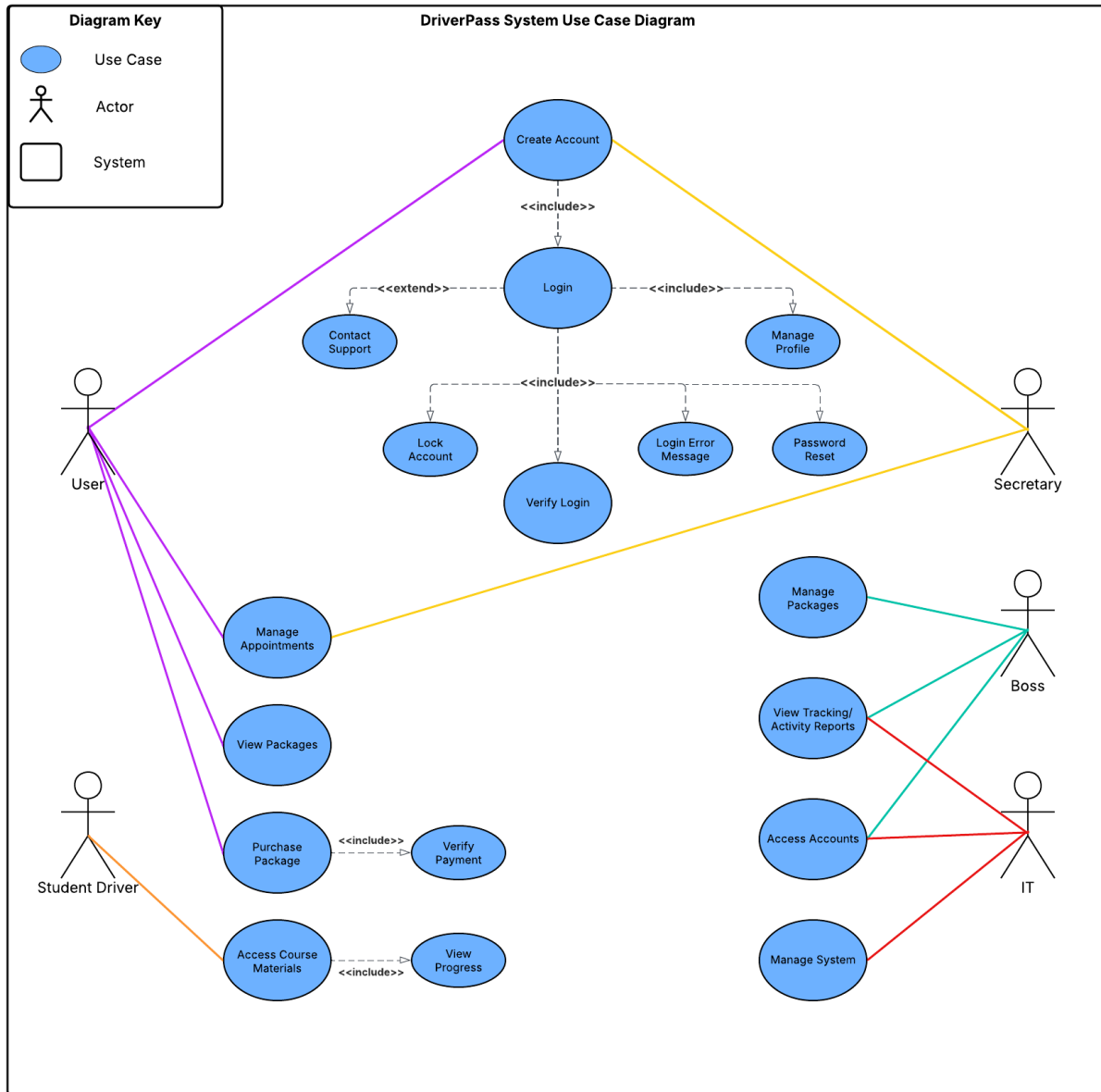


CS 255 System Design Document – Ava Lindgren

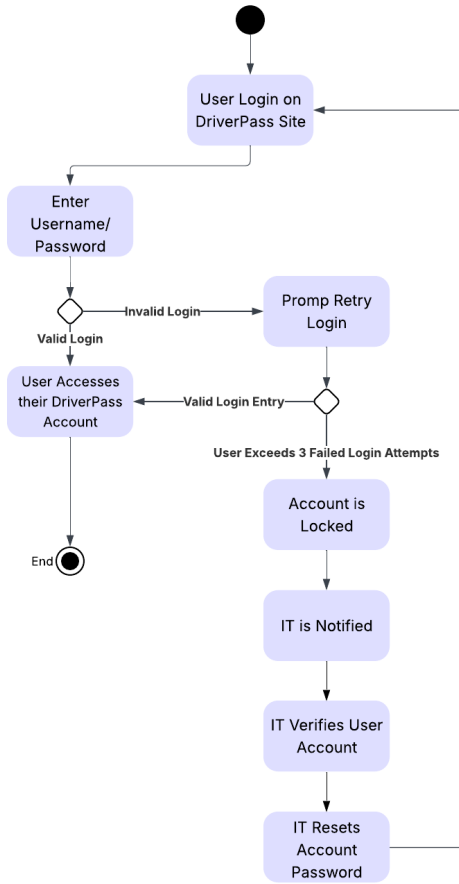
UML Diagrams

UML Use Case Diagram

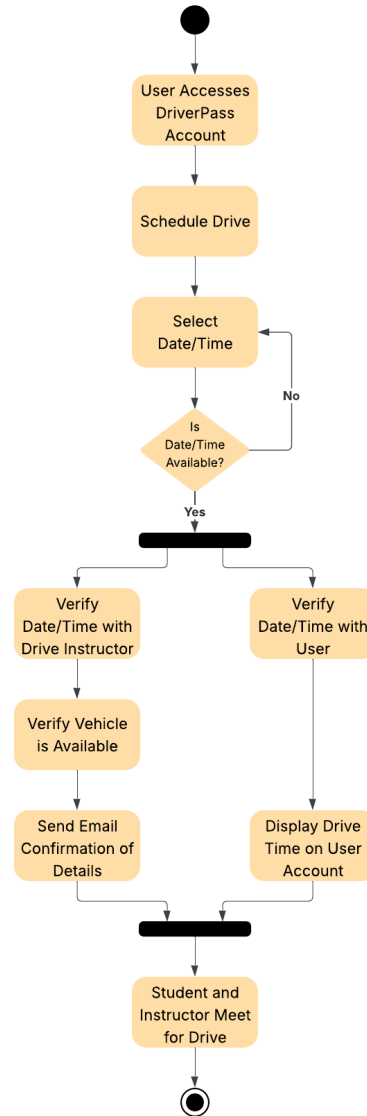


UML Activity Diagrams

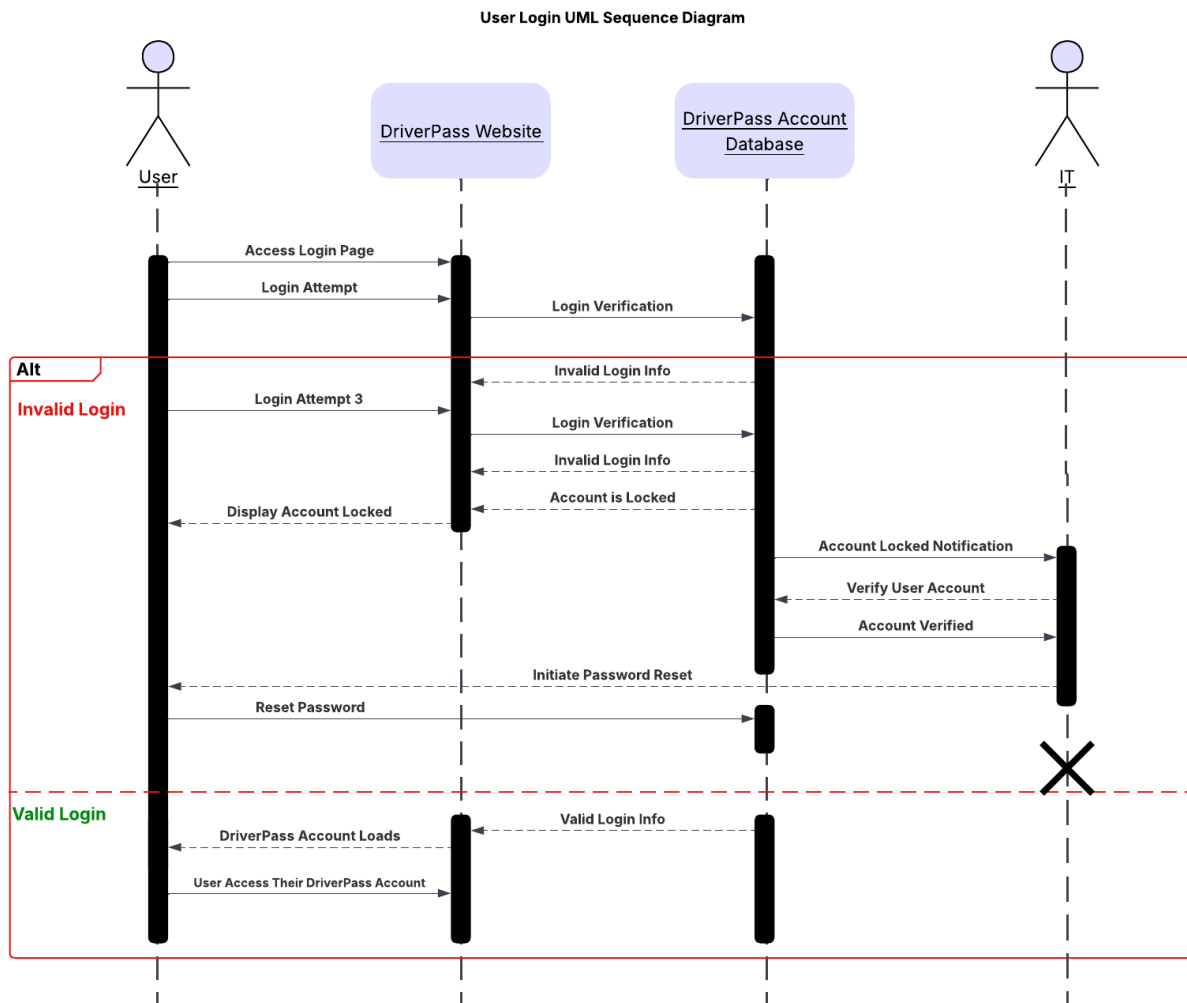
User Login Activity Diagram



User Schedule Drive Activity Diagram

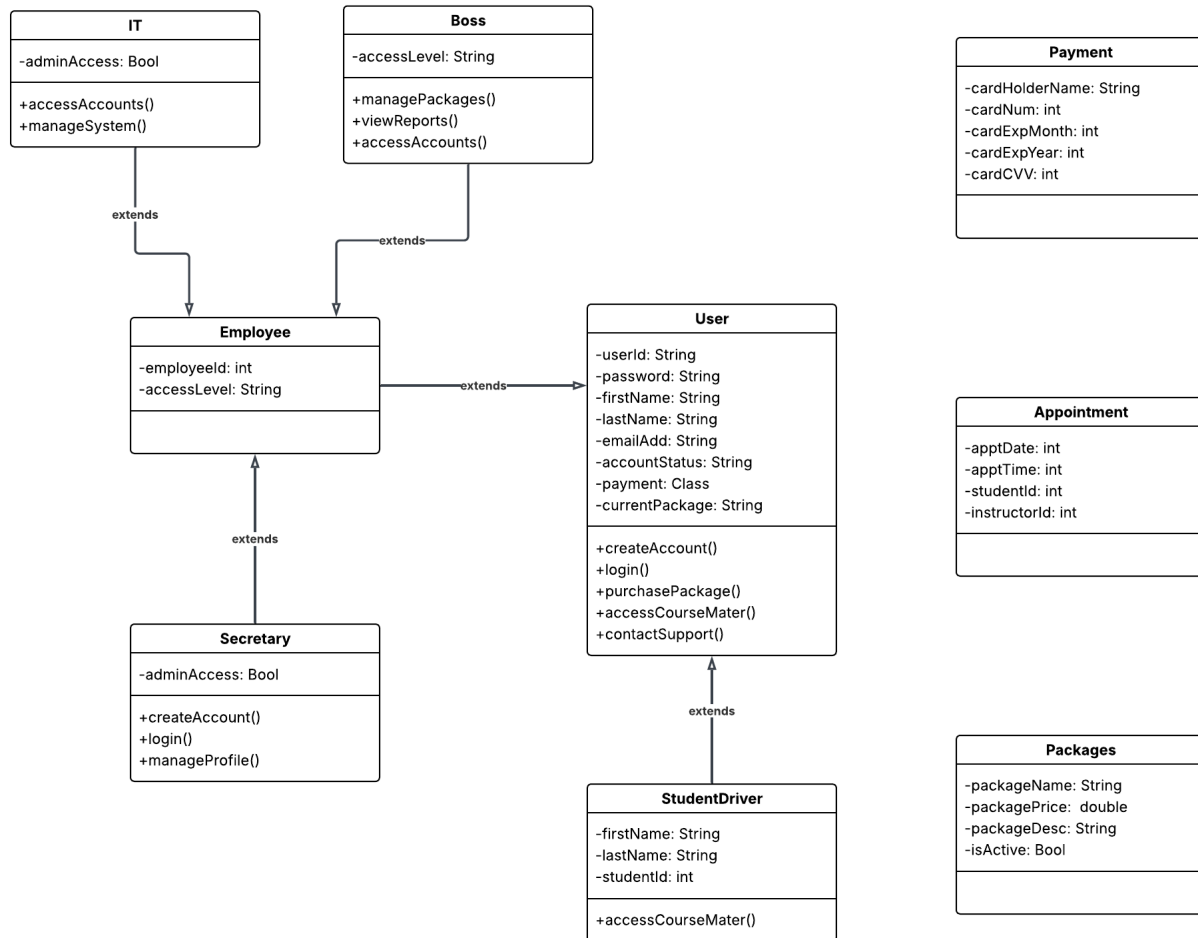


UML Sequence Diagram



UML Class Diagram

UML Class Diagram



Technical Requirements

To make sure that DriverPass operates smoothly and reliably, a solid technical foundation is essential. For hardware, users will need a computer or laptop equipped with a keyboard and mouse, or a mobile phone, along with dependable power sources to keep operations uninterrupted. A stable internet connection, whether through a Wi-Fi router or a direct Ethernet cable, is necessary to access the platform and its features without disruption.

From a software perspective, the system requires a compatible operating system capable of supporting modern applications. The DriverPass software runs through a web-browser application, making accessibility simple and convenient. Up-to-date security software helps protect user data and maintain system integrity, while built-in progress tracking tools allow students and administrators to monitor learning progress efficiently.

DriverPass operates within a cloud-based environment, eliminating the need for complex local installations and allowing users to access the system from virtually anywhere. This cloud infrastructure depends on secure and reliable internet service, supported by proper networking cables and a well-designed cloud architecture to ensure consistent performance. Integration with the DMV enables access to relevant driving requirements and records. Beyond the digital components, the program also relies on fully insured driving vehicles for hands-on lessons, supported by appropriate insurance packages to guarantee safety and compliance.

Bulleted List

Hardware:

- Computer/ laptop, keyboard & mouse, or mobile smart phone
- Power sources
- Internet connection (Wi-Fi router/ ethernet cable)

Software:

- Compatible operating system
- DriverPass software
- Web-browser application
- Security software
- Progress tracking

Tools:

- Running in the cloud

Infrastructure:

- Secure and reliable internet
- Networking cables
- Cloud architecture
- Connection to DMV
- Driving cars for lessons
- Insurance packages