CIS174 – Advanced C# Final Project Idea

Chris Bodirsky

**Route Forger**

Resources Needed:

* Visual Studio 2022
* ASP.NET Core with Razor Pages
* SQL Server
* Github (for version control)
* Smartphone and scanner emulation (for testing driver tools)
* Bootstrap or other for UI
* Azure (or other) for deployment
* Sample data for testing

Route Forger is a modular web application designed to streamline routing and dispatch needs. The system provides dispatchers with a clear interface for open deliveries, currently assigned delivery routes, available and on route drivers, as well as easy access to creating new deliveries and routes. Drivers access a mobile friendly portal that displays relevant information for the location, package details, and various tools to complete the job include a barcode/QR code scanner, photo uploads, and signature collection. Administrators have access to system-wide settings and customization options to tailor the platform to specific business needs.

From the dispatcher’s perspective, the application supports creating and modifying delivery routes. This will include addresses, related package identifiers (both received from the client as well as internal assignments), and instructions or notes. Dispatchers can assign drivers to one-time or recurring routes and adjust delivery order as needed. The system also tracks driver availability and route status, allowing for real-time updates and reassignment. All delivery data is stored securely and can be edited or removed as required.

Drivers interact with the app by viewing their assigned routes and accessing detailed information for each stop. They can reorder deliveries based on real-world conditions, confirm package drop-offs, and submit required documentation such as photos or signatures. The interface includes quick access to contact dispatch or clients if issues arise. This flexible design ensures that both dispatchers and drivers can adapt to changing conditions while maintaining clear communication and accountability.