Lab 2 Section 3 Collaborative Outline

1. Specific Requirements
	1. Functional Requirements
		1. Databases (**Thomas Kennedy)**

*Figure: Database Schema*

* + - 1. Driver Profile Database

*Figure: Customer Database ERD (site)*

* + - 1. Virtual Checkpoint Database

*Figure: Route Database ERD (site)*

* + - 1. Speed Limit Database

*Figure: Speed Limit Database ERD*……………………(**TO DO**)

* + 1. Algorithms
			1. Aggregate Speeds **(Nick MacLeod)**
			2. Checkpoint Allocation **(Andrew McKnight)**
			3. Checkpoint Reallocation **(Binh Dong)**
			4. Route Matcher **(Andrew Crossman)**
			5. Route Analysis **(Thomas Kennedy)**

*Figure: Route Analysis Algorithm (site)*

* + - 1. Blockage Finder **(Sujani Godavarthi)**
			2. Next Checkpoint ETA **(Andrew McKnight)**
			3. Driver Generator **(Andrew Crossman)**
		1. Simulation Console **(Andrew Crossman)**
			1. Region Selection
			2. Traffic Scenario Selection
			3. Driver Generator
			4. Simulation Runtime Execution
			5. Traffic Activity Display
		2. GUI
			1. Smartphone Application (w/ *Figures (screenshots)*) **(Andrew McKnight)**
* GUI: Login
* GUI: New/Edit Route
* GUI: Route Tracer
* GUI: Travel Map
* GUI: End of Trip
* GUI: Delay Notification
	+ - 1. Simulation Console (figures)…………….(**TO DO, Andrew Crossman**)
	1. Performance Requirements
		1. Database Read/Write Speed **(Nick MacLeod)**
		2. Smartphone Resource Management **(Sujani Godavarthi)**
		3. Wireless Data Transmission Speed/Fidelity **(Binh Dong)**
		4. Algorithm Efficiency **(Andrew McKnight)**
		5. Simulation Demonstration **(Andrew Crossman)**
	2. Assumptions and Constraints **(Collaborative)**
		+ Assumptions: Driver base

*Table: Assumptions Table*…………………………**(NEEDS EDIT)**

* 1. Non-functional Requirements **(Sujani Godavarthi)**
		1. Security
		2. Maintainability
		3. Reliability
			1. Server Uptime/Redundancy