Report #2

For

“Better Automobile Inventory Management”

CSCI441\_VA

Software Engineering

Fall 2019

<https://github.com/gculver/SoftwareEngineering_FinalProject>

Team:

Paul Whitely

James Cox

Grant Culver

September 9, 2019

Revision History:

|  |  |
| --- | --- |
| Version No. | Date of Revision |
| v.1 | 9/30/2019 |
|  |  |
|  |  |

**Contents**

Contents

1. Class Diagram and Interaction Diagram
   1. Class Diagram……………………………………………………………….?
   2. Data Types and Operations………………………………………………….?
   3. Tracability Matrix…………………………………………………………...?
2. **Class Diagram and Design Patterns**

**2.1 Class Diagram**



**2.2 Design Patterns**

The primary design pattern for this project will be the Model-View-Controller. The data model will be stored in a mySQL database and constraints and any necessary interface will be developed here. The Controller portion of the system will be written using PHP to interface with the database and external APIs. The system will present views of the information using HTML, Javascript and PHP.

1. **System Architecture**

The automotive inventory system will use a component-based design. Each non-trivial piece of the system will be based upon components that each have a well-defined purpose. These components will come from frameworks (e.g. PHP), external APIs or be custom-coded to support the application.

The system will be based on a LAMP stack. The operating system will be Linux supported by and Apache web server. Database storage will be MySQL and the primary programming language will be PHP. Javascript libraries will be utilized primarily to support the user interface and external libraries might be written in other languages (such as C++) that will be called from PHP code.

The system will be developed on local machines with updates published to GitHub. Testing and the final versions will be hosted on a cloud service to verify proper operation and to support potential usage by commercial customers.