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**Prepared By:**

**Jyoti Nikam, Snehal Jadhav, Tejas Ghalsasi, Sumant Hegde, John Hunsaker**

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**Professor Lidia Morrison**

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The “Hey Supply” Inventory Management System was designed to allow a business to seamlessly and easily use the power of the cloud to keep track of inventory intake, storage, and usage. A system to track the logistical actions of a company forms the backbone of any profitable business, and this system succeeds in coalescing all the core functions into a simple yet elegant web application. The languages and technologies used in creating the web application and database include HTML, CSS, AngularJS, Node.js, JBoss, Tableau Server, H2 Database, Eclipse IDE, Atom IDE, GitHub, and Slack. For practical business purposes, the system is extremely versatile in that it can manage different sizes, locations, and types of inventory, including products being shipped or manufactured for sale, or inventory for business overhead such as capital purchases and office assets.

The user experience begins with a welcome webpage, displaying cutting edge graphics and various tiles advertising the system capabilities. Contact information for company support may be found on the bottom of the webpage, and the “Login” and “Register” buttons may be found in the upper right corner. The user may click the former to log in using pre-assigned credentials, and the latter to register a new account. Upon successful entry of user credentials, a dashboard webpage will appear, with icons for navigation to the “Inventory”, “Reports”, and “Admin” modules. The user may also click the button to “Log Out” at any time, and the current state of their work will be automatically saved.

The “Inventory” module webpage displays a sequential list of all items currently in one of the company’s storehouses, with basic statistics also listed. The user may drill down and see full details on any inventory by clicking it, including but not limited to the items present, quantity, when stocked, manufacturing date, etc. The user may also “add”, “edit” and “delete” items, quantities, descriptions and costs. This allows employees and management to keep a complete virtual record of the physical status of all company inventory at all times. Upon navigation to the “Reports” module webpage, the user will see automatically-generated charts and graphs of the current items in the inventories. These charts include bar graphs by item location that are further subdivided into item type, pie charts of total inventory items, and line graphs for resource allocation. Furthermore, there are buttons to allow the user to download the displayed data in .xls and .csv formats. This gives management visually clear overview of the distribution of company resources. Upon navigation to the “Admin” module webpage, the user has the capability to update or delete employee information, and perform maintenance on the system.

The system has the capacity to holistically manage most supply chain and operations functions for a small or large business. It has shown the ability to simultaneously maintain scalability, efficiency, and seamless performance with high visual refinement. Next steps might include the addition of a “Catalog” module. This would enable the user to view and edit lists of templates for units of measurement, item types, and warehouse locations. The user might also have the capability of adding new templated types. Once saved, these templates could then appear in dropdown menus in the fields in the “Inventory” module, which would serve to limit and control the user’s input to pre-authorized options.

*References*

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