1. INTRODUCTION:

Inventory management is the process of efficiently overseeing the constant flow of units into and out of an existing inventory. INVENTORY MANAGEMENT WEB APPLICATION is a simple and easy to handle application developed by me to keep an eye on the products available in the inventory, product is in stock or not or else the particular product is active or not?

Inventory Management Application has been developed using ANGULAR JS, PHP and MySQL. Angular JS has been used for front-end application development whereas PHP has been used for back-end development. Meanwhile MySQL is used to create a database where the inventory's product data are stored.

2. FEATURES:

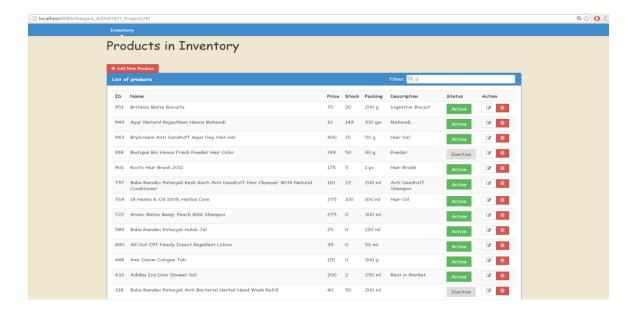
- The project I developed is a single page web application.
- AngularJS directives makes the job effective, efficient and easy.
- Animations makes the user interaction smooth and less complex.
- Inventory Management Web Application can be used to build a large inventory to store products in the inventory, using the frameworks mentioned above.
- Products can be seen accordingly, by using filter option present in the right hand corner of the web application.
- Data is dynamic according to User defined form.
- Ability to read, add, update, delete, activate and deactivate products from inventory.
- There will be 3 directives essential for this simple application:
 - i. Form-element (Form element templates)
 - ii. Only-numbers (It restrict users from entering alphabets in a number field)
 - iii. Animate-on-change (Animates a particular product when it is updated)

3. REQUIREMENT SPECIFICATION:

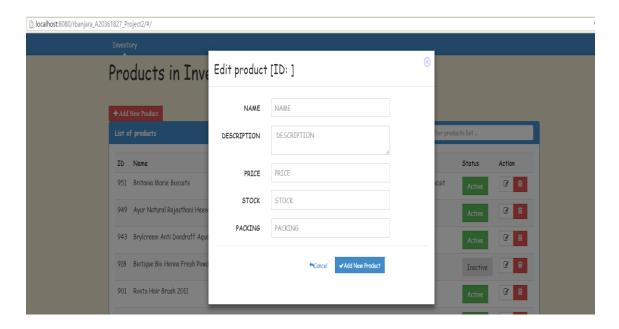
- Add, Edit, Update and Delete products to inventory.
- Activate or deactivate the products in inventory.
- Filter list of products at the product inventory.

4. WORKING APPLICATION:

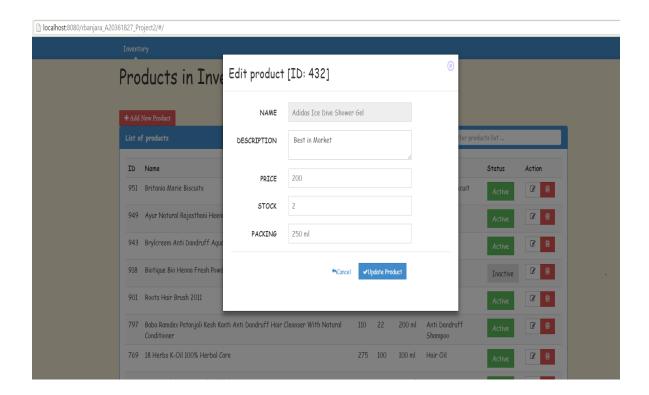
- Below is the working description of the Inventory Management Web Application along with the screenshots of the web application showing the various functionalities and features implemented in the project.
- User interactive single page Inventory Management web application. User is able to read all the
 products present in the inventory. The products and details of each product in the inventory is
 displayed in the tabular format.



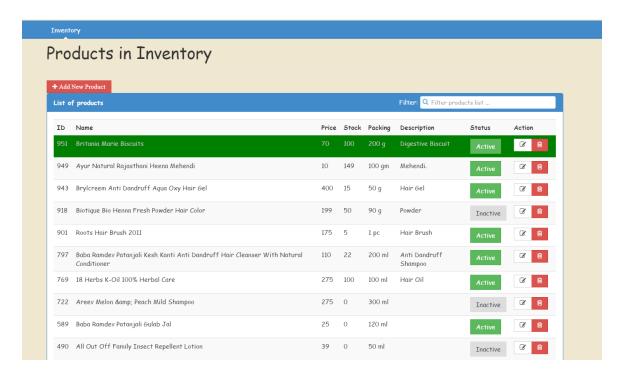
 User can add the products in the inventory by clicking the button Add New Product and then on the same page User form will pop up containing the details of the product. Once user fills all the details and clicks Add New Product button, the product gets automatically updated to the inventory.



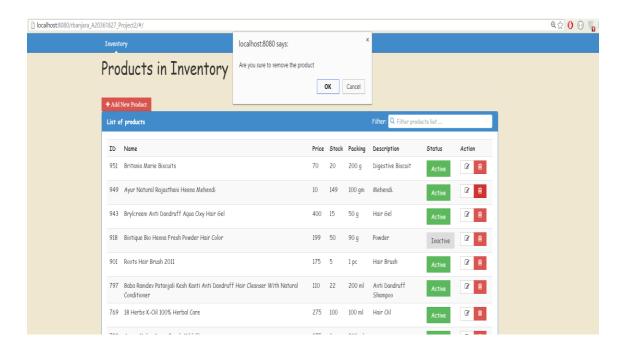
• User can update the product present in the inventory, to increase/decrease the stock, description or else price of the products etc. When user click the update icon present in each row of the inventory product table, a user form appears corresponding to the product needs to get updated.



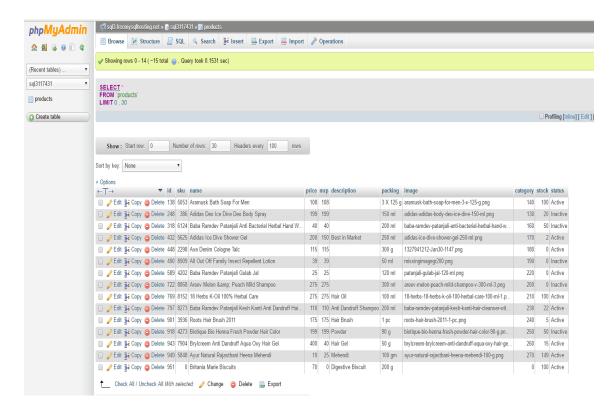
Once the product gets updated, it is highlighted by the green bar.



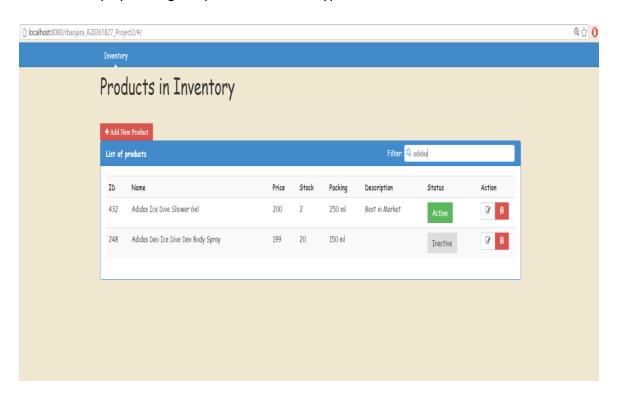
The user can delete the product which is no longer active in the inventory or else no longer is in
use, by clicking the delete button. A dialog box will pop up to confirm either the user really means
to remove the product from the inventory or not. Once user confirms, the product gets deleted
and changes gets reflected to the database.



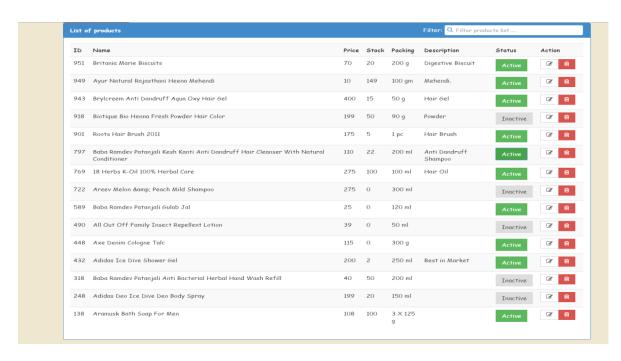
 Whenever user adds a product, updates a product or else delete the product from the inventory, each time the changes in the product data gets reflected in the inventory database which is created using MySQL.



• A real time filter option is available for the user to filter their search for the particular product in the inventory by writing the product name or type in the search filter bar.



At last but not the least, if the product is active and is no longer in stock, user can mark it inactive
just by clicking the button or else if the product was inactive and now the product is available,
user can mark the product active in the inventory product's list.



5. TECHNOLOGIES USED IN INVENTORY MANAGEMENT WEB APPLICATION:

- Scripting Languages: HTML5, PHP-5.6.16, JavaScript, AngularJS-1.5.5 and CSS3.
- Database Management: MySQL version-5.7.9.
- WAMP Server 3.0.0 Windows web development environment.
- Computer Environment: HP ENVY x360 laptop
- Operating System: Windows 10 Home, 64 Bit operating system, x64-based processor.
- Processor: Intel(R) Core(TM) i7
- Tools: Sublime Text Editor 3.
- Frameworks: PHP Slim Framework version1.
- Application structure and Libraries used:
 - ❖ API Act as a REST data provider.
 - ❖ libs PHP Slim library
 - v1 API version 1
 - .htaccess to converts urls.
 - dbHelper.php The helper functions to connect to MySQL
 - ❖ Database.config.php Database credentials and configurations.
 - CSS bootstrap.min.css, custom.css, font-awesome.min.css
 - ❖ Javascript libraries: angular.min.js, angular-route.min.js, angular-animate.min.js, bootstrap.min.js jquery.min.js, ui-bootstrap-tpls-0.11.2.min.js, underscore.min.js.

6. STEPS REQUIRED TO RUN THE APPLICATION:

- Download the zipped project file (rbanjara_A20361827_Project2.zip) from the blackboard and extract the zipped project file.
- The inventory database has been created in sql3.freemysqlhosting.net.

Server: sql3.freemysqlhosting.net

Name: sql3117431 Username: sql3117431 Password: TeEA7WkJfW Port number: 3306

Database name: sql3117431

- The back end part of the project has been developed in PHP using WAMP server.
 If WAMP is not installed locally on your system, please install WAMP server from http://www.wampserver.com/en/. After installing WAMP server, start the WAMP server (start all services).
- I tried to host the web application on the internet http://rudranarayan.com/project2/ but due to authorization error to access the database, database isn't displaying/ loading in the web application portal.
- Now, Move the extracted folder to the www folder of the WAMP system present in the C Drive.
 Run the web application locally (localhost) from the web browser, preferably Google. The URL in the browser should appear like this: http://localhost:8080/rbanjara A20361827 Project2/#/.

7. LEARNING EXPERIENCE:

- The main reason behind choosing this course was my love and passion for website design and development though I don't like coding much.
- During the development of the project, the most difficult task for me was to connect the angular JS with PHP as I learned Angular JS just now in the RIA classes. This project was more time taking than other RIA assignments and projects though I enjoyed doing this assignment as I was learning something new.
- I watched class lectures again and again to learn Angular JS and also completed the tutorial from Code School and earned three badges, which act as a boost for me and then I started working on my project.
- First I thought of to make some application related with Angular JS, Node JS and MongoDB altogether. I tried, but I didn't get anything working on my favor. Then at last I ended with Angular JS with PHP and MySQL.
- Working for this project was a tough task for me, as I was getting so many errors and bugs again
 and again. Once I thought I won't be able to complete the project on time but with the help of
 video lectures and online tutorials I was somehow able to complete the required and specified
 project on time.
- Lastly, it was a great learning experience for me, my interest in the field of website design and development has been grown day by day and still I want to learn more and willing to take courses like RIA in future semesters.

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