

## Web based Industrial Drycleaner billing system with security

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**Abstract:-**To manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system. Laundry firms which use a manual system for the management and to maintain the relative data on daily basis is overhead and time consuming. Web based laundry billing process provides unique assistance for the ease of customers such as on-demand laundry service, dry cleaning laundry service, express laundry service and web based laundry billing & security. The purpose of this project is to make fully customized responsive web based application to reduce manual work of billing & acknowledge process. In this project Professionals, who are running their business or are doing corporate jobs, have a time crunch always. For them a laundry service is bliss. As the huge work of maintaining laundry process allocating a special person for

manually recording the customer item, quantity and their billing makes overheads and a possibility of inaccurate data entry. To overcome the hardworking and time consuming process which will intake more time, efforts and cost .We will develop a system which will maintain the entire data and billing and also relatively acknowledgement to the customer about their bills.

**(Keyword:-** customer satisfaction, database, laundry, management, MySQL, Springboot, Maven, Javascript)

**Introduction:-**We present the design and implementation of a Web based laundry management system used in a laundry establishment. Laundry firms are usually faced with difficulties in keeping detailed records of customers clothing. To manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system. Web based laundry billing process provides unique assistance for the ease of customers such as on-demand laundry service, dry cleaning laundry service, express laundry service and web based laundry billing & security. The Aim of this to manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system.

### EXISTING SYSTEM

Laundry firm currently uses a manual system for the management and maintenance of critical information. The current system requires

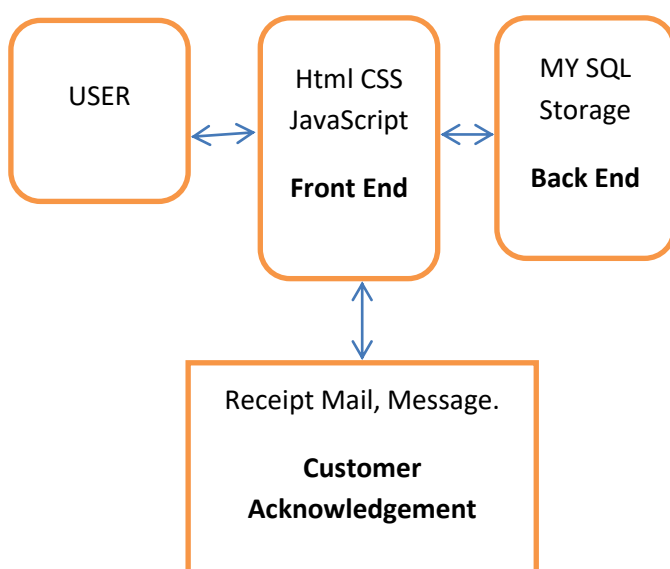
numerous paper forms, with data stores spread throughout the Laundry firm management infrastructure. Often information (on forms) is incomplete, or does not follow management standards. Forms are often lost in transit between departments requiring a comprehensive auditing process to ensure that no vital information is lost. This has lead to inconsistencies in various data due to large volume of contrasting customer details leading to mix-up of clothes in the laundry firm which thus leads to delay in collecting the clothes

## PROPOSED SYSTEM

The Laundry Management System is designed for any Laundry firm to replace their existing manual, paper based system. The new system To manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system &

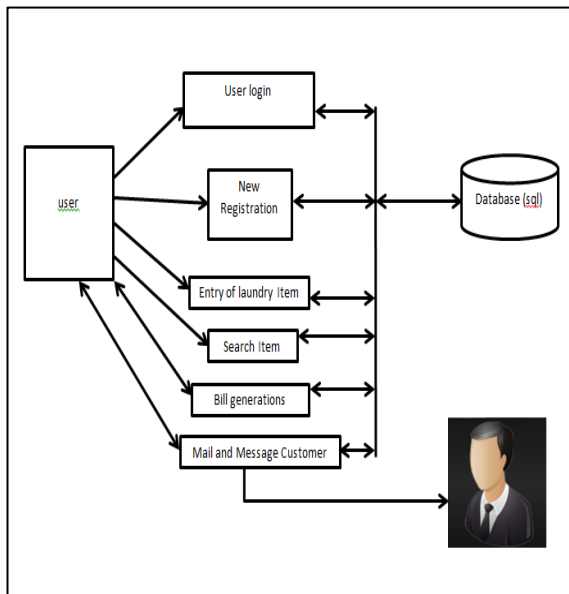
registration system to control the following; customer information, products, services, users ,mail and receipt. These services are to be provided in an efficient, cost effective manner, with the goal of the web based laundry management system to manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system.

The goal of the laundry management system is to provide a computerized process that is stress free, reliable and quick through the use of Java Computer programming language and SQL database application to the users and staffs in charge of the registration of customers and laundry management processes. Html JavaScript would be at the front-end and provide the graphical user interface that relates with the user, while the SQL database will be at the back-end to handle the data storage process.



**Fig 1. Diagram of the Front and Back End Relationship**

## SYSTEM ARCHITECTURE:



System analysis is a method of problem-solving that deals with the breaking down of a system into components parts in order to study how well the individual parts work and interact to accomplish their purpose. It involves the process of enumerating the existing problems, analyzing the proposed system for costs and benefits, analyzing the system and user requirements and considering possible alternative system.

## TOOLS:

### Maven:-

Maven is a project management and comprehension tool that provides developers a complete build lifecycle framework. Development team can automate the project's build infrastructure in almost no time as Maven uses a standard directory layout and a default build lifecycle.

In case of multiple development teams environment, Maven can set-up the way to work as per standards in a very short time. As most of the project setups are simple and reusable, Maven makes life of developer easy while creating reports, checks, build and testing automation setups.

### Spring Boot:-

Spring Boot is an opinionated framework built on top of the spring Framework. Spring typical requires a lot of configuration. Spring Boot simplifies this setup by providing defaults for many features. You can still adjust the defaults according to your needs. Spring Boot is mostly used to create web applications but can also be used for command line applications. A Spring Boot web application can be built to a stand-alone JAR. This JAR contains an embedded web server that can be started with java -jar.

### Mysql:-

The name of MySQL is the combination of My and SQL, MySQL. MySQL is a database management system that allows you to manage relational databases. It is open source software backed by Oracle. It means you can use MySQL without paying a dime. Also, if you want, you can change its source code to suit your needs.

### JWT Authentication:-

JWT (shortened from JSON Web Token) is the missing standardization for using tokens to

authenticate on the web in general, not only for REST services. Like any other token, JWT can be used to pass the identity of authenticated users between an identity provider and a service provider (which are not necessarily the same systems).

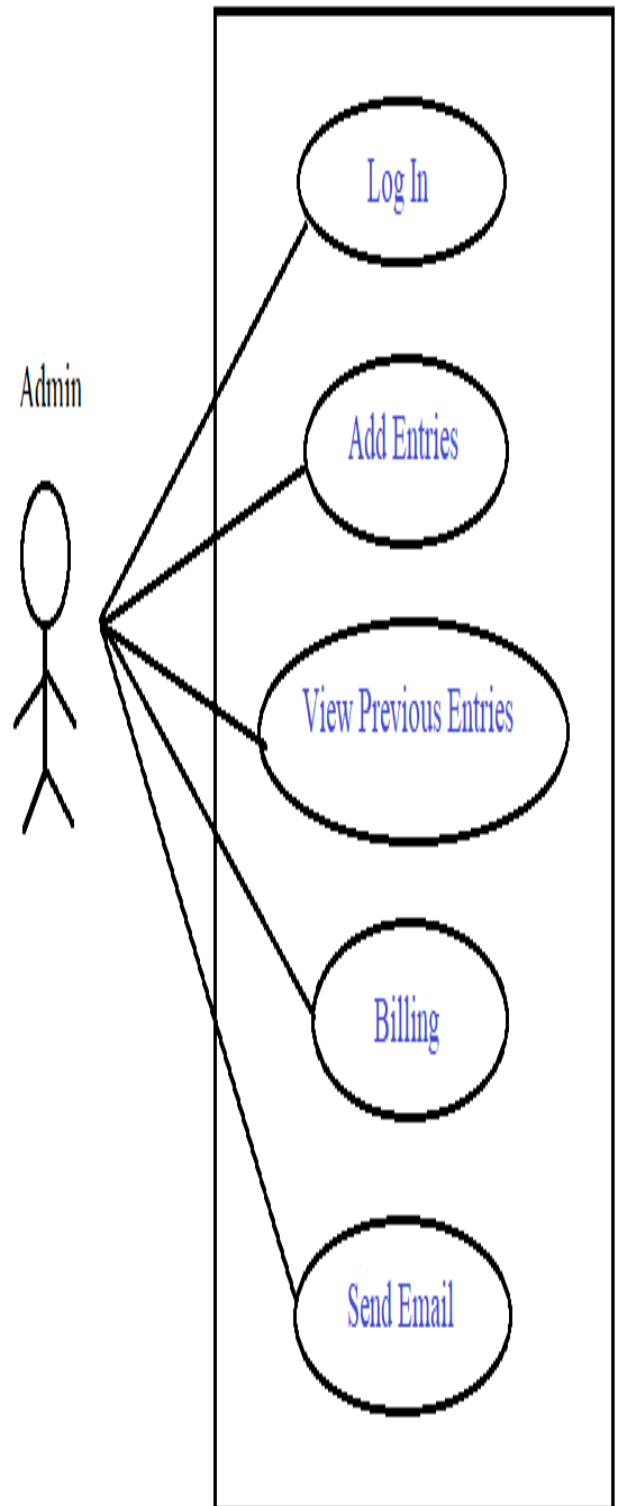
It can also carry all the user's claim, such as authorization data, so the service provider does not need to go into the database or external systems to verify user roles and permissions for each request; that data is extracted from the token.

#### USER INTERFACE REQUIREMENT:-

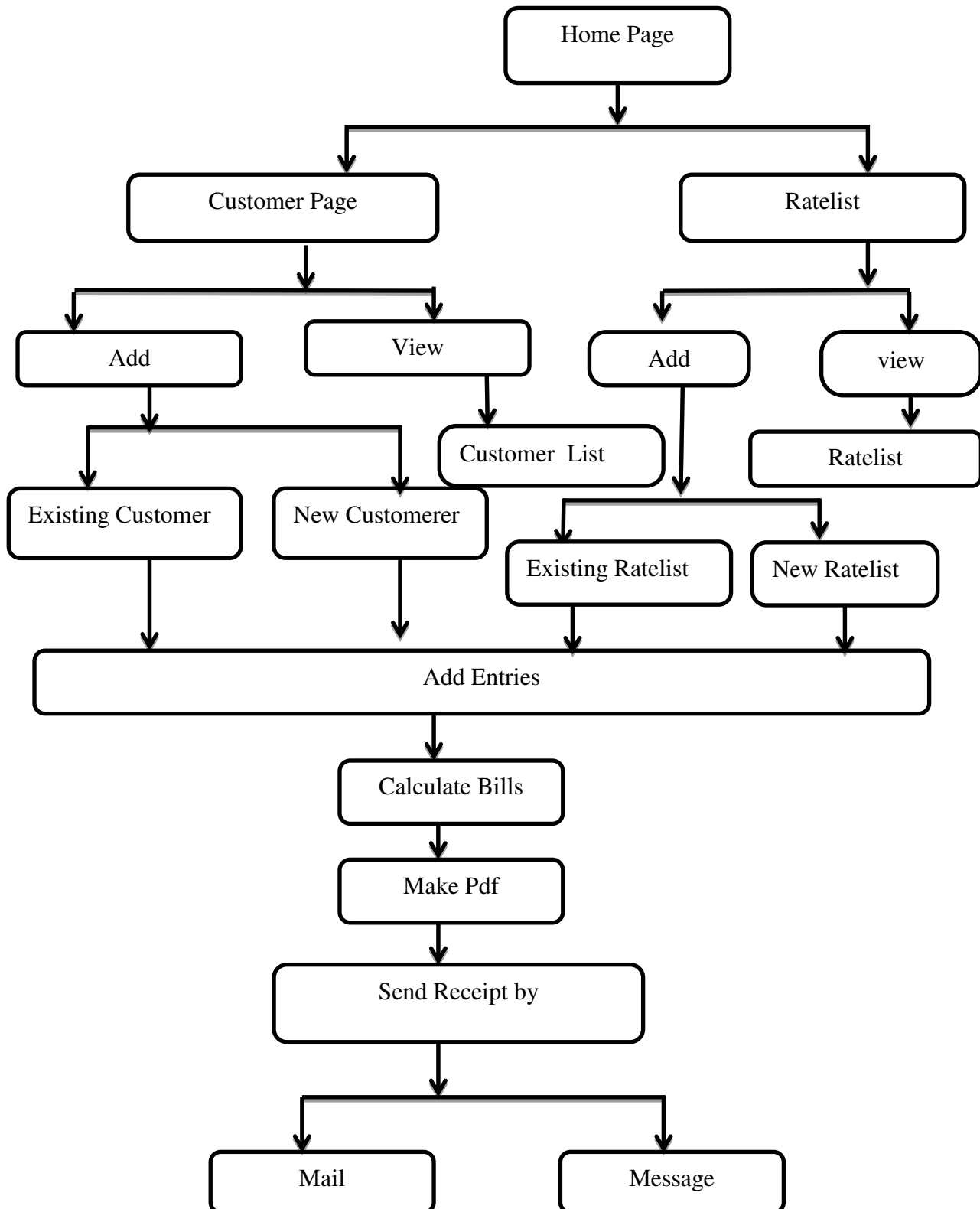
User interfaces are the registration pages developed for the customers and users to register and manage the items brought. They consist of the following:

- login page (Username and password)
- Product page
- View customers
- View records
- Search for customers
- Register a new user
- Print Receipt
- Mail Receipt

#### USECASE DIAGRAM:-



## Data Flow Diagram



## Implementation:-

### 1. User Module:

In this module, User Login is include.

#### User Login:-

In this section user can login with the help of valid Username and Password.

After successfully login, user can access the system.

### 2. Dashboard:-

In this module, there are three section

1. Customer
2. Rate
3. Billing

#### 1. Customer:-

In this section user can register new & existing customer after successful registration user can view the customer list.

#### 2. Rate :-

In this section, there are three sections .

Ratelist : In this section user can add itemwise and calculate the total amount on daily basis.

Entry: In this section user can add entriesCustomerwise& calculate the total amount on daily basis.

#### View Entries:-

In this section user can view all entries & also edit entries.

### 3. Billing :-

In this section, receipt is generated and send this receipt by using mail.

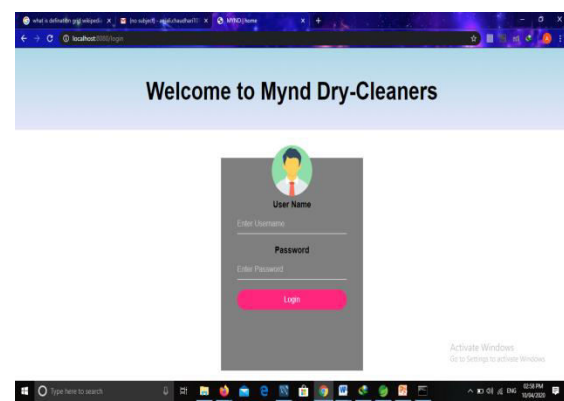


Fig 1. Login Page

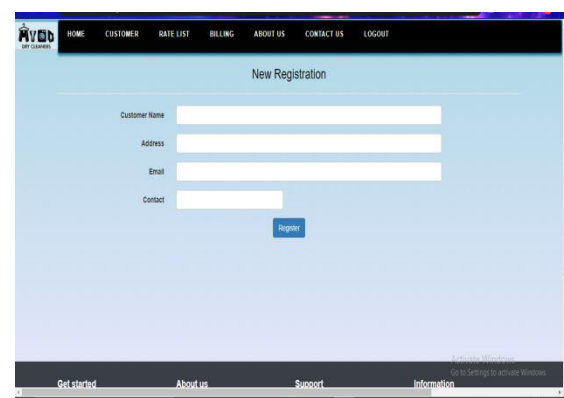
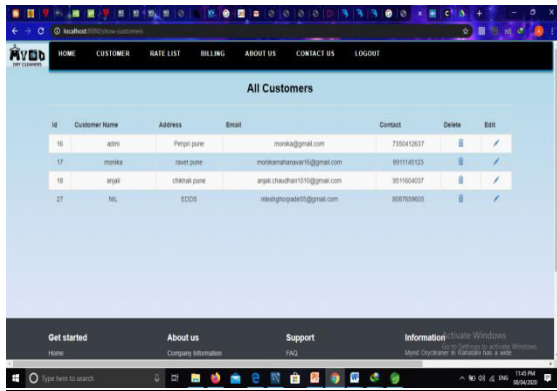


Fig 2. Customer Registration Page



ID	Customer Name	Address	Email	Contact	Delete	Edit
16	anvi	Persip pune	monika@gmail.com	730043037		
17	monika	persip pune	monikamatharav16@gmail.com	9911451023		
18	argal	chikhal pune	argal.chaudhari15@gmail.com	9019504037		
27	NIL	EDCR	neerajprasad@gmail.com	8087630005		

Fig 3.Customer List

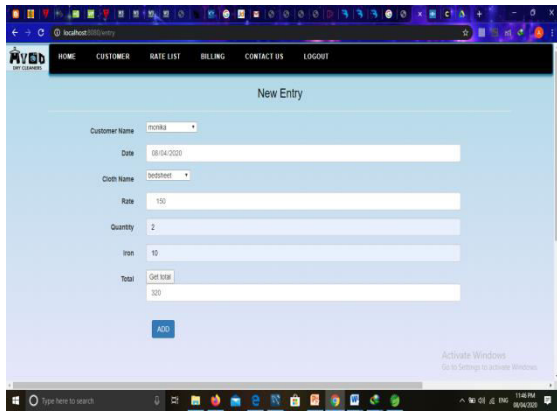
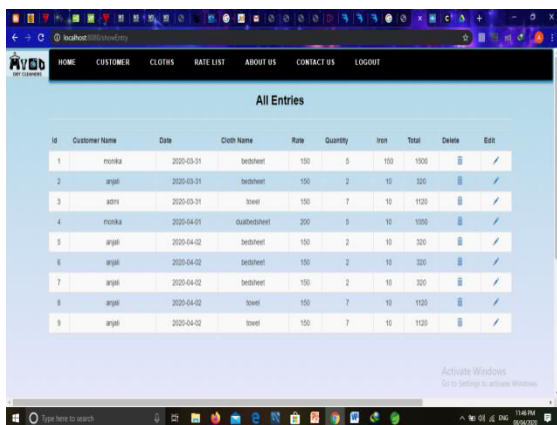
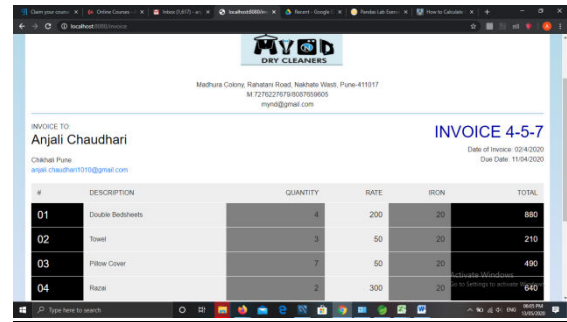


Fig 4.Entry Page



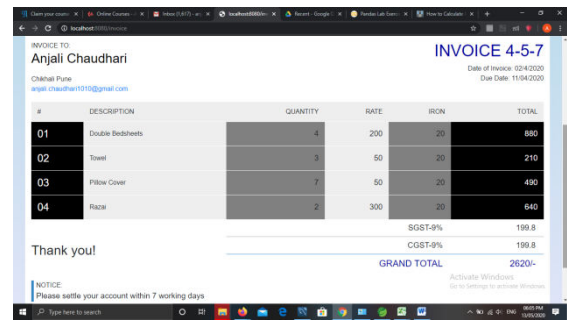
ID	Customer Name	Date	Cloth Name	Rate	Quantity	Iron	Total	Delete	Edit
1	monika	2020-03-31	bedsheet	150	5	10	1000		
2	argal	2020-03-31	bedsheet	150	2	10	320		
3	anvi	2020-03-31	towel	150	7	10	1120		
4	monika	2020-04-01	doublebedsheet	200	5	10	1000		
5	argal	2020-04-02	bedsheet	150	2	10	320		
6	argal	2020-04-02	bedsheet	150	2	10	320		
7	argal	2020-04-02	bedsheet	150	2	10	320		
8	argal	2020-04-02	towel	150	7	10	1120		
9	argal	2020-04-02	towel	150	7	10	1120		

Fig5.Entry List



#	DESCRIPTION	QUANTITY	RATE	IRON	TOTAL
01	Double Bedsheets	4	200	20	880
02	Towel	3	50	20	210
03	Pillow Cover	7	50	20	490
04	Race	2	300	20	640

Fig 6.1 Billing Receipt



#	DESCRIPTION	QUANTITY	RATE	IRON	TOTAL
01	Double Bedsheets	4	200	20	880
02	Towel	3	50	20	210
03	Pillow Cover	7	50	20	490
04	Race	2	300	20	640
					199.8
SGST-9%					199.8
COST-9%					199.8
GRAND TOTAL					2620.0

Fig 6.2 Billing Receipt

## Future Scope:-

Can be modified by implementing the IOT features for recording and tracking the items, which will in turn speed up data storing, updating ,recording will also improve and free the owner from maintaining it personally. IOT implementation which will do it automatically by various sensor.

**Conclusion:-**

In this way, with the help of Web based application we manage the data of the customer & reduce the manual data entry work by providing a secure billing & relative acknowledgement system.

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