

# **INVENTORY SYSTEM** **MANAGEMENT**

## **USING PHP** **AND XAMPP SERVER**



### **A SUMMER INTERN REPORT**

**SUBMITTED TO:**

MR NAVEEN JAIN

DGM(C&IT)

**SUBMITTED BY:**

PANKAJ PAHUJA

SURAJ SINGH RAWAT

VARUN BHARDWAJ

# **CERTIFICATE**

This is to certify that Mr. Pankaj Pahuja, Mr. Suraj Singh Rawat and Mr. Varun Bhardwaj has successfully completed 6 weeks of industrial training during the period 11<sup>th</sup> June to 27<sup>th</sup> July,2018.

Under my guidance, they have submitted their summer internship project report titled as “**INVENTORY MANAGEMENT**” for the Computer & Information Technology (C&IT) Department, Steel Authority of India Limited (SAIL), LaxmiNagar, New Delhi in partial fulfilment of the degree of B.Tech. Information Technology from NORTHERN INDIA ENGINEERING COLLEGE NEW DELHI -110053. It is understood that by this approval, the undersigned do not necessarily endorse any conclusion drawn or opinion expressed therein, but approve the project for the purpose for which it is submitted.

We further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

## **Signature of the Project Guide**

Mr. Naveen Jain  
DGM(C&IT)

# ACKNOWLEDGEMENT

Industrial training is the phase of the activity during our Study in which we are expected to expand our creative thinking ability and to get the training of how to work in the industry and how all works are undertaken in the industry. It was a great pleasure working on analysis of inventory management. The presentation of this report gives us a feeling of fulfilment.

The activity of going through industrial orientation has bridged the gap between the academics and practical real life work. We would like to take this opportunity to acknowledge their support for us.

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of person whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.

I am thankful to **Mr.NAVEEN JAIN DGM (C&IT)** for allowing us to take training under his shelter in **STEEL AUTHORITY OF INDIA (SAIL)** and for guiding us throughout the project development.

I would like to thank **Ms. Renu singh, Deputy Manager (C&IT)** for taking part in useful decisions and giving necessary advice and guidance. We acknowledge her contribution gratefully.

We acknowledge a special thanks to them without whose support it was impossible for us to make the project report.

# ABSTRACT

Inventory management is a simple concept-don't have too much stock and don't have too little. Since there can be a substantial costs involved in staying above and below the optimal range, careful inventory management can make a huge difference in the right balance can be quite a complex and time consuming task without the right technology. Inventory management is very important for "STEEL AUTHORITY OF INDIA LTD". It enables the business to meet or exceed expectations of the customers by making the products readily available technologies used in the project are

## 1.PHP 7.2.8

PHP is a programming language for building dynamic, interactive Web sites. As a general rule,PHP programs run on a Web server, and serve Web pages to visitors on request. One of the key features of PHP is that you can embed PHP code within HTML Web pages, making it very easy for you to create dynamic content quickly.

## 2.XAMPP

**XAMPP** is a free and open source cross platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P).

# **TABLE OF CONTENTS**

## **1.COMPANY PROFILE**

1.1. INTRODUCTION

1.2. HISTORY

1.3. OPERATIONS

1.4. ROLE OF INFORMATION TECHNOLOGY IN SAIL

1.5. ACHIEVMENTS

## **2.INTRODUCTION TO INVENTORY MANAGEMENT SYSTEM**

## **3.PROPOSED SYSTEM**

3.1. FEATURES

3.2. TECHNOLOGIES USED

## **4.PROBLEM STATEMENT**

## **5.SCREENSHOTS**

5.1 LOGIN PAGE

5.2 REGISTRATION PAGE

5.3 MANAGER HOME

5.4 INVENTORY REGISTRY

**5.5 WARRANTY VALIDATION**

**5.6 COMPLAINT REGISTRATION BY EMPLOYEE**

**5.7 ENGINEER HOME**

**5.8 ALLOT TIME BY ENGINEER**

**5.9 COMPLAINT STATUS**

**5.10 PHP MYADMIN LOGIN PAGE**

**5.11 DATABASE OF USER**

**5.12 DATABASE OF INVENTORIES**

**5.13 ATABASE OF COMPLAINTS**

**6.CONCLUSION**

**7.BIBILOGRAPHY**

# 1. COMPANY PROFILE

## 1.1. Introduction

Steel Authority of India Limited (SAIL) is an Indian state-owned steel making company based in New Delhi, India. It is a public sector undertaking, owned and operated by the Government of India with an annual turnover of INR 44,452 Crore (US\$ 6.83 Billion) for fiscal year 2016-17. Incorporated on 24 January 1973, SAIL has 78,333 employees (as of 01-Jan-2018). With an annual production of 14.38 million metric tons, SAIL is the largest steel producer in India and one of the largest steel producers in the world. The Hot Metal production capacity of the Company will further increase and is expected to reach a level of 50 million tonnes per annum by 2025. Shri P.K Singh is the current Chairman of SAIL. As a part of its global ambition, the company is undergoing a massive expansion and modernization programme involving upgrading and building new facilities with emphasis on state of the art green technology.

According to a recent survey, SAIL is one of India's fastest growing Public Sector Units. Besides, it has R&D centre for Iron & Steel (RDCIS), Centre for Engineering and Technology (CET), Management Training Institute (MTI) and SAIL Safety Organisation (SSO) located at Ranchi capital of Jharkhand.

## 1.2. History

SAIL traces its origin to the Hindustan Steel Limited (HSL) which was set up on 19 January 1954. HSL was initially designed to manage only one plant that was coming up at Rourkela. For Bhilai and Durgapur Steel Plants, the preliminary work was done by the Iron and Steel Ministry. From April 1957, the supervision and control of these two steel plants were also transferred to Hindustan Steel. The registered office was originally in New Delhi. It moved to Calcutta in July 1956, and ultimately to Ranchi in December 1959. A new steel company, Bokaro Steel Limited (Bokaro Steel Plant), was incorporated on 29 January 1964 to construct and operate the steel plant at Bokaro. The 1 MT phases of Bhilai and Rourkela Steel Plants were completed by the end of December 1961. The 1 MT phase of Durgapur Steel Plant was completed in January 1962 after commissioning of the Wheel and Axle plant. The crude steel production of HSL went up from 1.58 MT (1959–60) to 1.6 MT. The second phase of Bhilai Steel Plant was completed in September 1967 after commissioning of the Wire Rod Mill. The last unit of the 1.8 MT phase of Rourkela – the Tandem Mill – was commissioned in February 1968, and the 1.6 MT stage of Durgapur Steel Plant was completed in August 1969 after commissioning of the Furnace in SMS. Thus, with the completion of the 2.5 MT stage at Bhilai, 1.8 MT at Rourkela and 1.6 MT at Durgapur, the total crude steel production capacity of HSL was raised to 3.7 MT in 1968–69 and subsequently to 4 MT in 1972–73. IISCO was taken over as a subsidiary in 1978 and later merged in 2006. The Ministry of Steel and Mines drafted a policy statement to evolve a new model for managing industry.

The policy statement was presented to the Parliament on 2 December 1972. On this basis the concept of creating a holding company to manage inputs and outputs under one roof was mooted. This led to the formation of The Steel Authority of India Ltd. The company, incorporated on 24 January 1973 with an authorised capital of ₹2,000 crore (US \$ 310 million), was made responsible for managing five integrated steel plants at Bhilai, Bokaro, Durgapur, Rourkela and Burnpur, the Alloy Steel Plant and the Salem Steel Plant. In 1978 SAIL was restructured as an operating company.

### **1.3. Operations**

As of 31-Mar-2015, SAIL has 93,352 employees, as compared to 170,368 (as of 31-Mar-2002). There has been a continuous reduction of headcount over the past few years due to enhanced productivity and rationalised manpower. The Government of India owns about 75% of SAIL's equity and retains voting control of the Company. However, SAIL, by virtue of its Maharatna status, enjoys significant operational and financial autonomy.

The total requirement of its main raw material, iron ore, is met through its captive mines. To meet its growing requirement, capacities of existing iron ore mines are being expanded and new iron ore mines are being developed. In addition, new iron ore deposits in the states of Rajasthan, Chhattisgarh, Madhya Pradesh, Maharashtra, Odisha and Karnataka are being explored. Around 24% of its coking coal requirements are met from domestic sources, the remaining through imports.

For improving coking coal security, the Company is also making efforts for development of new coking coal blocks at Tasra and Sitanalla. SAIL produced 13.9 million tonnes of crude steel by operating at 103% of its installed capacity, which is an increase of 1% over the previous year. It also generated 710 MW of electricity during FY2014-15.

### **1.4. Role of Information Technology in SAIL**

Although SAIL being a core steel manufacturing company has understood the importance of IT in advancement of its production capabilities. SAIL has involved various technological aspects in its operations as a company. SAIL also maintains a website for public view which can also be utilized for steel demand registration or for tender applications.

SAIL has been actively motivated to implement new functional systems to automate its operations. SAIL has undertaken an initiative to upgrade the existing IT infrastructure as well as applications by replacing it with latest state-of-art technology to meet current & future business needs. Under this initiative SAIL has already implemented SAP across four of its five integrated Steel plants and its marketing setup of Central Marketing Organization.

### **1.5. Achievements**



Everybody has recognized the performance of SAIL, including stakeholders, financial institutions, rating agencies and industry bodies. This has helped them win several awards in different fields across all financial years.

- "Best of all" Rajiv Gandhi National Quality Award in 1993, 2006, and 2007 for their Bhilai and Bokaro plants.
- Quality Summit New York Gold Trophy 2007 (International Award for Excellence & Business Prestige) and Award of Excellence Maintenance for Sumitomo Heavy Industry & TSUBKIMOTO-KOGIO, Japan won by Alloy Steel Plant, Durgapur.
- SAIL was featured in the 2008 list of Forbes Global 2000 companies at position 647.
- Genentech Safety Gold Award was given to Bhilai Steel Plant – 2010
- The HR Excellence Award by the Greentech Foundation won by Bhilai Steel Plant – 2010
- Award for financial and operational strength by Indian Institute of Industrial Engineering (IIIE)- 2009–10
- Maiden Wockhardt Shining Star CSR Award in the Iron & Steel Sector category – 2011.
- 74 of a total of 128 awardees who have won the prestigious Vishwakarma Rashtriya Puraskar (VRP) are from SAIL

## 2.INTRODUCTION

Inventory management is an important aspect of any successful business. It is the process of overseeing and **controlling the flow of inventory** units a business uses in the production or manufacture of goods for sale or distribution. Inventories are usually made up of a combination of goods, raw materials and finished products, and effective management of these items is essential to ensure optimal stock levels and to maximize the earning potential of the company. It also allows a business to prevent or mitigate any inventory-associated losses. Inventory management software is used by businesses for various reasons: it can track the costs of inventory throughout the manufacture and sales process, tell businesses when to replenish stock, and allow them to track profits. It can also be used to forecast inventory levels and prices, as well as expected product demand.

Effective inventory management is important as not only is inventory one of the most valuable assets to a business; there is a direct link between inventory levels and company profits. Inventory represents an investment that is tied up until either the item is sold, or it is used in the production of another item that is sold. Businesses are reliant on having items in stock; otherwise customers will simply go to a competitor who can provide what they want.

# 3.PROPOSED SYSTEM

## 3.1. FEATURES

- 1.We employed an easy yet low cost way to keep a database for containing the information of each and every product.
2. Also the application provides a simple and easy to use user interface so that even with a naïve user can operate the application.
- 3.The Employee can easily insert inventory to the database by registering a complaint against the defected item.
- 4.Manager can also see the list of all items present in the database with hand in information on the click of a button.
- 5.Engineer can allocate time for a visit to see the defected item.

## 3.2. Technologies Used

### a) PHP 7.2.8

PHP is a programming language for building dynamic, interactive Web sites. As a general rule,PHP programs run on a Web server, and serve Web pages to visitors on request. One of the keyfeatures of PHP is that you can embed PHP code within HTML Web pages, making it very easy for you to create dynamic content quickly.

### b) XAMPP

**XAMPP** is a free and open source cross platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server MariaDB database,and interpreters for scripts written in the PHP and Perl programming languages.XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P).

## 4.PROBLEM STATEMENT

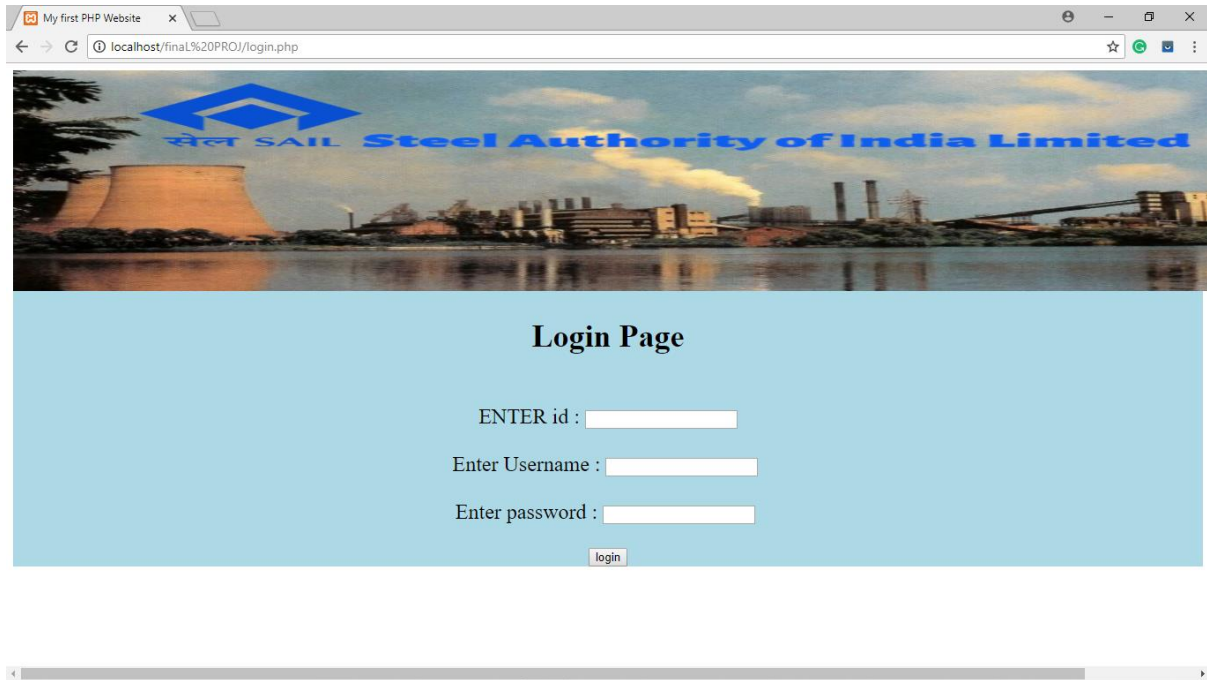
The problem selected to the analysis is “to study the effectiveness of inventory system” at STEEL AUTHORITY OF INDIA .The literary meaning of the word “Inventory” is stock of goods. Every enterprise needs inventory for smooth running of its activities. The unforeseen fluctuation in demand and supply of goods also necessitates the need for inventory. It also provides a cushion for future price fluctuations. The purpose of inventory management is to ensure availability of materials in sufficient quality and quantity as and when required and also to minimize investment in inventories. Thus it is very essential to have proper control and management of inventory.The inventory ensures operational smoothness. In almost all the organizations the substantial part of capital is invested in inventories. Usually, inventories constitute a major portion, about 60% of total current assets. Hence, management of inventory becomes crucial to the successful management of overall working capital of a business enterprise.The management of inventory is necessary for prevention of leakage, spoilage, deterioration, Obsolescence, wastage of materials. It aims at improving material handling, saving in material cost, increased production and large profits.

In our proposed system,

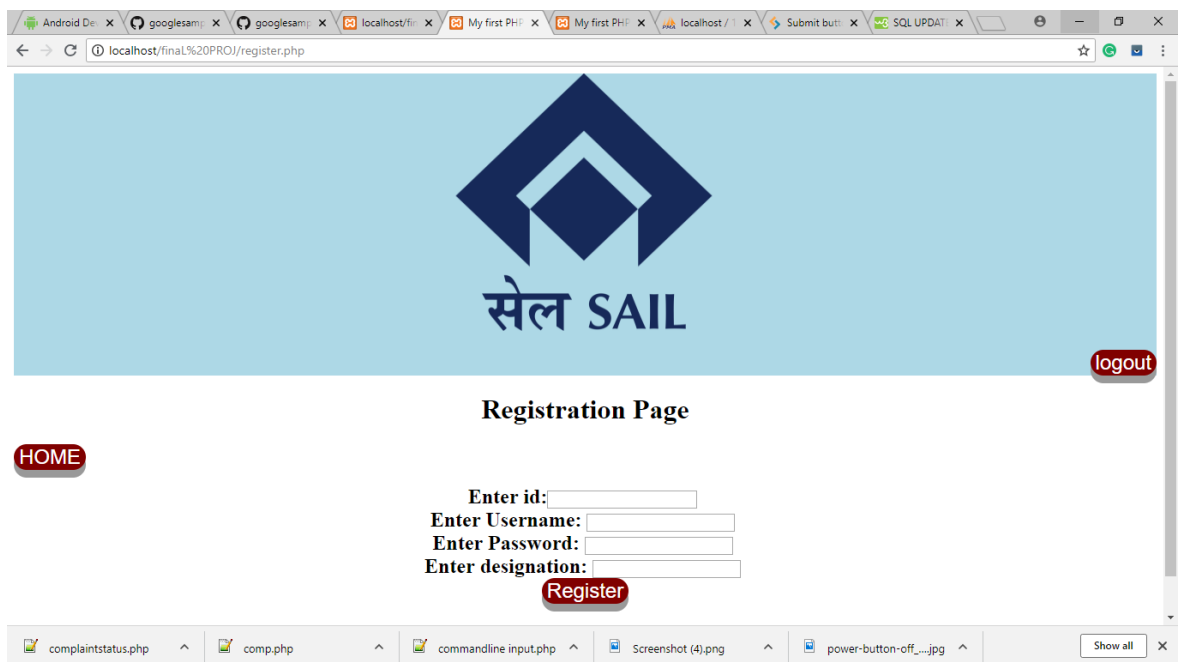
- 1.We would employ an easy yet low cost way to keep a database for containing the information of each and every product.
- 2.Also the application provides a simple and easy to use user interface so that even with a naïve user can operate the application.
- 3.The manager can easily insert,delete,update inventory from the database.
- 4.Manager can also see the list of all items present with hand in information on the click of a Button.

# 5. SCREENSHOTS

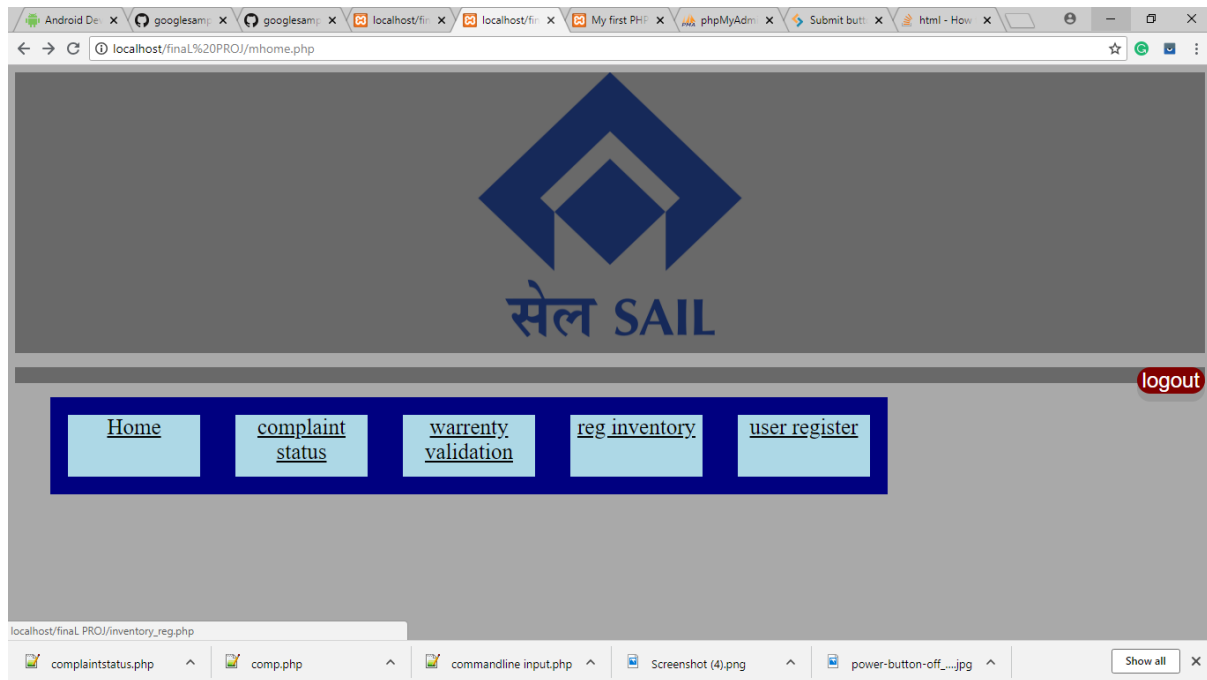
## 5.1 Login page



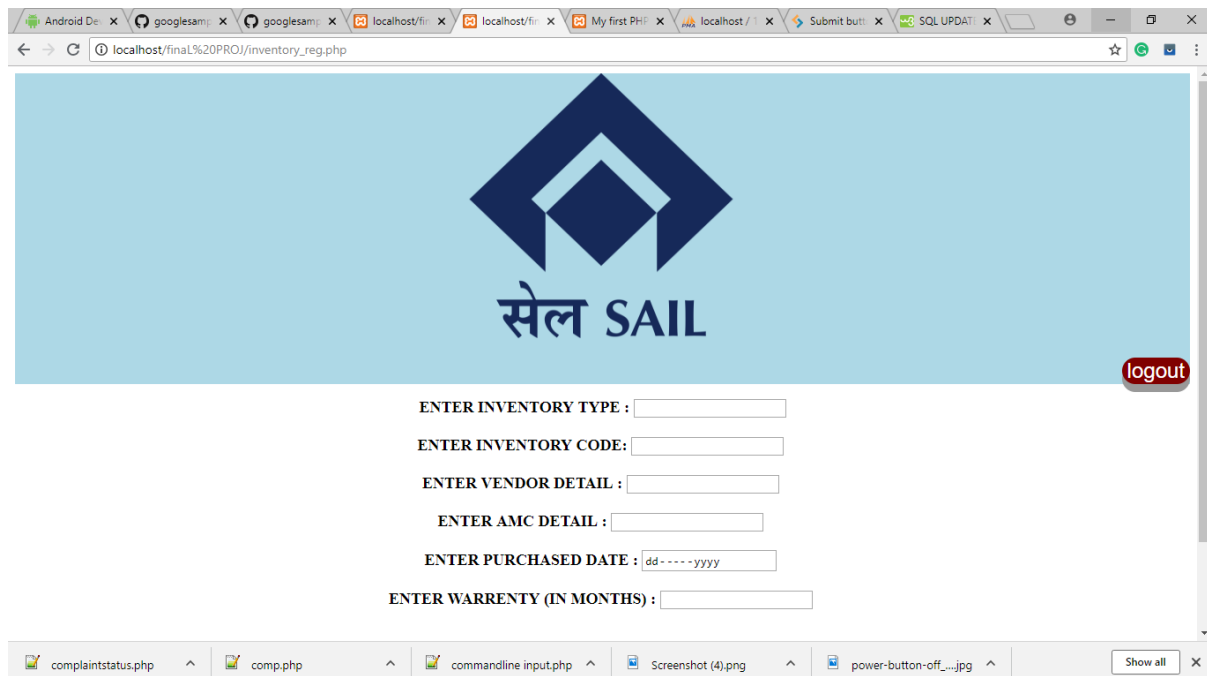
## 5.2 Registration Page



## 5.3 Manager Home Page




## 5.4 Inventory Registration



## 5.5 Warranty Validation

localhost/final%20PROJ/warranty\_validation.php

logout

ENTER INVENTORY CODE:


**Check Database**

vendor detail	amc detail	date of purchased	warrenty in months
ABC CO PVT LTD 9818321819	NULL	2018-12-31	.20

complaintstatus.php ^ comp.php ^ commandline input.php ^ Screenshot (4).png ^ power-button-off\_...jpg ^ Show all X

## 5.6 Complaint Registration by Employee

localhost/final%20PROJ/emhome.php

register inventorylogout

ENTER INVENTORY TYPE:

ENTER COMPLAINT DESC :

**register complaint**

**complaint status**

complaintstatus.php ^ comp.php ^ commandline input.php ^ Screenshot (4).png ^ power-button-off\_...jpg ^ Show all X

## 5.7 Engineer Home

localhost/final%20PROJ/enhome.php



logout

ALLOT TIME

inventory detail	complaint description
PRINTER	cartridge empty

inventory detail	complaint description
monitor	DISPLAY PROBLEM

inventory detail	complaint description
cpu	not working

complaintstatus.php ^ comp.php ^ commandline input.php ^ Screenshot (4).png ^ power-button-off\_...jpg ^ Show all x

## 5.8 Allotment Of Time by Engineer

localhost/final%20PROJ/enhomehelper.php

HOME

# ALLOT TIME

PRINTER ▾ --:--:--


submit

complaintstatus.php ^ comp.php ^ commandline input.php ^ Screenshot (4).png ^ power-button-off\_...jpg ^ Show all x



## 5.9 Complaint Status

Notice: Undefined index: user2 in E:\xampp\htdocs\final PROJ\complaintstatus.php on line 4



logout

inventory detail	complaint description	time
PRINTER	cartridge empty	12:59:00


  

inventory detail	complaint description	time
monitor	DISPLAY PROBLEM	12:58:00

complaintstatus.php   comp.php   commandline input.php   Screenshot (4).png   power-button-off\_...jpg   Show all

## 5.10 PHP My Admin Login Page

phpMyAdmin   bhairiye sari files h inka p...   localhost/phpmyadmin/index.php



Welcome to phpMyAdmin

Language  
English

Log in

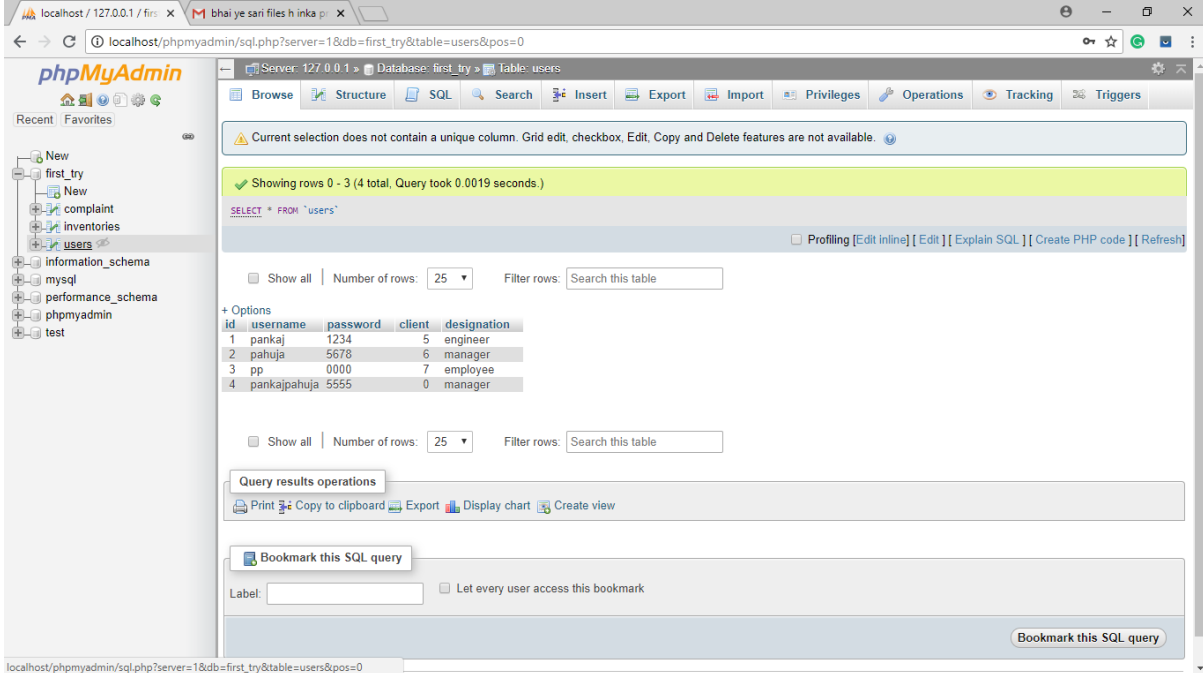
Username: root

Password:

Go

Type here to search   8:17 AM 26-Jul-18

## 5.11 Database Of User

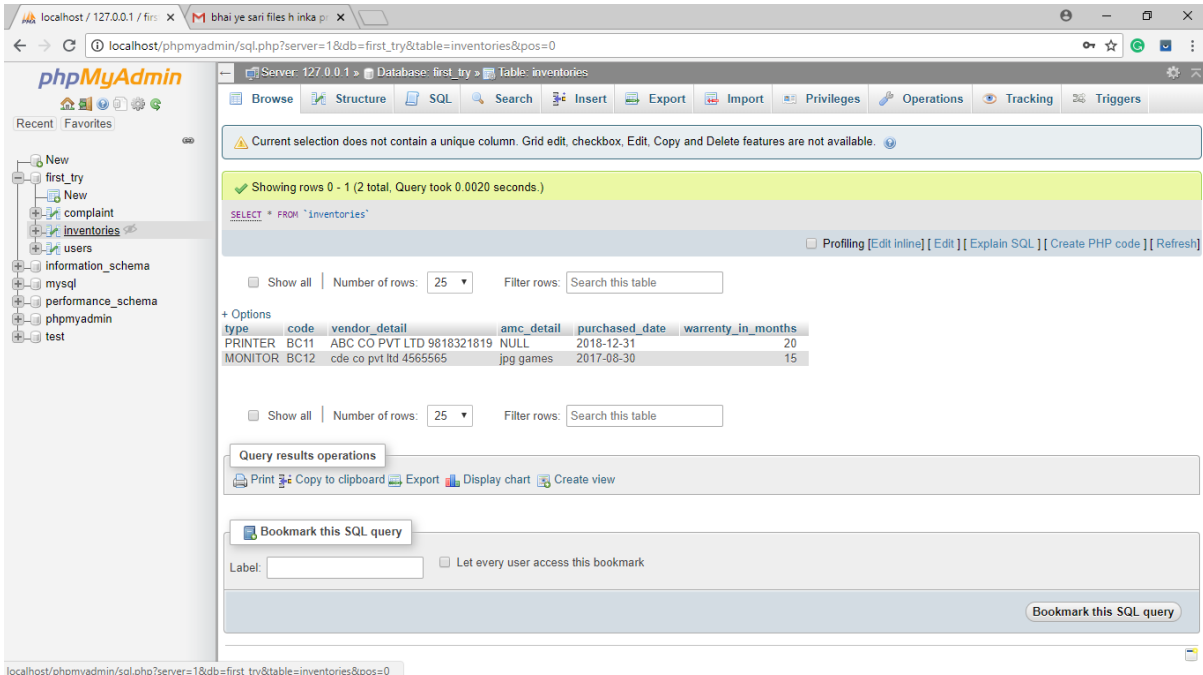


The screenshot shows the phpMyAdmin interface for the 'first\_try' database. The 'users' table is selected, and the SQL query 'SELECT \* FROM `users`' is executed. The results show 4 rows of user data.

id	username	password	client	designation
1	pankaj	1234	5	engineer
2	pahuja	5678	6	manager
3	pp	0000	7	employee
4	pankajpahuja	5555	0	manager

Its function is to store the **Username, ID, Designation** and **Password** of the users registered.

## 5.12 Inventories Database



The screenshot shows the phpMyAdmin interface for the 'first\_try' database. The 'inventories' table is selected, and the SQL query 'SELECT \* FROM `inventories`' is executed. The results show 2 rows of inventory data.

type	code	vendor_detail	amc_detail	purchased_date	warranty_in_months
PRINTER	BC11	ABC CO PVT LTD 9818321819	NULL	2018-12-31	20
MONITOR	BC12	cde co pvt ltd 4565565	jpg games	2017-08-30	15

## 5.13 Complaint Database

localhost / 127.0.0.1 / first\_try

localhost/phpmyadmin/sql.php?server=1&db=first\_try&table=complaint&pos=0

Server: 127.0.0.1 » Database: first\_try » Table: complaint

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0020 seconds)

SELECT \* FROM `complaint`

Profiling [Edit Inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

+ Options

inventory	description	time
PRINTER	cartridge empty	12:59:00
monitor	DISPLAY PROBLEM	12:58:00
cpu	not working	23:58:00

Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label:  ☐ Let every user access this bookmark

Bookmark this SQL query

localhost/phpmyadmin/sql.php?server=1&db=first\_try&table=complaint&pos=0

## **Conclusion**

Time and money are one of the most important factors to any organization. Implementing such software in any department can surely be a profitable deal as this application helps to carry out tasks with ease and thereby reduces time and money on man power and materials. This is an open source application so that others can edit and Transform this system application according to their needs.

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