

1. Creating an individual page for displaying the information about the product like product name, product description, product image, giving option for downloading/viewing the product documentation as well as the option for sending an inquiry for the product. Any category's product page contains list of products and if any user wants to get more information about them he/she can click on the icons displayed on the image itself and it will take them to the productInfo page where the information will be displayed. This is achieved by passing the selected product's product code and by creating a session variable for the same and all the product information related to that particular session variable will be displayed on the productInfo page. This is applied for all the other products in the system.

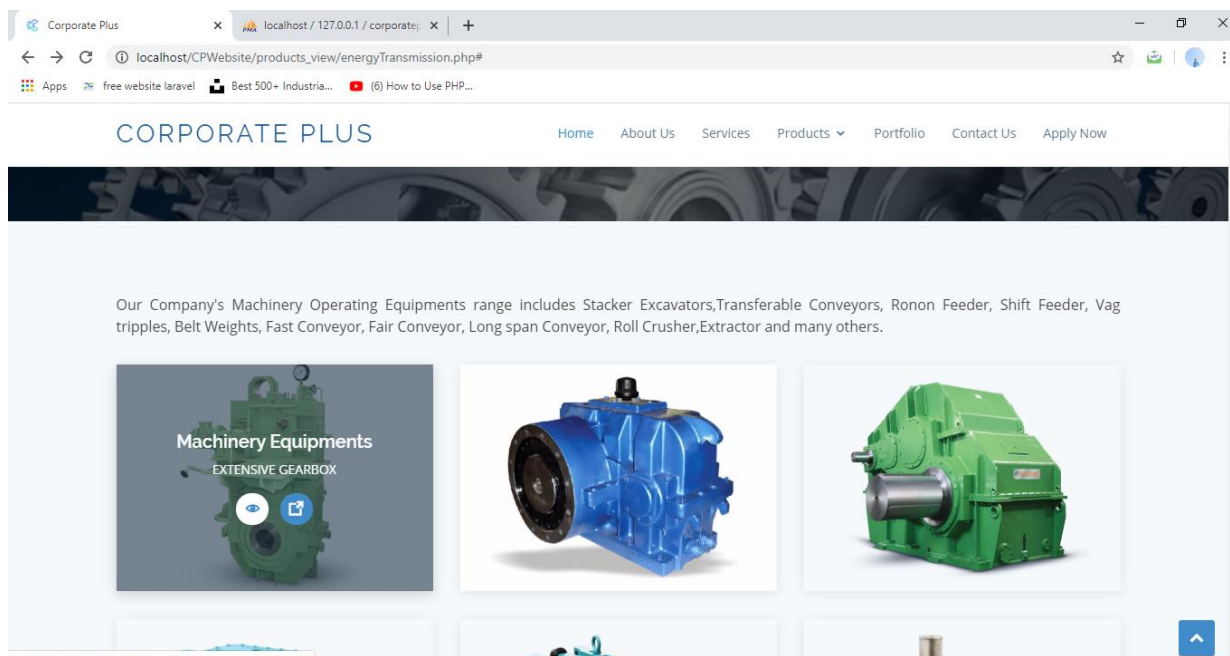


Fig 14.1 Selecting any product

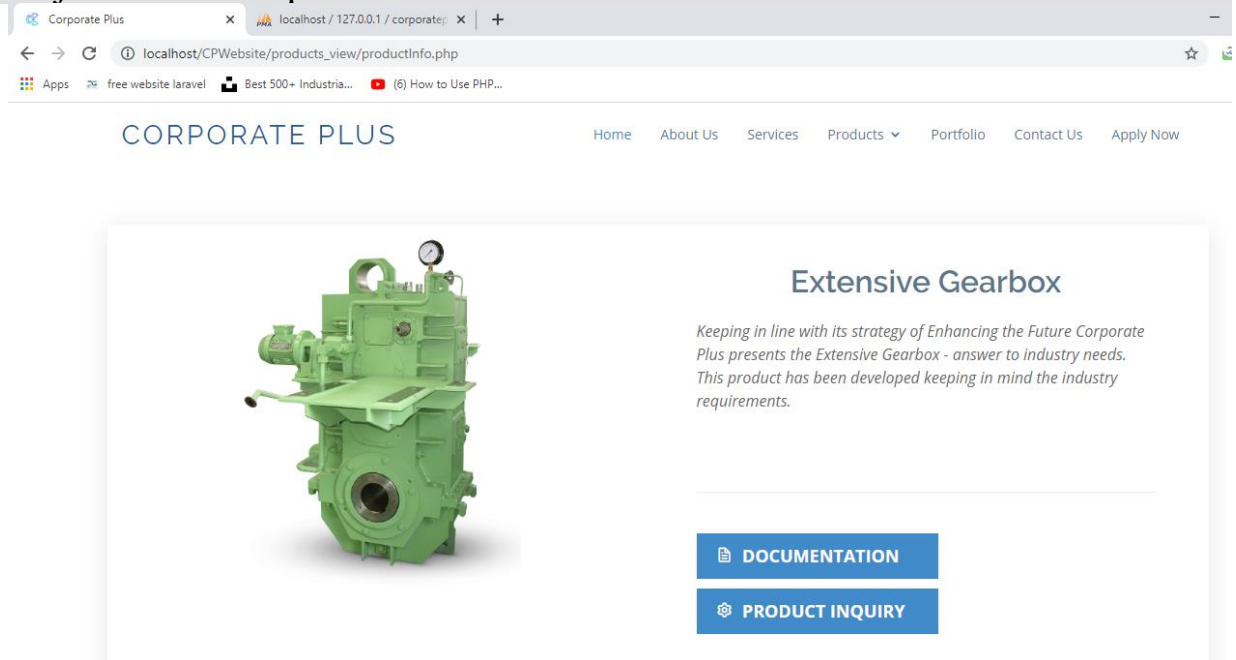


Fig 14.2 Product Info page for that particular product

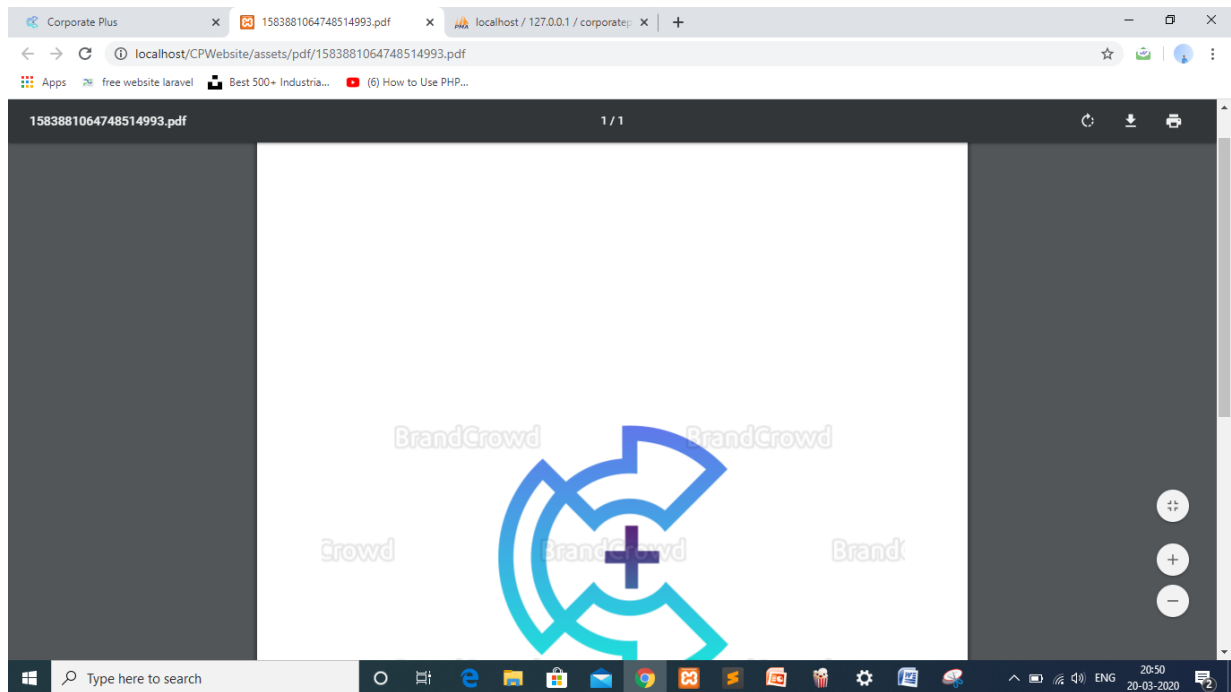
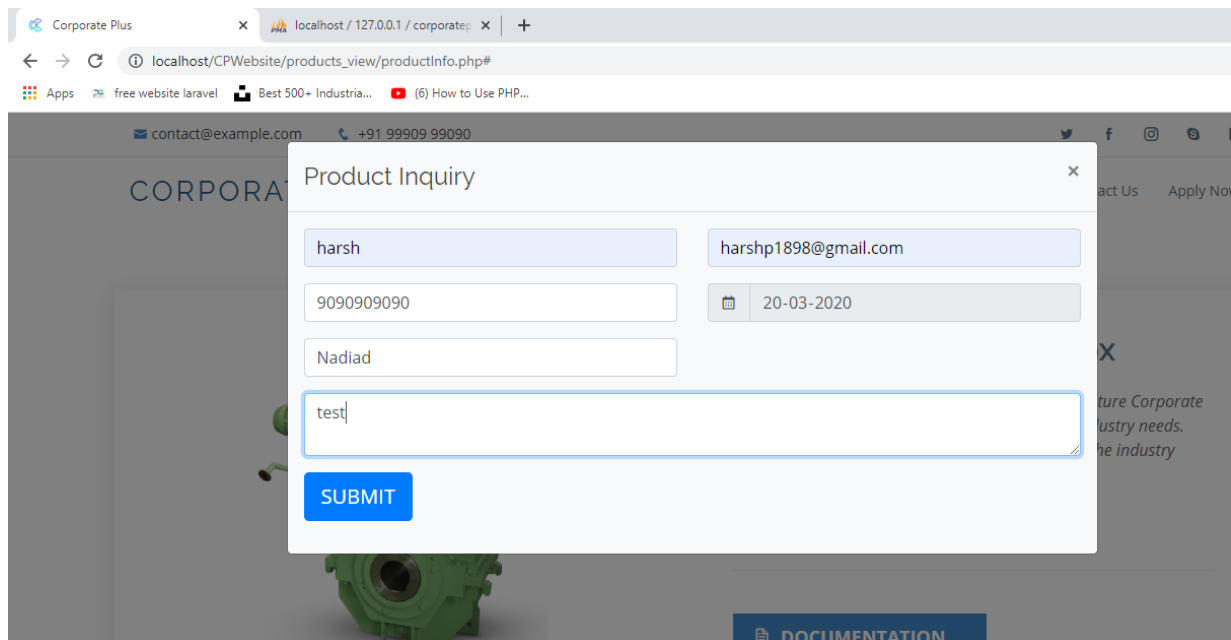


Fig 14.3 Viewing/Downloading Product Documentation

2. Creating the functionality of inquiring about any product through a form which is designed in modal, the required details in the form like name, email, state, phone number and the query are to be filled up, whereas the date will be fetched dynamically and when submitting all this data by the modal in one hidden field the product code of the inquired product is sent so at the time of entry in the database the field for product_name for whom the inquiry is done will be filled automatically. Further on through the ERP system the admin or the respective sales manager can allocate the inquiry to any other user in the system.



The screenshot displays a web browser window with the URL `localhost/CPWebsite/products_view/productInfo.php#`. A modal titled "Product Inquiry" is open, featuring several input fields and a "SUBMIT" button. The fields contain the following data:

Field	Value
Name	harsh
Email	harshp1898@gmail.com
Phone Number	9090909090
Date	20-03-2020
State	Nadiad
Query	test

The background of the web application shows a header with "CORPORATE PLUS" and a footer with a "DOCUMENTATION" link.

Fig 14.4 Product Inquiry

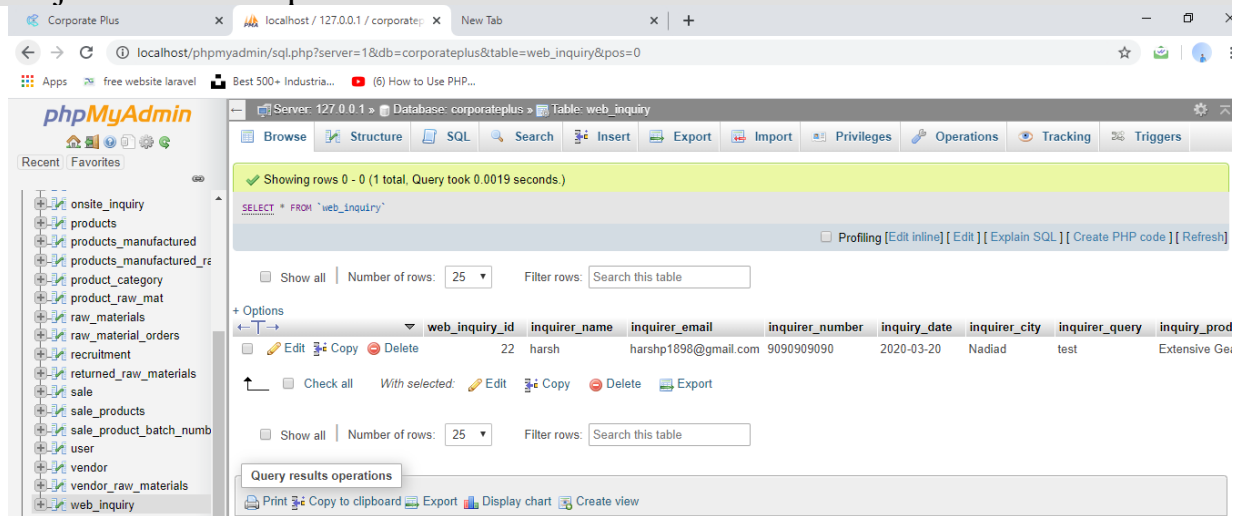


Fig 14.5 Entry in the web inquiry table

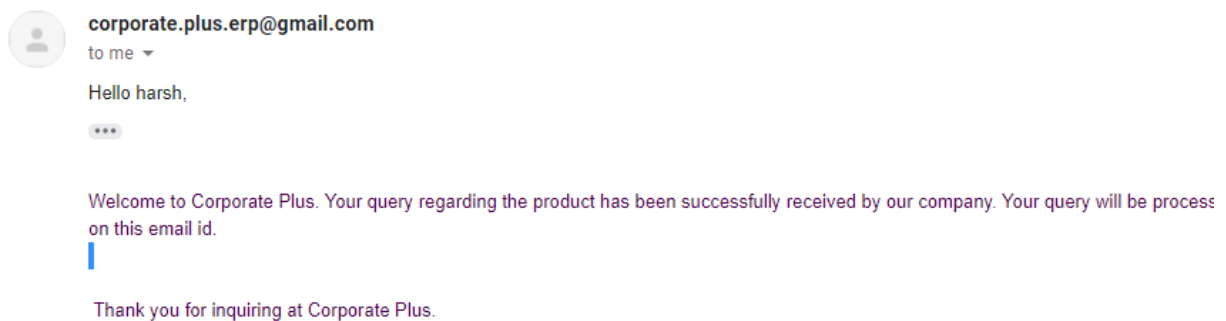


Fig 14.6 Mail to the user who inquired about the product

3. Designing of Add Sale page, using which new sale entry can be added to the system. This page is made really smart one. Apart from simply taking customer information like name, email, phone and address, it has a dual list, from which the user(sales manager) can select the products user is interested in. Initially the submit button of the page is not present. Now, once selecting the products and pressing next (arrow) button, list of the selected products will be shown down and next to it a drop-down will be there allowing user to select the quantity of the product to be bought. These drop-box quantities are also dynamic as per the product stock. Now if any of the product from the selected one are not at all in the stock, the submit button will not show up. Similarly we have kept other button to view the estimate cost of the selected quantities of products, which will also be shown only when all the selected products are in stock. (16IT139)

Add New Sale[Home](#) / [Sales](#) / [Add New Sale](#)

New Sale

Invoice Number
00000005

Customer Name
Enter Customer Name

Customer Email Address
Enter Customer Email Address

Customer Phone Number
Enter Customer Phone Number

Products
Select Products To Be Bought:
Showing all 63
Filter
>>
190 Holder Loader
30D Croker Loader
70E Croker Loader
789Q LoadHaul Dumper
890 CoalApp Dumper
Empty list
Filter
<<

Discount (%)
0

Customer (Delivery) Address
Enter delivery address

Pin Code
Enter Pin Code

City
Enter City Name

Select State
Andhra Pradesh

Date of sale
20-03-2020

Fig 14.7 Add New Sale Page

Select Products To Be Bought:

Showing all 60

Filter

>>

190 Holder Loader
70E Croker Loader
890 CoalApp Dumper
900 Side Dumper
901 Loading Dumper

Showing all 3

Filter

<<

30D Croker Loader
789Q LoadHaul Dumper
Belt Weights

➔

Select Quantities of the Products

30D Croker Loader :

OUT OF STOCK

789Q LoadHaul Dumper :

OUT OF STOCK

Belt Weights :

OUT OF STOCK

Fig 14.8 On selecting products out of stock (submit and view net cost buttons disabled)

Select Products To Be Bought:

Filtered 0 from 61

show all

bolt

>>

Showing all 2

Filter

<<

Bolt Elevation
Extractor

➔

Select Quantities of the Products

Bolt Elevation :

1

Extractor :

1

View Net Cost

Fig 14.9 On selecting products in stock (submit and view net cost buttons shown)

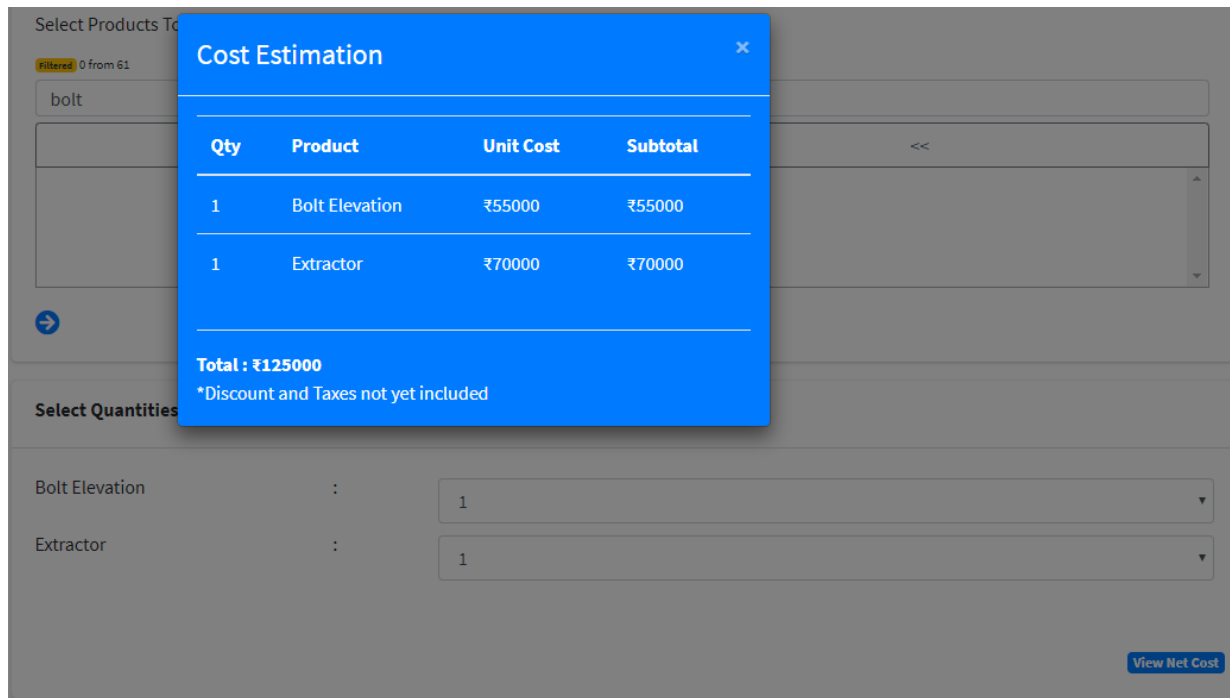


Fig 14.10 Modal popped up on clicking view net cost

Now if everything is set, user will be allowed to submit the form and add the entry in the database. Doing this, there will be deduction of the product quantities from the actual stock accordingly, as well as the products with actual batch-numbers which are sold gets the tag of SOLD in manufactured products list.

Database schema for sales entry is in 3 tiers. First (master) table is sales, which contains all the basic information of the customer and the invoice number and sale_id is set as primary key. On the second tier, we have a sale_product entry, which will contain the products and quantities corresponding to the sale entry. And the last table, sale_product_batch_numbers is for specifying the batch numbers of each individual quantity of each selected product, i.e. their manufacturing details. (16IT139)

Server: 127.0.0.1 » Database: corporateplus » Table: sale

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	sale_id	int(10)			No	None		AUTO_INCREMENT
2	invoice_number	varchar(10)	latin1_swedish_ci		No	None		
3	sale_date	date			No	None		
4	percentage_discount	int(10)			No	None		
5	customer_name	varchar(50)	latin1_swedish_ci		No	None		
6	customer_email	varchar(50)	latin1_swedish_ci		No	None		
7	customer_number	varchar(50)	latin1_swedish_ci		No	None		
8	delivery_address	varchar(5000)	latin1_swedish_ci		No	None		
9	delivery_city	varchar(50)	latin1_swedish_ci		No	None		
10	delivery_pin_code	int(10)			No	None		
11	delivery_state	varchar(50)	latin1_swedish_ci		No	None		
12	seller_id	int(10)			No	None		

Fig 14.11 sale table schema

Server: 127.0.0.1 » Database: corporateplus » Table: sale_products

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	sale_product_id	int(10)			No	None		AUTO_INCREMENT
2	sale_id	int(10)			No	None		
3	product_id	int(10)			No	None		
4	quantity	int(10)			No	None		
5	unit_cost	int(10)			No	None		

Fig 14.12 sale_products table schema

Server: 127.0.0.1 » Database: corporateplus » Table: sale_product_batch_numbers

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	unique_id	int(10)			No	None		AUTO_INCREMENT
2	sale_product_id	int(10)			No	None		
3	product_manufacture_id	int(10)			No	None		

Fig 14.13 sale_product_batch_numbers table schema

4. The sales page will show all the sales entry till date, in the order from most recent to the old ones. Now these entries have long and extensive information associated to it, which was not able to show in the table. So a 'view more' button next to each entry is kept and pressing it will lead to a new page, sale description, which has the complete details of the sale. In the first half, details of customer are shown and in the later half, summary of sale is shown including invoice number, sale date, seller information, bought item and the cost calculations. Bought items here are shown along with the quantity and their unique batch numbers. Clicking the product name will pop up a modal showing complete description of product. Similarly clicking Batch number will show the complete manufacturing details of that product. (16IT139)

List of Sales							
Sale Date	Invoice Number	Customer Name	Email	Contact Number	Seller	Invoice	View More
18 Mar, 2020	00000004	Rajat Kumar	rajatk99@gmail.com	988557854	USR00001		
18 Mar, 2020	00000003	Chaggan Patel	c.patel@gmail.com	8877569898	USR00001		
18 Mar, 2020	00000002	Rahul Tiwari	rahulbt2016@gmail.com	9924483264	USR00001		
16 Mar, 2020	00000001	Rahul Tiwari	rahulbt2016@gmail.com	9924483264	USR00001		

Fig 14.14 Sales list page

Sale Description

[Home](#) /
 [Sales](#) /
 Sale Description

Customer Details					
Name	:	Rajat Kumar			
Email	:	rajatk99@gmail.com			
Contact Number	:	9888557854			
Delivery Address	:	12, Junaid Colony, Faisal Road Valsad - 365887 Gujarat			

Sale Summary					
Invoice Number	:	00000004			
Sale Date	:	18 Mar, 2020			
Seller	:	Rahul Tiwari - USR00001			

Bought Items	:	Qty	Product	Unit Cost	Batch Numbers	Sub-total
		2	190 Holder Loader	₹300000	0000000005 0000000007	₹600000
		1	70E Croker Loader	₹140000	0000000008	₹140000

Total Cost Calculations	:	Sub-total	:	₹740000
		Discount (10%)	:	- ₹74000
		GST (18%)	:	119880
		Total	:	₹785880

Fig 14.15 Sales Description page opened on clicking view more

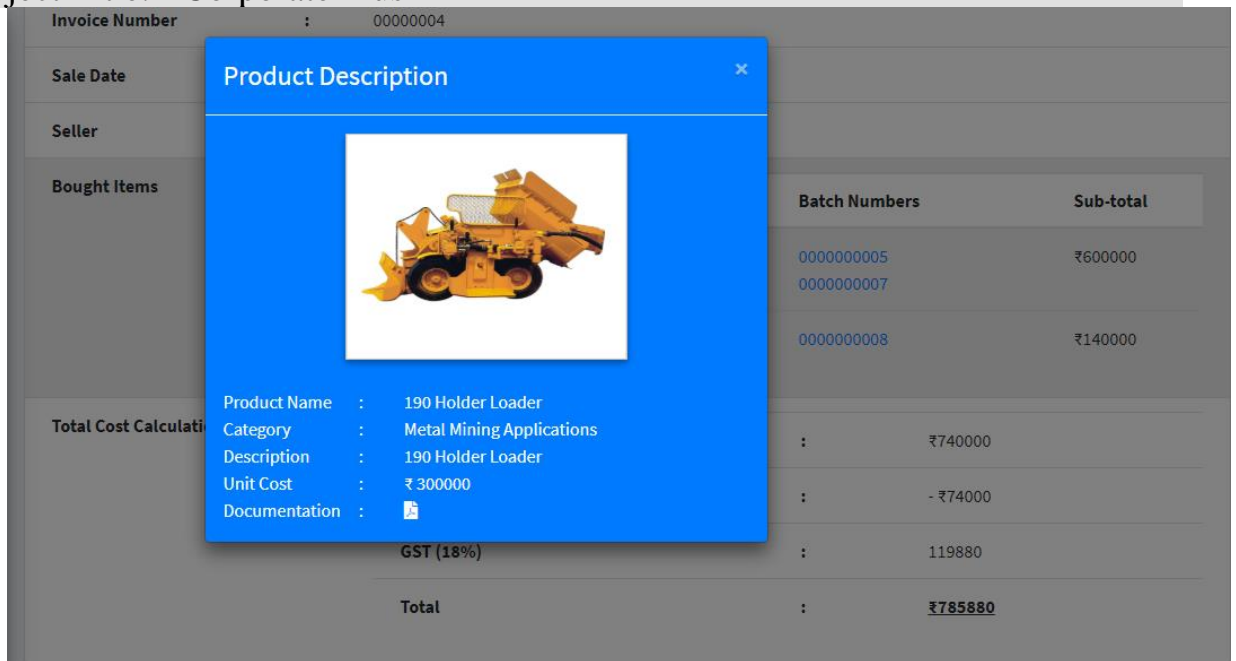


Fig 14.16 Product description modal popped on clicking product name

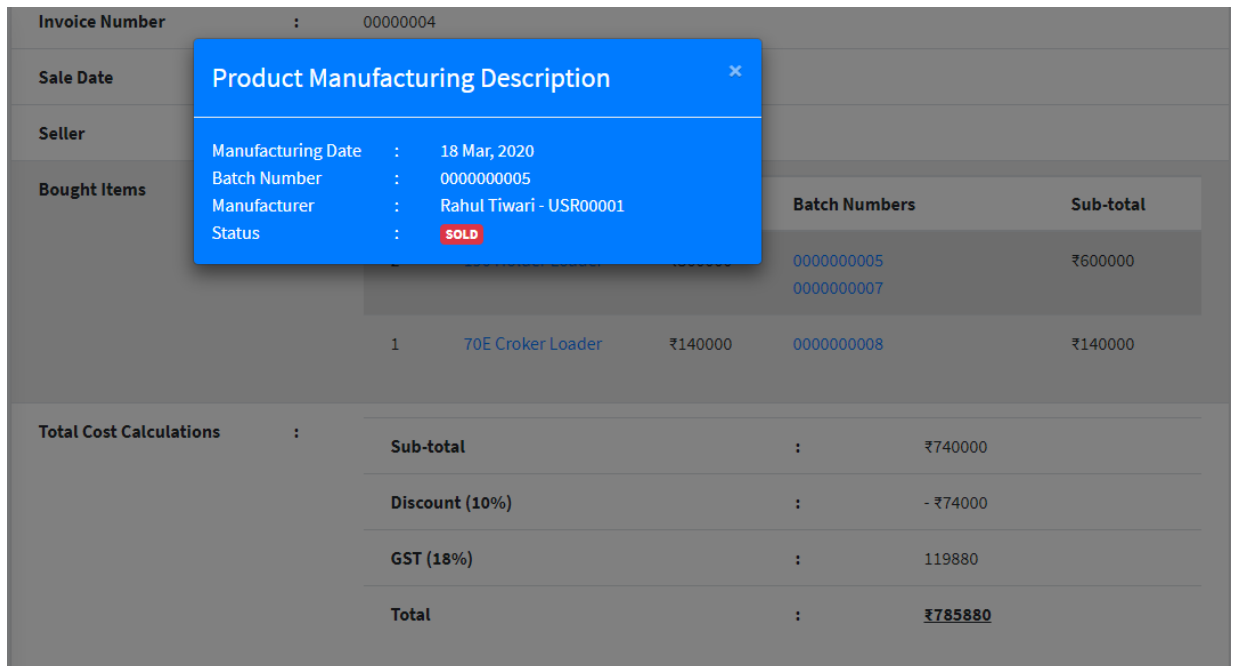



Fig 14.17 Product manufacturing description modal popped on clicking batch number

5. In the sales page, there is also a feature to download the invoice of the sale entry. Best thing about this is, we are not storing these invoices of individual customers in the server, instead we are generating the invoice using the coding and data from the database tables, and later on this page can be printed clicking the provided button below the invoice. Also the printing part of the invoice is specified using code, excluding header, footer and side panel. (16IT139)

Show Invoice
[Home](#) / [Sales](#) / [Show Invoice](#)


Corporate Plus Pvt. Ltd.




Date: 18 Mar, 2020

From
Corporate Plus Pvt. Ltd.
Anand Sojitra Road
Anand - 388120, Gujarat
Phone: 9900998877
Email: corporate.plus.erp@gmail.com

To
Rajat Kumar
12, Junaid Colony, Faisal Road
Valsad - 365887, Gujarat
Phone: 9888557854
Email: rajatk99@gmail.com

Invoice #00000004

Qty	Product	Unit Cost	Batch Numbers	Subtotal
2	190 Holder Loader	₹300000	0000000005 0000000007	₹600000
1	70E Croker Loader	₹140000	0000000008	₹140000

Payment Methods:




Subtotal	:	₹740000
Discount (10%)	:	- ₹74000
GST (18%)	:	119880
Total	:	₹785880



 Print

Fig 14.18 Show Invoice Page



Corporate Plus Pvt. Ltd.

From: Corporate Plus Pvt. Ltd.
Anand Srijitra Road
Anand - 388120, Gujarat
Phone: 9900998877
Email: corporate_plus_erp@gmail.com


To: Rajat Kumar
12, Junaif Colony, Faisal Road
Valad - 385887, Gujarat
Phone: 988551954
Email: rajat19@gmail.com

Invoice #00000004

Date: 18 Mar, 2020


Qty	Product	Unit Cost	Batch Numbers	Subtotal
2	190 Holder Loader	₹300000	0000000005 0000000007	₹600000
1	TSE Cracker Loader	₹140000	0000000008	₹140000

Payment Methods:



Subtotal	₹	₹740000
Discount (10%)	₹	- ₹74000
GST (18%)	₹	₹133200
Total	₹	₹798800

Print 1 page

Destination  Save as PDF

Pages All

Pages per sheet 1

Margins Default

Options ☐ Background graphics

Save Cancel

Fig 14.19 Print dialogue-box on clicking print button

- Minor change was made in Manufactured Products list. A new column was added here, Sale description. The products which are not yet sold won't have any sale description, but the one which are sold will have and icon, clicking which, will lead to a new page giving the sale summary of that manufactured product. Now this feature (sale description column) will only be visible to the user, if they have access to the sale related pages. (16IT139)

Manufactured Products

[Home](#) / [Manufactured Products](#)

List of Manufactured Products						
Product	Mfg. Date	Batch Number	Manufactured By	Raw Materials' Quantities Used	Status	Sale Description
Bolt Elevation	18 Mar, 2020	0000000011	USR00001		AVAILABLE	-
Extractor	18 Mar, 2020	0000000010	USR00001		AVAILABLE	-
Extractor	18 Mar, 2020	0000000009	USR00001		AVAILABLE	-
70E Coker Loader	18 Mar, 2020	0000000008	USR00001		SOLD	
190 Holder Loader	18 Mar, 2020	0000000007	USR00001		SOLD	
Bolt Elevation	18 Mar, 2020	0000000006	USR00001		SOLD	
190 Holder Loader	18 Mar, 2020	0000000005	USR00001		SOLD	

Fig 14.20 Manufactured Products page with newly added (Sale Description) column

[Home](#) / [Manufactured Products](#) / [Sale Description](#)

Customer Details

Name	:	Rajat Kumar
Email	:	rajatk99@gmail.com
Contact Number	:	9888557854
Delivery Address	:	12, Junaid Colony, Faisal Road Valsad - 365887 Gujarat

Sale Summary

Invoice Number	:	00000004
Sale Date	:	18 Mar, 2020
Seller	:	Rahul Tiwari - USR00001

Fig 14.21 Sale Description Page

7. In the page of available applicants, the amount of information of an applicant is high. Previously in this page, too much information made the page look shabby. Therefore, to make it less congested bootstrap modal was added to the page where all the applicant's details can be viewed smoothly in a modal pop-up. (16IT013)

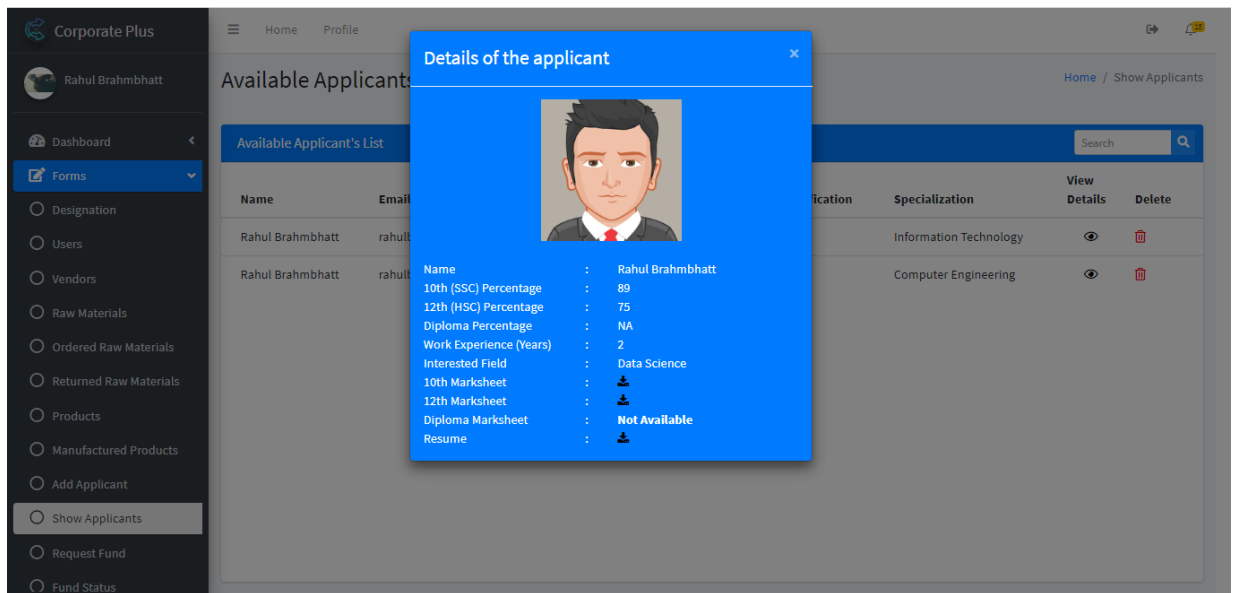


Fig 14.22 Available Applicants Page (Modified)

8. In the previous week, the on-site inquiry for the sales department was completed till the page where a sales person can take the follow-up of the customer. Now, taking that further this page of Customers (On Site) displays the list of people who have been confirmed as a customer by the sales department on a successful completion of a follow-up and sell of a product/(s) for which they inquired. (16IT013)

Name	Email	Contact Number	Product Name	Inquiry Date	Follow Up Date	Follow Up Comments	Follow Up Taken By
ram kumar	rk99@gmail.com	7698453210	Planetary Gearbox	2020-03-18	2020-03-18	Product Buying success	2
ram kumar	rk99@gmail.com	7698453210	Planetary Gearbox	2020-03-18	2020-03-18	test 3	USR00002 - Rahul Brahmhatt

Fig 14.23 Customers (On-site) page.

9. In the case where there is a defect in the product that was manufactured by the company, there needs to be a service department which works on maintenance and service of the products that are sold to the customer. Thus, a page to return the product/ request a service for the product has been created where the details such as an invoice number, customer's name, product name, quantity, etc. are taken to request a service for that product. Then, there is a page called 'Returned Products' which displays the list of products that have been returned with a function to take the service. (16IT013)

HomeProfile

Request Service

Home / Return Product

Request service for a product

Invoice Number

CP00001

Customer Name

Suresh

Customer Email Address

skr0348@gmail.com

Customer Phone Number

9876543210

Choose Product

Planetary Gearbox

Product Code

PRD00003

Select Quantity

1

Purchase Date

03/10/2020

Reason for returning product

Not working.

Return Date

03/19/2020

Product Returned To

USR00002 - Rahul Brahmhatt

Submit

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hp

Fig 14.24 Return Product/Request Service page.

Invoice Number	Customer Name	Product Name	Product Code	Product Quantity	Purchase Date	Return Reason	Return Date	Service	Delete
CP00001	Suresh	Planetary Gearbox	PRD00003	1	2020-03-10	Not Working	2020-03-19		

Fig 14.24 Returned Products page.

- Now, on clicking the service icon, a new page called 'Product Service' will be opened (if user is having the access). This page is not shown in the left navigation panel, rather it is made available when service icon corresponding to a product is clicked so that redundancy can be reduced and the system can be made simpler. The path to this page is Home/Products Returned/Product Service. Also, the database for follow up is made so simple using the 'return_id' of return_product table as a foreign key and 'service_id' of product_service as a primary key. The page has additional fields like service date, summary of the product service, and an option to either return the product once it has been serviced or replace the product if it can't be serviced. (16IT013)

HomeProfile

Home / Products Returned / Product Service

Invoice Number

CP00001

Person Name

Suresh

Product Name

Planetary Gearbox

Product Code

PRD00003

Product Quantity

1

Purchase Date

2020-03-10

Return Date

2020-03-19

Service Taker

USR00002 - Rahul Brahmhatt

Service Date

03/19/2020

Summary of Product Service

test

Return Serviced Product?

Yes

Replace with a New Product?

No

Save

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Fig 14.25 Product Service page.

SELECT * FROM 'product_service'

Number of rows: 25 Filter rows: Search this table

service_id	return_id	service_taker	summary	return_prd	replace_prd	service_date
4	5	USR00002 - Rahul Brahmhatt	test	Yes	No	2020-03-19

Number of rows: 25 Filter rows: Search this table

Fig 14.26 product_service database.

11. Creating a page called 'Serviced Products' which will keep the record of the products that have been serviced by the service department of the company and returned to the customer upon a successful service completion of the product. Here, the list will contain only the products that have been serviced and not replaced. (16IT013)

Serviced Products

Serviced Products List

Invoice Number	Customer Name	Product Name	Product Code	Purchase Date	Return Date	Return Reason	Service Date	Service Summary	Service Taken By
CP00001	Suresh	Planetary Gearbox	PRD00003	2020-03-10	2020-03-19	Not Working	2020-03-19	test	USR00002 - Rahul Brahmhatt

Serviced Products

Serviced Products List

Customer Name	Product Name	Product Code	Purchase Date	Return Date	Return Reason	Service Date	Service Summary	Service Taken By
h	Planetary Gearbox	PRD00003	2020-03-10	2020-03-19	Not Working	2020-03-19	test	USR00002 - Rahul Brahmhatt

Fig 14.27 Serviced Products page.