



PHP Case Study

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ORIENTAL BEARINGS



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➤ **Application Background**

- Creating web based inventory management application to manage inventory of Oriental Bearings.
- Business Engagement Model.
- Generating different types of reports examples include – payment, work order, dispatch etc.
- Billing.

➤ **Client Profile**

The client was a manufacturing industry veteran who was a mechanical engineer in India and was looking for a solution that could simplify his manufacturing company's inventory process. The challenges were to:

- Analyze and set all his production processes, keep track of inventory inward-outward process, payments & reporting etc.
- Build a complete billing solution.

➤ **Business Need**

The client was looking to develop a web application using PHP (CodeIgniter framework), HTML5, Ajax, CSS3, Bootstrap3, JQuery and MySQL as backend.

The features they were looking for were:

- A system should keep track of all of the work orders (pending & completed) involved into the entire manufacturing process.
- A system should generate following reports on monthly basis.
 - a. Work order report.
 - b. Payments & collections report.
 - c. Billing report.
 - d. Work order dispatch report.
 - e. Work order rejection report.
 - f. Work order pending report.
- A complete, specified dashboard. The dashboard consisting of the features with which users can easily figure out how many orders are completed or pending and to be able to decide if the company is getting the best returns on their investments.



- Detailed invoicing and billing.
- Users should be able to add, edit and delete work orders and vendor information.
- A system should manage multiple levels of users.
- Assign different roles to various users.
- Bill generation system for specific work orders.

➤ **Challenges**

- **Browser Compatibility:** The application had to run on iPad as well as table top computers, so we needed it to design in a way so that it can run on IE, Fire fox, Chrome and Safari.
- Report generation for various tasks involved in the process.
- Track the invoice according to different records and maintain thousands of materials and generate a unique number.
- Generate work order numbers on monthly basis and synchronize with their invoice numbers.
- **Complete Client Side Operations:** The client required all the processes at the client side, there were large no of operations which all needed to be performed through the client side scripts.

➤ **Solution Features**

- We used technologies like JQuery, Ajax & Java-Script with pure HTML5 design for achieving browser compatibility.
- We used PHP CodeIgniter (MVC) framework to achieve complex inventory system challenges.
- And system was highly maintainable.
- We used Web-Service Layer architecture to achieve the need of client side operations for responsive design.
- For designing reports, we used bootstrap3 and css3.



➤ **Benefits**

- The client was able use the application from any browser or any device as he was looking for.
- The client was able to use most of the features of the application including graphics operations very efficiently without facing any issues like page load issues and similar.
- Application was designed in a way that, it can be extended easily in the future anytime the client wish to do so.
- We achieved a great level of client satisfaction, by meeting his needs as we do it with each and every client of Dogra Technologies.

➤ **Technology Used**

- PHP 7.0
- CodeIgniter (MVC framework)
- JQuery 1.11.1
- Bootstrap 3.3.3
- CSS3
- HTML 5
- MySql 5.7
- Various online & offline tools for rapid development of XML & XSLT, Java-script & JQuery & CSS Designs.



Feature1

- All the boxes display their quantities.
- Following are some of the glimpses of the work orders, parts, vendors, transport and other parameters involved.
- If you click on the boxes, it will take you to their respective tables.

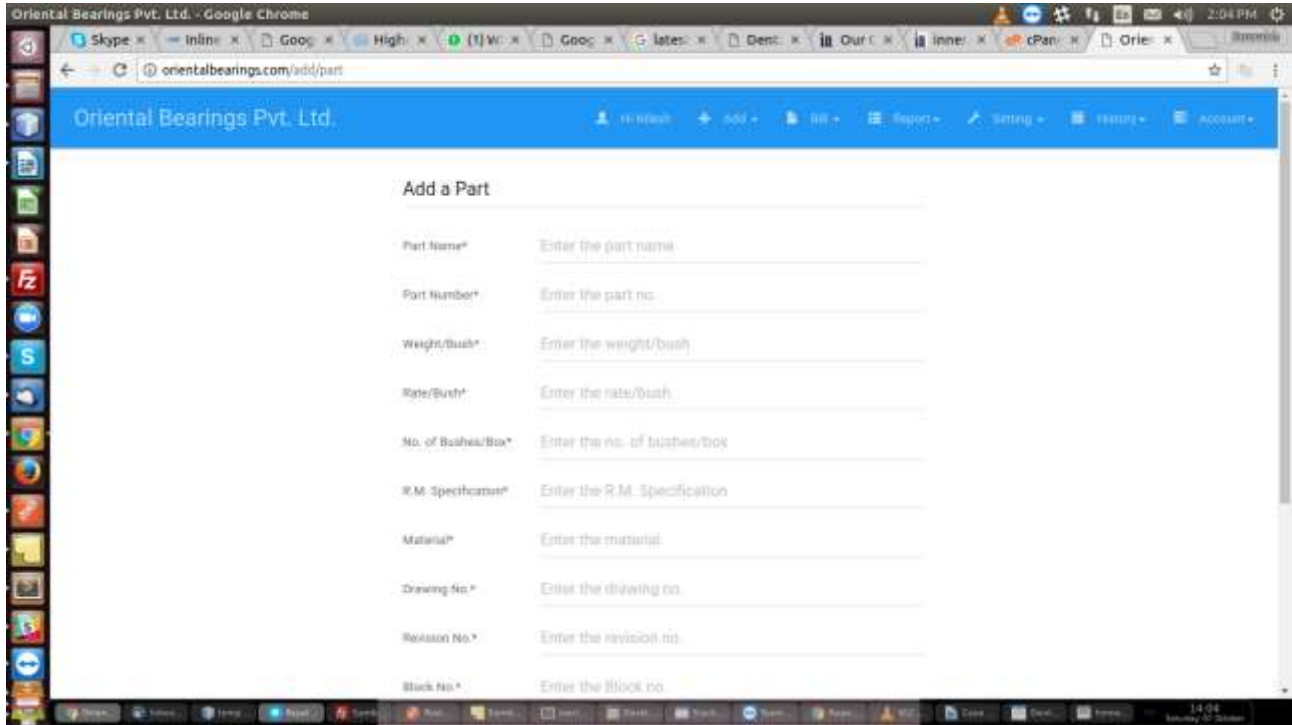
The screenshot displays the Oriental Bearings Pvt. Ltd. dashboard. At the top, there are five orange boxes with white text showing key metrics: 139 Parts, 48 Work Orders, 2 Vendors, 1 Transport, and 14 Parameter. Below these is a table titled 'Work Orders' with columns for Part Name, Work Order No., Work Order Date, Part Rate, Quantity(Kg), Quantity in no's, Dispatch, Pending, EDIT, and REMOVE. The table contains five rows of data for various TATA C/B NO. parts.

Part Name	Work Order No.	Work Order Date	Part Rate	Quantity(Kg)	Quantity in no's	Dispatch	Pending	EDIT	REMOVE
TATA C/B NO. 3, 0.010 PF MKT	403040774	04/10/2017	8.50	133.1	1100	0	1100	EDIT	REMOVE
TATA C/B NO.3,010 P/F MKT.	403040773	04/10/2017	8.50	102.85	850	0	850	EDIT	REMOVE
TATA C/B NO. 2, 0.010 PF MKT	403040772	04/10/2017	8.50	126.5	1100	0	1100	EDIT	REMOVE
TATA C/B NO.2, 0.010 P/F MKT	403040771	04/10/2017	8.50	141.45	1250	0	1250	EDIT	REMOVE
TATA C/B NO.1, 0.010 PF, MKT	403040770	04/10/2017	8.40	80.5	550	0	550	EDIT	REMOVE



Feature2

- With the help of this form, you can add a new part in system.



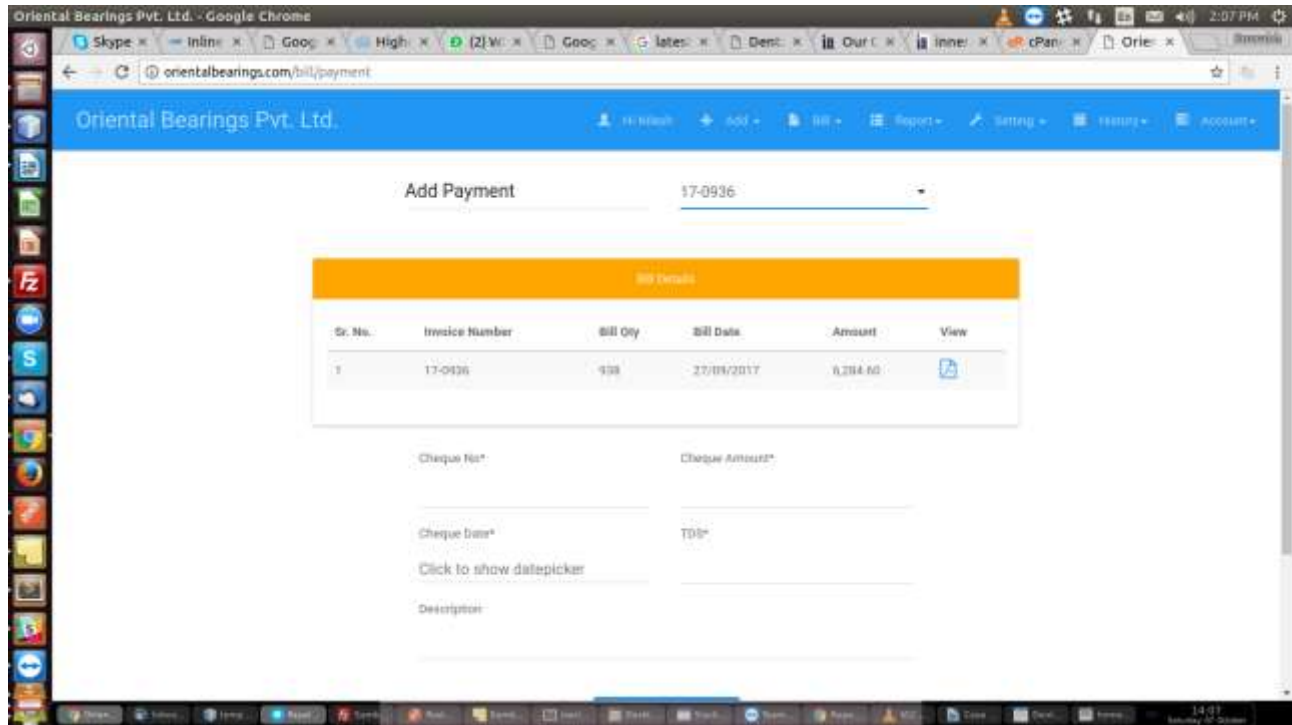
The screenshot shows a web browser window displaying the 'Add a Part' form for Oriental Bearings Pvt. Ltd. The form is titled 'Add a Part' and contains the following fields:

Field Name	Placeholder Text
Part Name*	Enter the part name
Part Number*	Enter the part no.
Weight/Bush*	Enter the weight/bush
Rate/Bush*	Enter the rate/bush
No. of Bushes/Box*	Enter the no. of bushes/box
R.M. Specifier*	Enter the R.M. Specification
Material*	Enter the material
Drawing No.*	Enter the drawing no.
Revision No.*	Enter the revision no.
Block No.*	Enter the Block no.



Feature3

- Add payments in regards to your bills, by filling out the cheque details.
- By clicking on the pdf attachment, you can download the bill with details.
- At the top, you can select your invoice , by using dropdown.



Feature4

- Below you can see downloaded report of stock in excel format.
- With the help of this, you can get an exact idea of stock anytime.

Stock_Report_Oct 2017 (1).xlsx - LibreOffice Calc

ORIENTAL BEARINGS PVT. LTD. Stock as on 07/10/2017

VENDOR CODE:- 807707

SR. NO.	PART NO.	PART NAME	UOM	PENDING QTY.	EXCISE CH. NO.	REMARK
1	Q.220.576.1.70	BAJ OM 616 I/S BUSH,STD U/B	NOS	4818	1700000185	
2	Q.220.590.1.00	BAJ OM616 I/SHAFT BUSH, STD	NOS	5078	1700000579	
3	Q.632.576.1.70	BHARAT GEAR CARRARD W/BUSH I170	NOS	1428	1700000649	
4	Q.632.590.0.00	BHARAT GEAR CARRARD W/BUSH(CA140294)	NOS	3750	SC1700000650	
5	Q.658.561.0.70	DANA BUSH 106 PORAL AXEL, STD UB	NOS	199	1730052317	
6	Q.658.561.0.70	DANA BUSH 106 PORAL AXEL, STD UB	NOS	987	1730052431	
7	Q.658.561.0.70	DANA BUSH 106 PORAL AXEL, STD UB	NOS	3202	1700000506	
8	Q.658.563.0.70	DANA BUSH 107 R/PORAL AXLE, STD U/B.	NOS	4695	1700000493	
9	Q.300.545.1.70	ESC 312C S/E BUSH, STD, UB	NOS	126	SC1700000651	
10	Q.330.551.0.00	ESC E3 215 C/B, STD P/F	NOS	3126	1730052571	
11	Q.330.351.1.00	ESC E3 215/E3 179 CAM SHAFT BUSH D10481800	NOS	539	1610052707	
12	Q.302.351.8.70	ESC FORD (C5NE) CAM SHAFT BUSH D10481830	NOS	1460	1700000648	
13	Q.302.651.0.70	FORD C5NE C/B, STD U/B	NOS	14024	SC1700000713	
14	Q.302.651.0.70	FORD C5NE C/B, STD U/B	NOS	13332	1700000523	
15	Q.302.545.1.70	FORD S/E BUSH, STD U/B.	NOS	739	1700000675	
16	Q.320.656.1.00	IHT AVL C/B FRONT, STD PF	NOS	1314	1700000553	
17	Q.001.545.2.00	KIR AV S/E (NT) BUSH,STD P/F	NOS	2000	1700000215	
18	Q.001.546.0.00	KIR AV V/R STD PF	NOS	9942	1730052627	
19	Q.547.546.0.70	KIR DV10 ROCKER LEVER BUSH,STD U/B	NOS	5481	1700000505	



Feature5

- By clicking on pdf icon, you can download the bill in pdf format and print it as well.

Vendor Name PO No. In No. Quantity PO Date Part Name No. of Boxes Bill Amount Pending Qty Bill Date Generate PDF

Vendor Name	PO No.	In No.	Quantity	PO Date	Part Name	No. of Boxes	Bill Amount	Pending Qty	Bill Date	Generate PDF
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040266	17-1011	1680	05/09/2017	FORD C/BE C/B, STD U/B	7	10,752.00	12233	08/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900037834	17-1015	1635	03/06/2017	DANA BUSH 104 PORAL AKD, STD U/B	11	16,920.00	947	05/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040430	17-1014	2247	21/06/2017	ESC 9130 G/E BUSH, STD. U/B	4	6,437.40	126	03/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040544	17-1013	1786	24/06/2017	FORD S/E. BUSH, STD U/B	4	6,858.20	739	02/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040181	17-1012	1333	09/06/2017	3HT C/B BEAR, STD PE AKMT	2	8,921.10	0	02/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040783	17-1011	1037	08/06/2017	3HT AVL C/B CENTER, STD PF	4	7,258.00	0	02/10/2017	
KEPS AUTOMOTIVE INDIA PVT. LTD.	4900040544	17-1012	1512	24/06/2017	FORD G/E BUSH, STD U/B	3	3,954.40	739	29/09/2017	



Feature6

- You can view the parameter history, by selecting the name of the parameter.
- You can view the complete details of the invoice, bill quantity, bill date etc.

The screenshot shows a web browser window displaying the 'Oriental Bearings Pvt. Ltd.' website. The page title is 'Oriental Bearings Pvt. Ltd.' and the URL is 'orientalbearings.com/history/parameter_history'. The page features a navigation menu with options like 'Home', 'Add', 'Bill', 'Report', 'Setting', 'History', and 'Account'. A dropdown menu for 'Parameter Name*' is set to 'Boring Rej'. Below this, a message box says 'Please Select a Parameter name to see the History'. Underneath, there is a table titled 'All History' with the following data:

Dr. No.	Invoice Number	Bill Qty (Kg)	Bill Qty	Bill Date	Amount
1	16-1121(1)	13.97	127	05/12/2016	0
2	16-1136(1)	2.97	30	09/12/2016	0
3	16-0536(1)	9.309	107	31/05/2016	0
4	16-0510(1)	140.763	2093	21/06/2016	880
5	17-0836(1)	13.4	100	24/08/2017	0

The browser's taskbar shows several open applications, including Skype, and a file named 'Sent_Block_...xlsx' is open in the background. The system tray at the bottom right shows the time as 14:20 on Saturday, 21 October.



Feature7

- You can view or edit any work orders.

Work Orders

Part Name	Work Order No.	Work Order Date	Part Rate	Quantity(Kg)	Quantity in m/s	Dispatch	Pending	EDIT	REMOVE
TATA C/B NO. 3, 0.010 PF MKT	4500040774	04/10/2017	8.50	133.1	1100	0	1100		
TATA C/B NO.3,STD P/F MKT	4500040773	04/10/2017	8.50	102.85	850	0	850		
TATA C/B NO. 2, 0.010 PF MKT	4300040772	04/10/2017	8.50	138.5	1100	0	1100		
TATA C/B NO.2, STD P/F MKT	4500040771	04/10/2017	8.50	141.45	1230	0	1230		
TATA C/B NO.1 0.010 PF MKT	4500040770	04/10/2017	8.80	60.5	550	0	550		
TATA C/B NO.1,STD P/F MKT	4300040769	04/10/2017	8.80	91.41	831	0	831		
KS 71121893 OM332 C/B-LSBME	4500040768	04/10/2017	7.80	427.996	2194	0	2194		
KS 71110694 OM355 C/B, STD UB	4500040717	02/10/2017	82.40	883.56	3157	0	3157		
FORD CSRE C/B, STD U/B	4500040706	30/09/2017	6.40	1140.068	14024	0	14024		
KS 71120604 OM352 C/B-1,STD PF	4500040704	30/09/2017	8.90	816.998	3202	0	3202		

Sent_Block_....xlsx Show all

