



Internship Report

Satyam R Khorjuvekar
1920

Report Of Internship Done at EnigmaSoft Technologies Private Limited

Submitted By:

Satyam R Khorjuvekar
1920

Under the Guidance Of

Mr. Uday Satardekar
(Team Lead, Enigma)

Mr. Ravish Chodankar
(Project Lead, Enigma)

With

Mr. Salim Mandrekar
(Project Manager, Enigma)

&

Mr. Atul Utturkar
(IT Manager, Enigma)

GOA UNIVERSITY



GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that **Mr. Satyam R Khorjuvekar** has been evaluated for the project work titled “**B2B Pharmaceutical Portal**” & “**Procurement System**” undertaken at **EnigmaSoft Technologies Pvt. Ltd., Panjim** in partial fulfilment for the award of the degree in **Master of Computer Application**.

Examiner 1

Examiner 2

Place: Goa University

Date: 6th June 2022

Dean, Goa
Business School

Acknowledgement

Interning in a company is a golden opportunity for learning and self-development specially to have so many wonderful people who let me through this internship period. The internship wouldn't be complete without expressing my gratitude and appreciation to all the people who made it possible.

My sincerest gratitude to Mr. Uday Satardekar (Team Lead, Enigma) and Mr. Ravish Chodankar (Project Lead, Enigma) for being my mentor and giving me the necessary guidance and support in every possible way.

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Last but not the least, I would like to thank my family and Co-workers who were always ready to help and guide me in all aspects of life. They have transferred me into a new person ready to face head-on challenges that comes my way.

DISCLAIMER

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CLIENT NAMES, PRODUCTS NAMES, CLASS DIAGRAMS, ERD AND WORKFLOW DETAILS ARE NOT GIVEN IN THIS REPORT AS IT IS AGAINST THE COMPANY'S PRIVACY POLICIES.

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Introduction

This report is a short description of my full-time on-site internship at EnigmaSoft Technologies, Panjim.

I joined as an intern at EnigmaSoft on 24th January 2022 and have been here since then. This report contains necessary information about the organization, the projects I have worked on and the other tasks and special learning I did and completed in this internship period.

In the chapters that will follow, I will talk about the company, the work here, the culture, etc. Then, I shall elaborate on the projects I worked on, a brief information about projects, the modules I built and the tasks I completed in those modules.

This report highlights my learning experience and my contribution towards the organization as an intern. This will describe the knowledge that I gained by successfully completing the tasks that were assigned to me.

I'll also be talking about the tools and technologies that were used by me during my internship period.

I shall conclude by sharing my experience and how it has helped me to grow, both, on the personal and professional front.

Company Profile

Enigma Tech is an IT outsourcing company based in the UK and Panjim Goa. There's a unique spirit in Enigma Tech, manifested in who we are, what we believe in and how we uniquely partner with our clients to accomplish their ambitious development goals.

We deliver exceptional technology solutions for world-class businesses in every industry, from dynamic startups to stable establishments.

At Enigma Tech, much emphasis is given to the burning social issues such as environment, harmful climate impacts and its changes.

Our Services

- Web Design & Development
- AI Powered IT Solutions
- Digital Marketing
- Media & Public Relations
- Architecture
- HR Solutions
- Accounting Solutions
- Customer Support

Our Industry Solutions

- Energy
- Fintech
- Telecommunications
- Pharmaceutical
- Architecture & Product Design

Project – Procurement System (Web Application)

Problem Statement

Front End: Allows the user to place an order for a particular product required in the organization for self-use or for organization use.

Back End: Captures details provided by the users and stores it in the database where the top-level employees pick it up and reviews it and based on need and priority of the product, approves or rejects the order placed.

Overview

Procurement system is a n web application for the company employees to automate the process of purchasing and maintaining inventories. In this application employees from different department can place order for a particular product for their department. Then the placed order is reviewed by the HR or IT admin or Manger depending on the product and department, and availability and priority is checked and if really needed, the order is placed.

Tools & Technologies used:

- Visual Studio
- SQL Server Management Studio
- Git
- C#
- ASP.Net MVC
- SQL
- JavaScript
- HTML
- CSS
- Bootstrap
- Ajax
- JSON
- jQuery

My Contribution

I was assigned to do the complete CRUD functionality in the Admin and User section, Login and Logout, partial database design.

My responsibility was:

- Admin & User Registration with Login, Logout & Sessions
- UI Design
- Add product & product category by Admin
- List all admins & users to Admin
- Add product wanted by User
- Partial database design & table creation.

Note: In this project details section, Users refers to employees who will use the system.

My detailed contribution is as follows:

- **Database design**
 1. Designed the database and its flow.
 2. Created database and tables.
- **Admin & User Registration**
 1. Made a provision to add new admin and user from Admin section. Users won't be able to directly register them self.
- **Admin & User Login & Logout**
 1. Designed a login page and Implemented login functionality for admin and user
 2. Implemented logout functionality for both.
 3. Forms authentication for login and logout.
- **UI Design**
 1. Designed Admin dashboard using HTML, CSS & Bootstrap
 2. Designed Category and Product pages.

- **List Admins & Users**
 1. Designed the list pages.
 2. Implemented function to get the list of all the admins and users in their respective pages.
 3. Display them using DataTables in their respective pages.
- **List Admins & Users functionality**
 1. Implemented edit option for admin and user, where admin can edit certain information of the admin and user.
 2. Also implemented delete function for admin, where he can delete desired user and admin.
 3. Confirmation alert for delete using CuteAlert.js.
- **Add Category**
 1. In this section admin can add new Department, Product type and unit of measurement for that product type.
 2. Implemented insert functionality to add new data in each category i.e., new department, product type and unit of measurement.
 3. Implemented a dropdown in which all the categories are listed. And upon selection of a particular category all the data in that category is listed in DataTables.
 4. Also implemented update and delete function for the same.
- **Add Product**
 1. In this section admin can add new products and can also see existing products.
 2. Implemented insert function to add new products in which 2 dropdowns were added which listed all the product types and unit of measurements respectively.
 3. Also implemented update and delete function for the same.
- **Dashboard for Admin**
 1. Created 3 sections, Accepted request, Rejected request & pending request
 2. Fetched the data from database and displayed their counts in their respective sections.

- **Dashboard for User**
 1. Basic dashboard designed for user with navigation menu in it.
 2. Implemented using Bootstrap.
- **Add Product by User**
 1. In this section user can request for new products and can also see existing products.
 2. Implemented insert function to add new product request in which 2 dropdowns were added which listed all the product types and unit of measurements respectively.
- **Stored Procedures**
 - ✓ For admin registration
 - ✓ For admin login
 - ✓ For user login
 - ✓ For user registration
 - ✓ To delete admin
 - ✓ To delete user
 - ✓ To display all admins
 - ✓ To display all users
 - ✓ To update admin details
 - ✓ To update user details
 - ✓ To display all the products
 - ✓ To get Id and Name to display in dropdown
 - ✓ To get the list of Product types
 - ✓ To add new category
 - ✓ To add new product
 - ✓ To get the order status for admin dashboard

Note: Search option was implemented in all the data listing pages and also CuteAlert for all the delete options.

Project – B2B Pharmaceutical Portal

(Web Application)

Problem Statement

Front End: Allows the customer to place bulk medical products order with and without product license and also allows supplier to offer multiple products to the customer based on his requirements.

Back End: Captures the medical products requirements from the customer and sends it to the suppliers depending upon the country of origin where supplier can offer the required products, if available with him.

Overview

A business-to-business Pharmaceutical Portal where customer can place bulk medical products order based on the country of origin with or without product license and based on the country of origin supplier can offer products to customer based on his requirements. On the other side super admin can keep a track on supplier and customer to meet the desired requirement and control the flow of the application. All this is done using eCommerce platform based on Microsoft's ASP.NET Core.

Tools & Technologies used:

- Visual Studio
- SQL Server Management Studio
- NopCommerce
- Git
- C#
- ASP.Net Core
- SQL
- Linq
- JavaScript
- HTML
- CSS

- Bootstrap
- Ajax
- JSON
- jQuery

My Contribution

At first, I was asked to understand the flow of nopcommerce platform based on Microsoft's ASP.NET Core and later on I was assigned my task as per my knowledge gained.

My responsibility was:

- Make UI changes based on the user.
- Excelsheet generation.
- Different validation in different scenarios.
- Email notifications.
- Assigning order limit for customer and supplier.
- Email templates.
- And many more, which will be listed in below section.

My detailed contribution is as follows:

- **UI Implementation**
 1. I was assigned to give the hover effect using CSS for a login icon which displays login & register tab.
- **Registration Page Fields**
 1. By default, on load hiding of fields which are not common to supplier and customer.
 2. Hiding and displaying of fields based on the selection of the user button.
- **Account Manager**
 1. On the customer info page, made provision to change password and email address.
 2. By default, the fields are disabled, on click of checkbox the fields get enabled.

- **Default Limit**
 1. Made a provision for admin to set default limit for all customer orders and all supplier offers, and it is assigned at the time of registration for both the users.
 2. Customer or supplier is not allowed to enter or change the limit.
- **Default Limit Alteration**
 1. Made a provision for admin to alter the limit for individual supplier or customer.
 2. Changing one's limit will not affect other's limit.
- **Excelsheet for Product Wanted**
 1. Implemented excelsheet through C# using EP Plus library.
 2. Fetched data from the database and stored it in the excelsheet.
 3. Used Vlookup formula to auto populate data in the fields based on the data selection at the first column.
 4. Implemented default limit in the excelsheet. Beyond the limit the customer will not be able to enter the data.
 5. Protected the sheets so that generated data is not altered.
- **Typeahead Dropdown**
 1. Added typeahead functionality for dropdowns using Selectize.js for customer and supplier.
 2. User can either select or type. Typed matching results will be displayed in ascending order.
- **Order Limit & Available Limit**
 1. Did validations for customer and supplier wherein they cannot order and offer products beyond limit set to them respectively.
 2. Count is directly validated from the database.
- **Excelsheet & Product List Validations**
 1. Data entered from excelsheet and product list is checked against the data already added in the grid.
 2. Once grid data is validated, then it checks the total available limit in the database against that particular user.

- **Database Validation against Product & Country**
 1. Data entered in the add product section and product offered section is validated directly against that user before submitting and if the same product with same country of origin is already present, then it throws an error.
- **Supplier Offers & Counter**
 1. Implemented functionality to display product offered by the supplier in the Supplier Offers section at the customer side.
 2. The top 100 offers with PL and rest without PL is displayed under this section.
 3. Also made provision to display offers from this section to counter section which are countered by supplier and customer from this section.
- **Supplier Offers with PL & Counter**
 1. Implemented functionality to display product offered with PL by the supplier in the Supplier Offers with PL section at the customer side.
 2. The order placed after top 100 offers with PL is displayed in this section and rest without PL is listed in supplier offers.
 3. Also made provision to display offers from this section to counter with PL section which are countered by supplier and customer in this section.
- **Product List with PL**
 1. Implemented functionality to get all the product offered with PL in this section.
 2. The top 100 products and whatever products rest follows with PL is listed in this section.
- **Close Product Wanted Enquiry**
 1. Implemented functionality to close the product wanted enquiry which is added by the customer itself.
 2. Confirmation dialogue to close enquiry using CuteAlert.js
 3. Upon closing of the enquiry, the available count is updated.

- **Closed Enquiry**
 1. Implemented a method to display enquiries that are closed by the customer.
 2. So that the customer can keep the track of his closed enquiries.
- **Financial Details**
 1. Created a form at supplier side to get the financial details of the supplier.
 2. The data is used by the admin to lay processing fees.
- **Excelsheet for Product Offered**
 1. Implemented excelsheet through C# using EP Plus library.
 2. Fetched data from the database and stored it in the excelsheet.
 3. Used Vlookup formula to auto populate data in the fields based on the data selection at the first column.
 4. Implemented default limit in the excelsheet. Beyond the limit the customer will not be able to enter the data.
 5. Country access is restricted to supplier's country of origin.
 6. Protected the sheets so that generated data is not altered.
- **Closed Offer**
 1. Whichever offer is closed by the supplier, it is displayed in the section.
 2. So that the supplier can keep the track of his closed offers.
- **Excelsheet & Product Offer Validations**
 1. Data entered from excelsheet and product offer is checked against the data already added in the grid.
 2. Once grid data is validated, then it checks the total available limit in the database base against that particular user.
- **Customer & Supplier**
 1. Differentiated customer and supplier based on their roles.
 2. Then displayed them respectively in their pages in the admin section.

- **Enquiries & Pending Enquiries**
 1. Made a provision to display customer enquiries to the admin.
 2. Implemented checkbox functionality, on the check of checkbox the pending enquiries are displayed to the admin.
 3. Also, on uncheck, all the enquiries are displayed to the admin.
- **Direct Profile Access**
 1. Implemented a functionality where in admin can directly access customer and supplier profile on behalf of them and place product enquiry or offer products respectively.
- **Available Limit Fix**
 1. Fixed a live update issue with available limit by placing it in partial view.
 2. The available count was not getting updated unless and until page is refreshed.
- **Email Templates**
 1. Designed static email templates with HTML and CSS.
 2. The email data was getting replaced in the email template but was not dynamic. It took the defined values.
- **Dynamic Email Templates**
 1. Implemented dynamic email templates where in the token is passed in the method.
 2. And based on the token, the data is replaced in the template.
- **Email Notifications**
 1. Implemented a base method where in the email is generated and sent in database table.
 2. Implemented a method to split the data in the email to format it properly.
 3. **Add Product:** email notification where in the product requested and its details are sent to all the suppliers of that particular country of origin.
 4. **Product Offered:** email notification where in the product offered and its details are mailed to that supplier itself.
 5. **Close Enquiry:** email notification is sent to the customer itself when he closes the product enquiry raised by him.

6. **Send Offer:** email notification is sent to the customer who has requested for the product with product details.
 7. **Reject Offer:** email notification is sent if and when the customer or supplier has rejected the counter offer respectively.
 8. **Close Offer:** email notification is sent to the supplier itself when he closes the product which he had offered.
- **Products Mapping**
 - Implemented a functionality where in admin can map PL products to the customer based on the customer's request.
 - The mapping is done irrespective of country of origin.

Other Tasks

FSD Analysis

- I was given a task to analysis the FSD of Procurement System and based on my understanding explain it to my project lead.
- To analysis the FSD of B2B Pharmaceutical Portal and based on my understanding explain it to my project lead.

FSD Update

- I was given a task to update the FSD of B2B Pharmaceutical Portal based on the change request by the client. Which was later sent to business analytics team for verification.

Minutes of the Meeting

- I was asked to prepare minutes of the meeting for the meetings held with the client and get it verified with the business analytics team and project manager.

Tools & Technologies Used



Microsoft Visual Studio is an integrated development environment from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps.



SQL Server Management Studio is a software application first launched with Microsoft SQL Server 2005 that is used for configuring, managing, and administering all components within Microsoft SQL Server. It is the



nopCommerce is an open-source eCommerce platform based on Microsoft's ASP.NET Core framework and MS SQL Server 2012 backend Database. It provides a catalog frontend and an administration tool backend, allowing shopping cart creation.



Git is a software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows.



C# is a general-purpose, multi-paradigm programming language. C# encompasses static typing, strong typing, lexically scoped, imperative, declarative, functional, generic, object-oriented, and component-oriented programming disciplines.



ASP.NET Core is a free and open-source web framework and successor to ASP.NET, developed by Microsoft. It is a modular framework that runs on both the full .NET Framework, on Windows, and the cross-platform .NET.



SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system.



Language Integrated Query is a Microsoft .NET Framework component that adds native data querying capabilities to .NET languages.



JavaScript, often abbreviated JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS.



The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.



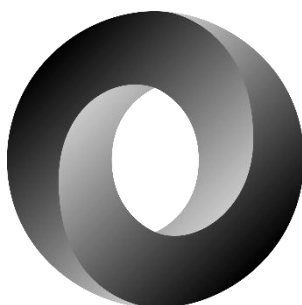
Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.



Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains HTML, CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.



Ajax is a set of web development techniques that uses various web technologies on the client-side to create asynchronous web applications. With Ajax, web applications can send and retrieve data from a server asynchronously without interfering with the display and behaviour of the existing page.



JSON is an open standard file format and data interchange format that uses human-readable text to store and transmit data objects consisting of attribute-value pairs and arrays. It is a common data format with diverse uses in electronic data interchange, including that of web applications with servers.



jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is free, open-source software using the permissive MIT License.

Project Timeline/ Project Diary

➤ Jan 2022

- **Week 1**

1. Formal orientation
2. Introduction to company's policies
3. Introduction to Keka & Citrix

➤ Feb 2022

- **Week 2**

1. Introduction to company's products & services
2. Explaining of project

- **Week 3**

1. Learning C# & ASP.NET

- **Week 4**

1. Learning of MVC architecture

- **Week 5**

1. Implemented MVC using ASP.NET
2. Started with the Procurement system FSD analysis

➤ March 2022

- **Week 6**

1. Started with project implementation
2. Started with database design

- **Week 7**

1. Designed UI
2. Started with the functionalities
3. Implemented stored procedures
4. Learned forms authentication

- **Week 8**
 1. Sprint demo with the Project lead
 2. Learned SQL with multiple joins
 3. Learned and implemented DataTables
 4. Multiple functionalities of the admin panel
- **Week 9**
 1. Implemented functionality for user to order
 2. Transferred on B2B Pharmaceutical Portal project
 3. Understood the flow of nopcommerce

➤ **April 2022**

- **Week 10**
 1. Understanding the code flow of nopcommerce
 2. Understanding the services of nopcommerce
- **Week 11**
 1. Meeting with the client for project overview
 2. FSD analysis
 3. Database alteration
- **Week 12**
 1. UI changes
 2. JavaScript implementation for on check display
 3. Validations using JavaScript
- **Week 13**
 1. Implemented excelsheet functionality using EP Plus library
 2. Typeahead dropdown functionality

➤ **May 2022**

- **Week 14**
 1. Learned Linq
 2. Implemented Supplier offers
 3. Implemented Supplier offers with PL
 4. Implemented Product list with PL

- **Week 15**
 1. Closed enquiries method
 2. Method to auto set order limit for customer and supplier
 3. Bug fix in available count update
- **Week 16**
 1. Designed email templates
 2. Email notification implementation
 3. Bug fix in email service
- **Week 17**
 1. Remaining Email notification implementation
 2. Admin side enquiry display

➤ **June 2022**

- **Week 18**
 1. Product mapping implementation
 2. Supplier offer counter with and without PL bug fix

My Reflections/ Experience of Internship

My Internship at EnigmaSoft has been a wonderful journey in terms of growing experience at industry level as well as personal level. Facing new situations and overcoming every obstacle has taught me a lot about Information Technology Industry and the company as a whole.

Developing academic projects and working on live projects is on whole another level. Whatever we learn during our academics is on one side, but applying all of that into a real-world application have been hugely beneficial and morale booster. Being part of industry and working on their live project is something which gives you experience beyond one can imagine.

Here at EnigmaSoft the environment which you get while working is totally different, you get that vibe of working freely without any burden or fear because you know that there are people who will help you to get out of every situation.

At EnigmaSoft there are many events which helps to interact with the employees:

- Weekly games
- Annual Day
- Team fun activities
- Birthday celebrations
- New joinee introductions
- And many more

Overall, I'm very pleased to be part of EnigmaSoft Technologies and my best wishes to everyone here!!!

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