

# TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCES

INTERNSHIP REPORT

 $\mathbf{ON}$ 

PHP INTERN

 $\mathbf{AT}$ 

**AMNIL TECHNOLOGY** 

**Submitted to** 

**Department of Computer Application** 

**Asian College of Higher Studies** 

In partial fulfillment of the requirements for the Bachelor's in Computer Application

**Submitted by** 

Name: Bishal Adhikari

TU Reg. No: 6-2-1177-12-2020

Under the Supervision of Bidur Sapkota



# TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCES Asian College of Higher Studies

#### **MENTOR'S RECOMMENDATION**

I hereby recommend that this internship report prepared under my supervision by **Bishal Adhikari** (6-2-1177-12-2020) entitled " **Intern AT AMNIL Technologies PVT.LTD.**" in partial fulfillment of the requirements for the degree of Bachelor of Computer Application be processed for the evaluation.

.....

#### **Bivash Magar**

Desktop Team Lead

AMNIL Technologies Pvt. Ltd.

Jhamsikhel, Lalitpur



# TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCES ASIAN COLLEGE OF HIGHER STUDIES

#### SUPERVISOR'S RECOMMENDATION

I hereby recommend that this internship report prepared under my supervision by **Bishal Adhikari** (6-2-1177-12-2020) entitled "INTERN AT AMNIL TECHNOLOGIES **PVT.LTD.**" in partial fulfillment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

.....

#### **Bidur Sapkota**

Supervisor

Department Bachelor of Computer Application

Asian College of Higher Studies

Ekantakuna, Lalitpur

# TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCES

#### ASIAN COLLEGE OF HIGHER STUDIES



This is to certify that this internship report prepared by **Bishal Adhikari** (6-2-1177-12-2020) entitled "PHP Intern" in partial fulfillment of the requirements for the degree of Bachelor's in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

Mr. Bidur Sapkota Supervisor Asian College of Higher Studies	Mr. Mohan Maharjan Principal Asian College of Higher Studies
Mr. Janak K. Lal	Tribhuvan University
Internal Supervisor Asian College of Higher Studies	Thonavan Omversity

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for their encouragement and unwavering support during this project.

Bishal Adhikari

TU Reg: 6-2-1177-12-2020

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#### **ABSTRACT**

Amnil Technologies Pvt. Ltd., established in 2009, is a software development company based in Nepal, specializing in customized technological solutions tailored to diverse industry needs. The company offers a range of services, including business process digitization and automation, data analysis and visualization, enterprise applications, datadriven applications, mobile apps, robotic process automation, omni-channel chatbots, and resource augmentation. Amnil Technologies has developed various applications, notably AMTIX, a theater ticketing system utilized by major multiplexes like QFX Cinemas and FCube Cinemas in Nepal. Additionally, the company provides pharmaceutical software adopted by leading domestic pharmaceutical firms and has developed websites and software for commercial banks and telecommunications companies such as Ncell. The company emphasizes a user-centric approach, delivering intuitive and customized interfaces across web and mobile platforms to enhance user experience. Amnil Technologies employs a variety of technologies to ensure flexibility and performance, adapting to the specific requirements of each project. By integrating automation with tailored technological solutions, Amnil Technologies aims to transform business operations across various sectors, contributing to the digital advancement of organizations.

**Keywords**: Amnil Technologies Pvt. Ltd., software development, business process automation, data analysis, enterprise applications, mobile apps, robotic process automation, chatbots, AMTIX, theater ticketing system, pharmaceutical software, Nepal, QFX Cinemas, FCube Cinemas, Ncell

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### LIST OF ABBREVIATIONS

**HR:** Human Resources

**IT:** Information Technology

JS: JavaScript

MIS: Management Information System

**MVC:** Model View Controller

MySQL: My Structured Query Language

**UI:** User Interface

#### **CHAPTER 1: INTRODUCTION**

#### 1.1. Introduction

This report outlines the experiences and progress achieved during an internship at Amnil Technologies Pvt. Ltd., a software development company established in 2009 and based in Nepal. The internship role was that of a Backend developer where the focuses on PHP and Laravel framework.

During the internship, involvement spanned multiple projects, including the development of a theater ticketing system and pharmaceutical software solutions. The theater ticketing system aimed to streamline the ticket purchasing process for cinemas, enhancing user experience and operational efficiency. The pharmaceutical software solutions were designed to assist pharmaceutical companies in managing their operations more effectively. Amnil Technologies emphasizes a user-centric approach, delivering intuitive and customized interfaces across web and mobile platforms to enhance user experience. The company employs a variety of technologies to ensure flexibility and performance, adapting to the specific requirements of each project.

By integrating automation with tailored technological solutions, Amnil Technologies aims to transform business operations across various sectors, contributing to the digital advancement of organizations. (Karlsson, 2010)

The main purpose of establishing Amnil Technologies was to address the pervasive gap in customized and efficient digital solutions across various industries in Nepal. The lack of tailored, technology-driven platforms meant that many businesses were hindered by outdated manual processes, fragmented communication channels, and suboptimal operational workflows. These challenges created significant obstacles to achieving streamlined business processes, enhanced data management, and improved overall efficiency.

Amnil Technologies was founded to bridge this critical gap by delivering innovative, user-centric software solutions that not only automate core business functions but also foster seamless communication and robust process management. By providing bespoke technological solutions that cater to the unique needs of each client, Amnil Technologies ensures that organizations can move beyond generic systems and embrace a more reliable and effective digital transformation strategy.

#### 1.2. Problem statement:

Amnil Technologies was established to address the significant challenges impeding Nepal's digital transformation. Despite advancements in internet penetration and mobile broadband access, many organizations continue to rely on outdated manual systems, leading to inefficiencies and errors. A scarcity of customized, industry-specific software hampers businesses from optimizing operations and meeting unique sectoral demands. Unclear or outdated legislation creates obstacles for tech startups and firms, making compliance and innovation challenging. The migration of skilled IT professionals and limited local opportunities contribute to a talent drain, affecting the growth and sustainability of tech enterprises. Poor infrastructure, especially outside Kathmandu Valley, restricts the scalability and reach of digital solutions. Amnil Technologies was established to directly tackle these challenges by offering comprehensive, customized technological solutions. Their services encompass business process digitization, data analysis, enterprise applications, mobile app development, robotic process automation, and more. By focusing on user-centric design and strategic implementation, Amnil aims to streamline operations, enhance data management, and improve overall efficiency for businesses across Nepal.

#### 1.3. Objective:

The objectives of this internship at Amnil Technology Pvt. Ltd are as follows:

- To apply the knowledge learned during the course in real world applications and to learn the company cultures.
- To improve skills in backend development especially in PHP laravel, and develop coding, debugging and testing skills relevant to the task.
- To collaborate with stakeholders and team members in an efficient manner while improving teamwork, communication, and project management abilities.
- To develop problem-solving abilities.

#### 1.4 Scope and Limitation:

#### **Scopes:**

- Business from various sectors-such as entertainment, pharmaceuticals, banking and telecommunications- can leverage Amnil Technologies' custom solutions vie both web and mobile platforms, ensuring seamless access to critical applications.
- Organizations can utilize the company's robust software to streamline operations, automate manual processes, and enhance communication channels through intuitive

digital interfaces.

- The technology suite supports a range of services, including theater ticketing, enterprise data management, and process automation, allowing for improve operational efficiency and customer engagement.
- Client benefit from advanced features like data visualization, real-time analytics, and omni-channel support, which empower them to make informed decisions and stay competitive.
- The solutions are designed to integrate with existing systems while offering scalability and flexibility tailored to meet specific industry requirements.

#### **Limitation:**

- A stable internet connection is required for real-time data updates and optimal performance across the web and mobile applications.
- Customization for diverse industries may necessitate additional integration efforts and technical support potentially impacting the speed of deployment.
- Users might need dedicated training and ongoing assistance to fully harness the comprehensive features and capabilities of the deployed solutions.
- Integration with legacy systems could pose challenges as some existing infrastructures may not fully support the modern digital solutions provided by Amnil Technologies.
- Certain specialized applications may have constraints based on variable client-specific requirements, and the need for continuous adaptation to evolving operational environments.

#### 1.5. Report Organization:

The report is organized into five chapters.

**Chapter 1:** The introduction to the project assigned during the internship and the work done is briefly introduced. The problem statement defines the problem that was being targeted by the project. It also mentions the different objectives of the project/work. The scope and limitations describe the targeted audience and goals for the project but also the goals that the project fails to meet.

**Chapter 2:** It starts off with the introduction to the organization and carries on to describe the organization's hierarchy. It also describes the different domains that the organization is working in. Then it goes on to the details about the department or unit that the intern worked

in. Finally, the section has a literature review/ related study that evaluates findings of different papers that has been relevant for research during this internship project work.

**Chapter 3:** The section consists of the analysis of the current system the roles and responsibilities assigned during the internship are mentioned. It also displays the weekly log of the technical activities performed during the internship period. It also includes the description of the projects involved during the internship and the different tasks and activities performed during the time span.

**Chapter 4:** In chapter four, it has the conclusion for the report. It restates the topic, internship statement and summarizes the whole document. Finally, since this is an internship report, it is necessary to write the learning outcomes from this internship period.

**Chapter 5**: The final chapter is the conclusion section which includes the learning outcomes from the internship.

#### **CHAPTER 2: INTRODUCTION TO ORGANIZATION**

#### 2.1. Organization Details:

Amnil Technologies Pvt. Ltd., founded in 2009, specializes in delivering tailored Technology solutions to help businesses achieve their unique objectives and enhance their operations. With expertise across several domains including business process digitization and automation, data analysis and visualization, enterprise application development, data-driven applications, mobile app development, robotic process automation (RPA), omnichannel chatbot development, and resource augmentation, we serve a wide range of industries globally. (Technologies, 2009)

Our approach is guided by strategy, creativity, and the latest technologies. We utilize advanced tools and frameworks such as .NET Core, Node.js, PHP Laravel, Python, and cloud-based solutions to deliver outstanding results. Our commitment to building long-term relationships with clients is built on transparency, quality, and dedication.

As an ISO 27001:2013 certified company, we prioritize delivering secure and scalable solutions. At Amnil Technologies, we focus on building better, growing together, and creating lasting impact for our client.

Table 1. 1 Organization Details

Name	Amnil Technologies Pvt. Ltd
Location	Jhamsikhel, Lalitpur, Nepal
Website	https://www.amniltech.com
Email	info@amniltech.com

#### 2.2. Organizational Hierarchy:

In nearly every organization, there exists a hierarchy that defines work roles and authority. An organization's hierarchy can influence communication, productivity, and project success. By learning organization hierarchies, you can gain insights into your organization's

structure and develop ideas for structural changes whenever required. The organization in Nepal consists of different managers, seniors, juniors, associates and interns.

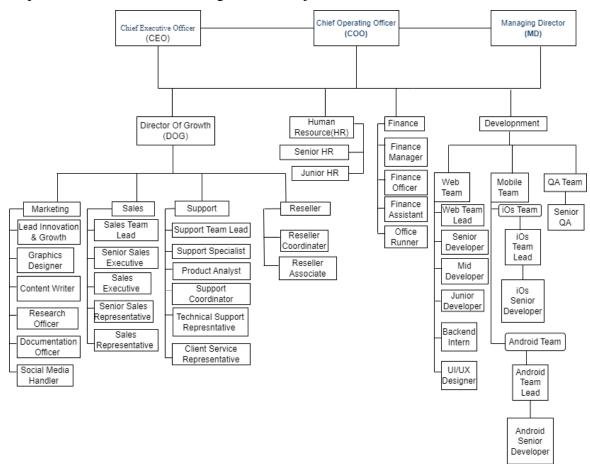


Figure 1. 1 Organization Hierarchy

#### 2.3. Working Domains of Organization:

Amnil Technologies operates in several key domains, focusing on business process digitization, enterprise applications, mobile app development, and robotic process automation. Their expertise extends to data analysis and omnichannel chatbot development, enabling them to provide innovative solutions to industries such as pharmaceuticals, banking, and media. They help businesses enhance their operational efficiency and customer engagement through cutting-edge technologies.

#### 2.4. Description of Intern Department/Unit:

Amnil Technologies offers internship opportunities across various departments, such as Business Process Digitization, Data Analysis, Enterprise Applications, Mobile App Development, and Robotic Process Automation. Interested candidates can apply by sending their CVs to careers@amniltech.com.

The company typically looks for interns with experience in languages like .NET, PHP, Java, ReactJS, JavaScript, Python, and other programming languages. Interns have the chance to gain hands-on experience by working closely with industry professionals, contributing to real-world projects, and enhancing their technical skills in a supportive learning environment.

Table 1. 2 Internship Details

Intern's Name	Bishal Adhikari
Project Name	Ecommerce
Department Name	Development Team
Start Date	7 Janyary,2024
End Date	20 <sup>th</sup> April,2025
Working days	Monday-Friday
Intern Hours	3 PM- 4PM
Mentor's Name	Bivash Magar

## CHAPTER 3: BACKGROUND STUDY AND LITERATURE REVIEW

#### 3.1 Background Study:

Amnil Technology Pvt. Ltd., established in 2009, is a Nepal-based software company specializing in business process digitization, enterprise applications, and automation solutions. It has successfully delivered projects across pharmaceuticals, banking, telecommunications, and government sectors.

Amnil is known for its data-driven applications, AI-powered chatbots, robotic process automation (RPA), and enterprise solutions, focusing on efficiency, accuracy, and scalability. Notable projects include AMTIX, a theater ticketing system used by QFX and FCube Cinemas, along with ERP, e-commerce, and banking software.

With expertise in .NET, C#, SQL-based databases, WinForms, ADO.NET, and Entity Framework (EF), Amnil integrates cloud computing, AI, and data analytics to drive digital transformation for businesses.

#### 3.2 Literature Review

Several companies provide similar services to **Amnil Technology Pvt. Ltd.**, offering business process automation and digital solutions. Below are some of the notable players in this space:

- **Nimble Infosys:** specializes in comprehensive automation solutions for finance, human resources, asset management, and office digitization. Their software includes HRMS and payroll systems for employee record management, payroll automation, and leave tracking. They also offer ERP solutions for tracking inventory, sales, and purchases, along with custom software development tailored to business automation needs.
- Deerwalk Services: is known for big data analytics, AI-powered applications, and healthcare informatics. Their expertise includes predictive analytics for data-driven decision-making, cloud-based solutions for enterprise workflow management, and endto-end software development services for global clients. (Babu, Jun 2024)
- F1Soft International is a leading fintech company in Nepal, providing digital banking, mobile banking, and payment gateway solutions. Their services include digital wallets such as eSewa, Nepal's largest online payment platform. (Omkar Paudel, 2024)
   Each of these companies has made significant contributions to automation and business

process management, similar to **Amnil Technology Pvt. Ltd.** However, Amnil differentiates itself with its expertise in customized enterprise solutions, software development in **.NET**, and AI-powered automation tools, making it a key player in Nepal's IT sector.

#### **CHAPTER 4: INTERNSHIP ACTIVITIES**

#### 4.1 Roles and Responsibilities

As a PHP Intern at Amnil Technology Pvt. Ltd., I was responsible for contributing to the development and enhancement of web applications using PHP. My key roles and responsibilities included:

- Understanding the workflow of Laravel Framework.
- Understanding the MVC architecture.
- Focuses on maintaining the CRUD application.

Through these responsibilities, aims to gain the practical experience in PHP Laravel, database management, and software optimization, strengthening my technical skills in real-world applications.

#### 4.2. Weekly Log

Table 1. 3 Weekly Log

Weeks	Task
Week 1-2	<ul> <li>Research and learn the tools (PHP basics and installation of Composer and PHP 8</li> <li>Plan with the team on how to move forward.</li> </ul>
Week 3-4	<ul><li>Learn the tools (Composer, MySQL)</li><li>Knew the requirements of the given task.</li></ul>
Week 5	<ul> <li>Overview of Laravel Route, Middleware and Controller</li> </ul>
Week 6	<ul> <li>Implemented small features using PHP functions and OOP principles.</li> <li>Understood MVC (Model-View-Controller) and basic middleware.</li> <li>Explored tools like Git and GitHub for version control and team collaboration.</li> </ul>
Week7-8	Integrated frontend designs with backend PHP logic which is controller

	Started Laravel breeze and admin panel
Week 9-10	Bugs fixing of above modules with the help of seniors.
Week 11	• Enhancement of debugging skills with the technologies being used.

#### 4.3 Description of the Project Involved During Internship

The implementation strategy for the non-linear equation solver project included development, testing, and deployment phases based on project planning activities and deliverables. The system development process involved creating the system design and establishing a plan for how each system component would be implemented. As an intern, the opportunity to work on building the application using PHP, Laravel framework and Mysql for database management. Testing was performed to ensure the product was functional, efficient, and ready for deployment.

HTML, CSS, JS, Bootstrap, tailwind, jQuery, React

**Backend:** The backend is designed using Laravel, PHP, My SQL.

**HTML:** HTML (Hypertext Markup Language) is used in this system for denoting structural, semantics for text such as headings, paragraphs, lists and other items. Through html codes different labels has been implemented such as for registering patients form such as text, email, password, text area to login is implemented through html.

CSS: CSS (Cascading Style Sheet) is used in this system for designing and styling forms, managing the padding and margin of label and bottom as well as adding background color and images in the system. Also, it's for designing navigation bar, header, footer and menu of this system.

**JavaScript:** JS is used in this system to pop up the message using the alert keyword to display the message in the system such as adding a new class ("new class added") is displayed.

**jQuery:** jQuery is a JavaScript library used for simplifying DOM manipulation and Ajax interactions on the client side of web development.

**MYSQL:** MYSQL an open-source relational database management system is used for storing the database in this system.

**React:** React is a JavaScript library developed by Facebook for building dynamic and interactive user interfaces, particularly for single-page applications. It allows developers to create reusable UI components and efficiently manage application states using a virtual DOM.

Laravel: Laravel is a popular PHP framework known for its elegant syntax and powerful

tools for web application development. It includes features like an ORM (Eloquent), routing, authentication, and built-in support for tasks such as scheduling, queuing, and caching, streamlining complex backend operations

#### 4.4 Tasks/Activities Performed

As part of the PHP internship the opportunity to got working in understanding the ORM Eloquent and CRUD application.

- Developing the Simple application in the Laravel Framework.
- Integrating MYSQL Database: Used Laravel framework to integrate SQLite for storing equation inputs and solutions.
- Refining the User Interface (UI): Designed a clean, responsive, and user-friendly web forms using React and Tailwindess.
- Testing and Debugging: Performed thorough testing to ensure the equations were computed correctly and the application was functioning as intended.
- Collaboration with the Development Team: Worked closely with the team to understand the project scope, contribute ideas, and ensure seamless integration with the overall project.

This combination of front-end and back-end development, along with database integration, contributed to the completion of the non-linear equation solver project successfully.

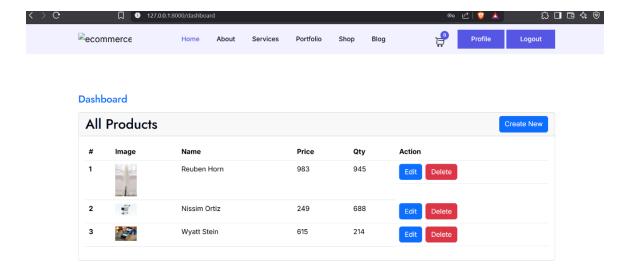


Figure 1. 2 Dashboard of Admin

#### Dashboard

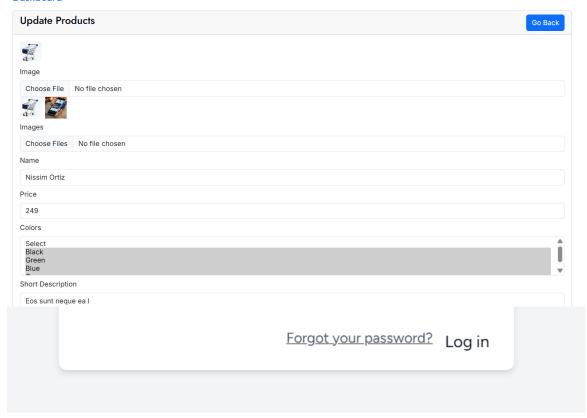


Figure 1. 3 Login Page of Admin

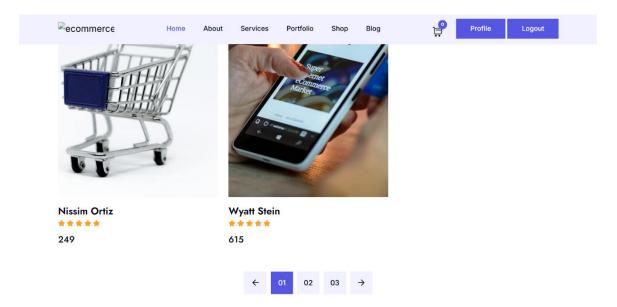


Figure 1. 4 Product Section

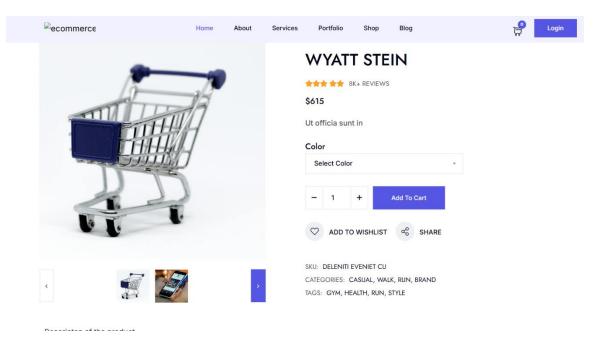


Figure 1. 5 Product Details

## CHAPTER 5: CONCLUSION AND LEARNING OUTCOMES

#### **5.1 Conclusions**

The internship program has been an excellent and rewarding experience for the author. It has provided author with the opportunity to develop understanding of real-world working environment as well as establish network contact with different personnel from the IT industry. During internship author learn all about web development flow.

#### **5.2 Learning Outcomes**

During the tenure of internship the learning part is of using the Framework and how it can simply change the make the code faster. The internship has helped the intern to learn and adjust in the different situation and find how to figuring out the problem's solution.

One important lesson learned by intern was "Transforming Education Through Technology"

#### **REFERENCES**

- Babu, S. R. (Jun 2024). AI-Driven Healthcare: Predictive Analytics for Disease Diagnosis and Treatment.
- Karlsson, C. (2010). *Integrating new technology in established organizations: A mapping of integration mechanisms*. Research Gate.
- Omkar Paudel, U. R. (2024). Adoption of Mobile Wallets in Nepal: Examining the Influence of Trust and the Mediating Role of Security and Privacy. *Research Gate*. Technologies, A. (2009). *Who we are*. Jhamsikhel.