

A Final Year Internship Report on Full Stack Developer at Upveda Technology Pvt. Ltd

Submitted To
Office of Dean,
Faculty of Management
Tribhuvan University

In partial fulfillment of the requirement for the Degree of Bachelor of Information Management (BIM)

Under the Supervision of
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TU Registration No: 7-2-939-183-2020

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SUPERVISOR'S RECOMMENDATION

I hereby recommend that this report has been prepared under my supervision by **Allan Saud** in partial fulfillment of the requirements for the degree of **Bachelor of Information Management (BIM)**. This report is now ready for evaluation.

Er. Dhiraj Kumar Jha

Project Coordinator/ Internship Supervisor Orchid International College Bijayachowk, Gaushala

DECLARATION

I hereby declare that this internship project entitled "Daily Sales Report (DSR) System" submitted to the Office of the Dean, Faculty of Management, Tribhuvan University, is a result of my own internship study carried out at Upveda Technology Pvt. Ltd., Kathmandu, from October 2024 to January 2025, in partial fulfillment of the requirement for the degree of Bachelor of Information Management (BIM). It has not been previously submitted to any other university or institution.

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Allan Saud

BIM VIII semester

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ABSTRACT

This internship project is conducted for the partial fulfillment of the Bachelor of

Information Management (BIM) degree awarded by Tribhuvan University (TU). The

internship was undertaken at Upveda Technology Pvt. Ltd., where I worked as a Full

Stack Developer Intern. During my internship, I actively contributed to the

Development of the Daily Sales Report (DSR) System, which is designed to streamline

sales tracking, data management, and reporting.

My role encompassed backend development using Django, frontend implementation

with React, database management with PostgreSQL, and API testing with Postman. The

report provides an in-depth analysis of the methodologies, tools, and technologies used,

along with the challenges faced and solutions implemented during the development

process. This experience has significantly enhanced my technical and professional skills

while providing valuable industry exposure.

Keywords: Django, React, PostgreSQL, API Testing, Full Stack Development

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I would like to express my deepest gratitude to Tribhuvan University, Faculty of

Management, and Orchid International College for providing me with this internship

opportunity. This program has allowed me to practically apply my academic knowledge

and gain invaluable insights into the real-world workings of a software development

company.

I extend my sincere thanks to Upveda Technology Pvt. Ltd. for accepting me as an intern

and providing me with the resources, mentorship, and opportunities to enhance my

technical and professional skills. I am deeply grateful to my mentor at Upveda

Technology, Mr. Ravi Bhattarai, for his guidance and continuous support throughout

my internship period.

Additionally, I would like to thank my college supervisor, Er. Dhiraj Kumar Jha, for

providing constructive feedback and ensuring the successful completion of this report.

Finally, my heartfelt appreciation goes to my family, friends, and colleagues who

encouraged and supported me throughout this internship journey.

Allan Saud

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LIST OF ABBREVIATIONS

Abbreviation	Full Form
AI	Artificial Intelligence
BIM	Bachelor of Information Management
CEO	Chief Executive Officer
CPaaS	Communications Platform as a Service
GDP	Gross Domestic Product
IT	Information Technology
ML	Machine Learning
MMS	Multimedia Messaging Service
R&D	Research and Development
SEO	Search Engine Optimization
SMS	Short Message Service

CHAPTER I – INTRODUCTION

1.1 Introduction

An internship is an integral part of the **Bachelor of Information Management (BIM)** program, enabling students to gain practical experience in their chosen field. This report provides an overview of my internship experience at **Upveda Technology Pvt. Ltd.**, where I worked as a Full Stack Developer Intern.

This internship helped bridge the gap between theoretical learning and practical implementation by allowing me to apply my academic knowledge in real-world projects. It provided hands-on experience with full stack development, database management, and software testing.

1.2 Background

The Bachelor of Information Management (BIM) program combines 60% information technology and 40% management courses to prepare students for careers in both technical and organizational roles. As part of the curriculum, an internship program is mandatory to bridge the gap between academic learning and professional practice. This report presents the experience and outcomes of my internship at Upveda Technology Pvt. Ltd., where I contributed as a Full Stack Developer intern.

Internship programs are integral in equipping students with hands-on experience, enhancing their technical skills, and providing insight into organizational workflows. It serves as a platform for applying theoretical knowledge to solve real-world problems, which in my case involved developing a system for managing daily sales reports.

1.3 Literature Review

The integration of React for frontend development and Django for backend services represents a powerful technological approach to implementing these systems, combining interactive user experiences with robust data management capabilities. This literature review examines existing implementations and research on sales reporting systems that specifically utilize React for frontend development and Django for backend services.

SalesDash by TechRetail (2023) represents an innovative open-source implementation that seamlessly integrates React with Django to deliver a comprehensive retail sales dashboard system. The platform offers robust features including daily, weekly, and monthly sales comparisons, detailed product category performance analysis, real-time inventory tracking integrated with sales data, and sophisticated role-based access control for different stakeholders. From a technical perspective, SalesDash leverages Django REST Framework for API development and Redux for effective state management, with a particularly notable implementation of WebSockets that enables real-time dashboard updates during high-volume sales periods. This architecture allows businesses to monitor sales performance with minimal latency, making it especially valuable for retail operations with dynamic inventory and pricing models (Johnson & Smith, 2023).

RetailPulse Analytics (2022) emerged as a commercial solution that strategically utilizes Django for backend data processing coupled with a React frontend to create a cohesive sales reporting system. The architecture incorporates modular Django applications that address different aspects of sales reporting, React components organized systematically by visualization type, Celery integration for efficient background processing of large datasets, and JWT authentication to ensure secure API access. The system gained significant recognition in the industry for its ability to efficiently process retail data from multiple locations simultaneously while maintaining consistently responsive performance. This capability makes RetailPulse particularly suitable for franchise operations and multi-branch retail businesses seeking consolidated sales intelligence without sacrificing dashboard responsiveness (Chen, 2022).

The Enterprise Sales Platform documented by DataSystems LLC in 2023 demonstrates how larger organizations can effectively structure complex sales reporting requirements across distributed systems. This enterprise-grade implementation features a sophisticated microservices architecture with Django services communicating via REST APIs, a React frontend utilizing extensively reusable component libraries, a Redis caching layer strategically implemented to improve dashboard performance under heavy load, and comprehensive authentication via OAuth2 with granular role-based permissions. The system's ability to segment data access based on organizational roles while presenting unified analytics makes it particularly valuable for corporations with

complex organizational structures and strict data governance requirements (DataSystems LLC, 2023).

1.4 Objectives

The objectives of this internship were:

- To develop technical proficiency in tools and frameworks such as Django, React, PostgreSQL, and API testing tools like Postman.
- To learn and utilize project management tools like Trello for task management and progress tracking.

1.5 Methodology

The internship program followed a structured methodology comprising:

- 1. **Orientation and Induction:** Familiarizing myself with the company's work culture, tools, and ongoing projects.
- 2. **Requirement Analysis:** Understanding the functional and non-functional requirements of the Daily Sales Report (DSR) System through discussions with the team.
- 3. **Development:** Implementing the backend using Django and the frontend using React.
- 4. **Testing:** Utilizing Postman to test APIs and ensure functionality, security, and performance.
- 5. **Documentation:** Recording progress, preparing technical documentation, and creating user manuals for the system.

1.5.1 Organization Selection

As part of the requirements for the BIM degree at Tribhuvan University (TU), students must complete an internship in the IT field, making the selection of the right organization a crucial decision. Choosing an organization for the internship is always a significant step. The first move is to find a company that matches personal interests. Before deciding, it was vital to assess the work environment and the specific skills that

could be gained. Upveda Technology Pvt. Ltd was the company that gave me the chance to grow my knowledge as a full stack developer.

1.5.2 Placement

During the internship, a dedicated workspace was provided, and the role was treated as that of a trainee staff member. Access was granted to various resources, information, and equipment within the organization, enabling efficient learning and contribution.

1.5.3 Duration

Table 1.1 Duration of Internship

Time Period	23 October, 2024 – 23 January, 2025
Days Per Week	5 days
Office Time	10 AM - 6 PM
Working Hour	8 hours
Position	Full Stack developer Intern
Mentor	Ravi Bhattarai
Average Working Hour in a Week	40
Holiday in a Week	2 days

1.5.4 Activities

Table 1.2 Activities of Internship

Stages	Description
Orientation &	Introduction to company culture and ongoing
Induction	projects.
Requirement	Understanding functional & non-functional
Analysis	requirements of the DSR System.
Development	Backend development using Django, frontend
Bevelopment	with React.
Testing	API testing with Postman for performance &
resung	security.
Documentation	Recording progress, creating technical & user
Documentation	documentation.

CHAPTER II - INTRODUCTION OF INDUSTRY

2.1 Brief Introduction of Industry

The Information Technology (IT) industry is dynamic and rapidly evolving, centered on the development, implementation, and management of technologies for storing, processing, and transmitting information. IT plays a vital role in shaping the modern world, impacting how people live, work, and communicate. The industry encompasses diverse areas, such as hardware, software, networking, cybersecurity, cloud computing, data analytics, artificial intelligence (AI), and machine learning (ML). It significantly influences global economies and various sectors, including healthcare, finance, and education, by driving innovation and transforming traditional practices.

IT companies provide a range of services like software development, IT consulting, database management, and content creation. In today's world, IT is deeply integrated into everyday life, from powering airplanes and cars to managing telecommunications and household appliances. As technology continues to advance, the IT industry will remain crucial in shaping the future for individuals, businesses, and governments worldwide.

2.2 Introduction to IT

The presence of Information Technology in management plays a significant role in various organizations by helping managers adapt to new business processes and anticipate the effects of emerging technologies. IT tools and software packages provide managers with efficient ways to handle tasks, store confidential information securely, and quickly access the data they need with just a click.

To effectively use these IT tools and systems, managers require comprehensive training in information technology. Some key benefits of IT include the re-engineering of work practices, increased speed and reliability, and consistent accuracy in operations.

2.3 Scope of IT in Nepal

Increasingly dependency on technology has created a growing demand for IT professionals. The recent advancements in IT and related fields have sparked a technological revolution, closely linking them to various industries.

IT graduates in Nepal have opportunities across multiple sectors, including software development, finance, healthcare, and corporate organizations. Common career paths for these graduates include roles such as System Analysts, Project Managers, Software Developers, Web Developers, Digital Marketer etc.

2.4 History of IT in Nepal

The history of IT in Nepal is relatively recent, spanning just a few decades, but the growth has been rapid. A significant step towards IT advancement occurred in 1971 when the IBM 1401, a second-generation mainframe computer, was used in the national census, following the use of an electronic calculator in the 1961 census. Another milestone was the use of the ICL 2950/10 mainframe computer for the 1981 census. The private sector played a crucial role in sparking interest in IT. Although internet access was initially limited to email services in 1995, Mercantile Communications eventually launched full internet services. In 1998, the Nepal Telecommunications Authority (NTA) was established under the Telecommunications Act of 1997, with the power to issue licenses to Internet Service Providers (ISPs).

Over the years, internet usage in Nepal has grown significantly. In 2000, only 0.2% of the population had internet access, which increased to about 2.2% by 2010 and over 4 million users by 2012, thanks to advancements in technology and the introduction of smartphones and tablets. While there are positive signs for IT development in Nepal, there is still much work to be done to improve the quality of IT services and education to keep pace with global standards. Investment in technology and computing is essential to achieving globalization and sustained progress.

2.5 Importance of IT

With the help of IT, communication has also become cheaper, quicker and more efficient. The internet has also opened up face to face direct communication from different parts of the world.

IT has helped computerize the business process thus streamlining businesses to make them extremely cost-effective money-making machines. This in turn increases productivity which ultimately gives rise to profit that means better pay and less strenuous working condition.IT is the creation of new and interesting jobs. Computer programmers, System analysts, Software developers and Web designers are just some of the many new employment opportunities created with the help of IT.

Information technology is used for storing, protecting, processing, securing, transmitting, receiving and retrieving information. Furthermore, the technological development has aided the entire globe.

2.6 Challenges and Opportunities

2.6.1 Challenges

The IT industry in Nepal faces several challenges, despite its rapid progress. Some of these challenges include:

- Outdated or inadequate IT policies
- Lack of enforcement of cyber laws
- Issues related to globalization, outsourcing, and offshoring
- Limited budget allocation for IT development

2.6.2 Opportunities

Despite these challenges, the IT industry in Nepal presents numerous opportunities, particularly in a developing country. The sector has played a crucial role in improving the quality of life for many people which includes:

- Increasing outsourcing from foreign countries due to low labor costs
- Positive impact of foreign projects on the country's GDP
- The creation of a borderless world as a result of globalization

CHAPTER III - INTRODUCTION OF THE ORGANIZATION

3.1 Introduction to Organization

Upveda Technology Pvt. Ltd. is a leading software development company based in Kathmandu, Nepal. It is known for its expertise in providing digital solutions that enhance business efficiency and customer engagement. The company specializes in custom software development, web and mobile applications, data analytics, and API integration.

Upveda focuses on innovation and cutting-edge technologies to deliver scalable and efficient solutions that empower businesses. By leveraging the latest trends in software engineering and cloud computing, the company aims to optimize processes and improve operational performance for its clients

3.2 Mission

- To deliver high-quality, scalable, and customized software solutions that meet diverse business needs.
- To foster a customer-centric approach in software development, ensuring tailored solutions for each client.
- To create a dynamic work environment that encourages continuous learning and innovation

3.3 Vision

- To be a top-tier software development company recognized for its technological excellence and client satisfaction.
- To drive digital transformation in Nepal and beyond by providing cost-effective and cutting-edge solutions.
- To establish long-term partnerships with businesses seeking reliable IT services.

3.4 Organization Structure

A Functional Structure is a traditional and widely adopted organizational model where employees are grouped based on their specific roles or expertise. In software companies, this often means separate departments for frontend development, backend development, design, quality assurance (QA), and project management. Each team is supervised by a functional manager who ensures team members follow standardized practices and continuously grow in their specific domain. This structure promotes specialization and efficiency, making it easier to manage tasks within each department.

A **Divisional Structure** organizes the company based on products, projects, or services. Each division functions like a mini-company with its own product manager, developers, and support staff dedicated solely to that product. In a company like Upveda Technology, there is separate divisions for the Daily Sales Report (DSR) system, Inventory Management, and Sales Analytics. This setup allows each division to focus more deeply on its unique objectives and customer needs. It enhances accountability, as each team is responsible for the success of its own product, and allows for quicker adaptation to market changes or specific client feedback.

A Matrix Structure is a hybrid model that combines aspects of both functional and divisional structures. In this setup, employees report to both a functional manager and a product manager. For instance, a backend developer may report to the engineering manager for technical growth while also being part of the DSR team under the product manager for task execution. This dual-reporting system encourages cross-functional collaboration and maximizes resource utilization across projects. While matrix structures offer flexibility and better coordination between departments and projects, they also require clear communication and coordination to manage reporting lines effectively.

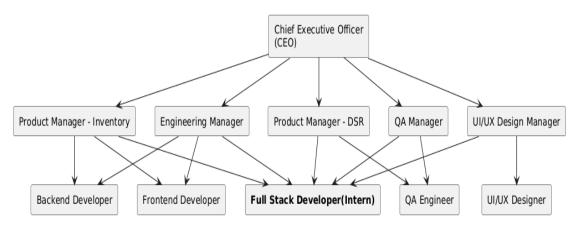


Figure: 3.1 Matrix Organization Structure

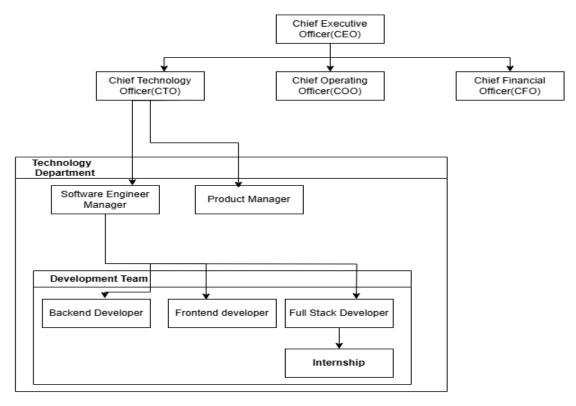


Figure: 3.2 Functional Organization Structure

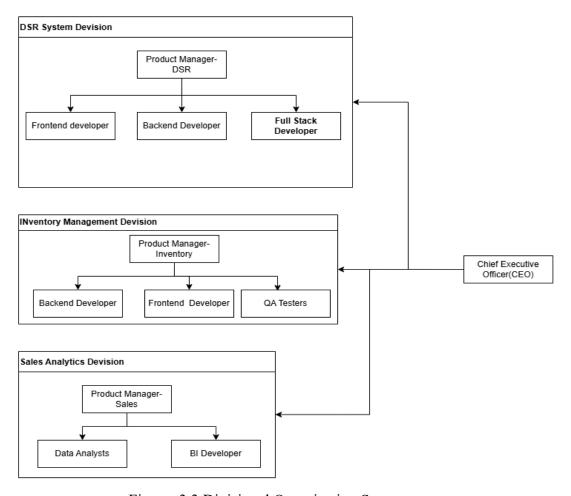


Figure: 3.3 Divisional Organization Structure

3.5 Contact Details

Table 3.3 Contact Details

Website	https://upvedatech.com.np/
Email	info@upvedatech.com.np
Phone	01-4794597
Address	House Number: 1061, Madan Bhandari Path, New Baneshwor, Kathmandu

CHAPTER IV - ANALYSIS OF ACTIVITIES

4.1 Analysis of Activities Done

During the internship at Upveda Technology Pvt. Ltd., the role involved working as a Full Stack Developer Intern. The primary responsibility was to contribute to the Daily Sales Report (DSR) System, a web-based application designed to manage and analyze daily sales, stock data, and performance targets. The key activities involved are as follows:

4.1.1 Backend Development using Django

Backend modules were developed and maintained using the Django framework, featuring CRUD operations for Opening Stock, Stock Transfer, Target Sales, and Master Modules. User authentication, permission control, and soft-delete mechanisms were implemented to ensure secure data handling.

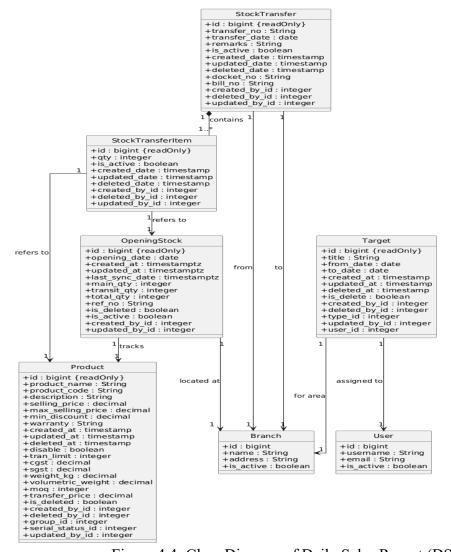


Figure 4.4: Class Diagram of Daily Sales Report (DSR)

4.1.2 Database design and Integration

Using PostgreSQL, normalized schemas were designed for the sales-related models, ensuring efficient relationships among tables. Optimized queries and migration scripts were written to maintain data consistency and support rapid development.

```
C:\>cd "Program Files"

C:\Program Files>cd PostgreSQL

C:\Program Files\PostgreSQL\cd 17

C:\Program Files\PostgreSQL\17\cd bin

C:\Program Files\PostgreSQL\17\bin>pg_dump -U postgres -s dsr_live > C:\workdb.sql

Access is denied.

C:\Program Files\PostgreSQL\17\bin>pg_dump -U postgres -s dsr_live > C:\workdb.sql

Access is denied.

C:\Program Files\PostgreSQL\17\bin>pg_dump -U postgres -s dsr_live > C:\workdb.sql

Access is denied.

C:\Program Files\PostgreSQL\17\bin>pg_dump -U postgres -s dsr_live > "C:\OneDrive\Documents\workdb.sql"

Password:

C:\Program Files\PostgreSQL\17\bin>
```

```
ALTER TABLE public master_area OWNER TO postgres;
-- Name: master area id seq; Type: SEQUENCE; Schema: public; Owner: postgres
ALTER TABLE public.master_area ALTER COLUMN id ADD GENERATED BY DEFAULT AS IDENTITY (
    SEQUENCE NAME public.master_area_id_seq
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);
 -- Name: master branch; Type: TABLE; Schema: public; Owner: postgres
 CREATE TABLE public.master_branch (
     id bigint NOT NULL,
     title character varying(200),
     email character varying(254),
     disable boolean,
     code character varying(50),
     "brAddress" character varying(255),
     "brType" character varying(2),
     "isDealer" boolean,
     "contactNo" character varying(15),
     "isOTPValidation" boolean,
     state_id bigint
 );
```

```
-- Name: master_opening_stock; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.master_opening_stock (
    id bigint NOT NULL,
    ref_no character varying(50),
    opening_date date,
    main_qty integer,
    transit_qty integer,
    total_qty integer,
     created_at timestamp with time zone,
     updated_at timestamp with time zone,
    last_sync_date timestamp with time zone,
    is_active boolean,
    area_id bigint,
    created_by_id integer,
     product_id bigint,
    updated_by_id integer,
     is_deleted boolean NOT NULL
);
-- Name: master_products; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.master_products (
    id bigint NOT NULL,
    product_name character varying(200),
    product_code character varying(100),
    description text,
    selling\_price\ numeric(18,2),
    max_selling_price numeric(18,2),
    min_discount numeric(10,2),
    warranty integer,
    created_at timestamp with time zone,
    updated_at timestamp with time zone,
    deleted_at timestamp with time zone,
    disable boolean,
    tran_limit numeric(18,2),
    gst numeric(18,2),
    cgst numeric(18,2),
    sgst numeric(18,2),
    weight_kg numeric(10,2),
    volumetric_weight numeric(18,2),
    moq integer,
    {\tt transfer\_price} \ {\tt numeric} (18,2),
    is_deleted boolean,
    created_by_id integer,
    deleted_by_id integer,
group_id bigint,
    serial_status_id bigint,
    updated_by_id integer,
    CONSTRAINT master_products_moq_check CHECK ((moq >= 0)),
    CONSTRAINT master_products_warranty_check CHECK ((warranty >= 0))
);
```

```
-- Name: transactions__stock_transfer; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.transactions__stock_transfer (
   id integer NOT NULL,
   transfer_no character varying(50) NOT NULL,
   transfer_date date,
   remarks text,
   is_active boolean NOT NULL,
   created_date timestamp with time zone NOT NULL,
   updated_date timestamp with time zone NOT NULL,
   deleted_date timestamp with time zone,
   docket_no character varying(30),
   bill_no character varying(30),
   created_by_id integer,
   deleted_by_id integer,
   from_branch_id bigint NOT NULL,
   to_branch_id bigint NOT NULL,
   updated_by_id integer,
   product jsonb
-- Name: target_target; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.target_target (
     id bigint NOT NULL,
     title character varying(255) NOT NULL,
     from_date date NOT NULL,
     to_date date NOT NULL,
     created_at timestamp with time zone NOT NULL,
     updated_at timestamp with time zone NOT NULL,
     deleted_at timestamp with time zone,
     is delete boolean NOT NULL,
     area_id bigint NOT NULL,
     created_by_id integer,
     deleted_by_id integer,
     type_id integer NOT NULL,
     updated_by_id integer,
     user_id integer NOT NULL
);
-- Name: transactions__stock_transfer_item; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.transactions__stock_transfer_item (
   id integer NOT NULL,
   qty integer,
   is_active boolean NOT NULL,
   created_date timestamp with time zone NOT NULL,
   updated_date timestamp with time zone NOT NULL,
   deleted_date timestamp with time zone,
   created_by_id integer,
   deleted_by_id integer,
   opening_stock_id bigint NOT NULL,
   product_id bigint NOT NULL,
   stock_transfer_id integer NOT NULL,
   updated_by_id integer
);
```

4.1.3 API Development and Testing

RESTful APIs were built using Django REST Framework (DRF) and tested using Postman. These APIs facilitated communication between the frontend and backend. Features such as filtering, pagination, sorting, and searching were implemented to support efficient data handling.

Table 4.4: Test Case of Daily Sales report (DSR)

Test Case ID	Module	Test Scenario	Test Steps	Test Data	Expecte d Result	Actual Result	Stat us
TC0 01	Authenti cation	Test user login with valid credential s	1. Open login page 2. Enter valid credentials 3. Click login	Username : admin Password: admin123	Redirect to dashboa rd	Worked	Pass
TC0 02	Authenti cation	Test login with invalid password	 Enter username Enter incorrect password Click login 	Username : admin Password: wrongpas sword	Error message "Invalid Credenti als"	Worked correctly	Pass

TC0 03	Opening Stock	Create a new opening stock entry	1. Go to stock module 2. Click "Add" 3. Fill form4.	Product: Sugar Qty: 50 Date: Today	Stock entry is added and visible in the list	Worked	Pass
TC0 04	Opening Stock	Attempt to create duplicate stock entry	Same as TC003 with same data	Same as TC003	Error: "Entry already exists for this product and date"	Worked correctly	Pass
TC0 05	Stock Transfer	Transfer stock to branch	1. Go to stock transfer 2. Select source/dest ination 3. Enter qty	From: Warehous e To: Branch A Qty: 30	Stock deducte d from source and added to destinati on	Worked	Pass
TC0 06	Target Sales	Assign sales target to user	1. Open target module 2. Assign to user	User: John Target: 100 units	Target saved successf ully	Worked correctly	Pass

TC0 07	API - Product List	Test GET /products / API	1. Open Postman 2. Send GET request	None	200 OK and list of products	Worked correctly	Pass
TC0 08	API - Stock Add	Test POST /stock/ API	1. Send JSON with new stock entry	JSON: {product: "Salt", qty: 20}	201 Created with response data	Worked correctly	Pass
TC0 09	Excel Import	Upload Excel file for sales data	1. Navigate to import2. Choose Excel file3. Upload	Valid Excel file	Data is processe d and stored	Worked	Pass

4.1.4 Frontend Integration

While the main focus was backend development, contributions included integrating API data into React UI components, creating data entry forms, and ensuring smooth communication between frontend and backend.

4.1.5 Excel Import/Export Functionality

Excel import and export features were implemented using Django packages such as pandas and django-import-export. These features enabled users to upload sales data in bulk and download reports as spreadsheets for analysis.

4.1.6 Code Documentation and Version Control

The codebase and development process were clearly documented to ensure maintainability. Git was used for version control, facilitating efficient collaboration and tracking of changes throughout the development cycle.

4.1.7 Agile Collaboration and Standup

Active participation took place in daily standups, sprint planning, and code reviews under the guidance of a mentor. Trello was used for task tracking, providing practical experience with Agile methodologies in a professional environment.

4.2 Tools Used

Various tools were being used during an internship. Different tools help to perform activities as per the requirement of the clients. Tools that were being used are listed as:

Table 4.5 Tools Used

Tools / Technologies	Description
Python & Django	Used for building the backend logic, database models, and APIs.
PostgreSQL	A powerful, open-source relational database used for managing structured data.
React	JavaScript library for building dynamic frontend interfaces.
Postman	Tool for testing and debugging APIs.
Git & GitHub	Version control system used to track code changes and collaborate with the team.
Trello	Project management tool used to assign tasks and track progress.
Excel / pandas	For importing and exporting bulk data in spreadsheet format.

CHAPTER V - CONCLUSION AND RECOMMENDATION

5.1 Lesson Learnt

The internship at Upveda Technology Pvt. Ltd. was a transformational learning experience, facilitating a transition from theoretical understanding to hands-on implementation in a professional environment. The key takeaways include:

- Deepened understanding of backend development using Django and how scalable systems are built in real-world projects.
- Database handling and optimization skills with PostgreSQL, including efficient schema design and data retrieval.
- Practical experience with API development and testing, including handling authentication, permissions, and RESTful architecture.
- Experience in Excel import/export integration, enhancing my ability to work with large datasets and business reports.
- Improved collaboration and communication skills through Agile practices, code reviews, and teamwork.
- Exposure to real-time debugging, handling edge cases, and improving performance under guidance from experienced mentors.

5.2 Conclusion

The internship at Upveda Technology Pvt. Ltd. was a valuable and career-defining experience. It provided the opportunity to work on a real-world software project, gain exposure to professional development practices, and enhance both technical and interpersonal skills. During the internship, contributions were made to the Daily Sales Report (DSR) System, specifically working on modules like stock transfer, opening stock, and sales targets. This hands-on experience allowed for the acquisition of practical knowledge in building and deploying robust web applications.

The internship not only solidified the passion for software development but also equipped with the tools and confidence needed to thrive in the professional world. The experience has prepared for full-time responsibilities and advanced opportunities in backend and full-stack development.

5.3 Recommendation

Based on the internship experience at Upveda Technology Pvt. Ltd., several recommendations can be made for both future interns and the organization to further enhance the effectiveness of such programs:

For Future Interns:

- Solidify foundational knowledge before starting: A good grasp of Python, Django, and database fundamentals (especially SQL and PostgreSQL) will significantly ease the onboarding process.
- Embrace Agile methodologies: Understanding Agile practices such as daily stand-ups, sprint planning, and retrospectives will help interns integrate more effectively with the team.
- Practice self-learning and proactiveness: Real-world development often involves unknowns. Being proactive in seeking help and using resources like documentation or forums accelerates learning.
- **Focus on soft skills:** Communication, teamwork, and time management are just as crucial as technical skills in a collaborative development environment.

For Upveda Technology Pvt. Ltd.:

- Onboarding documentation: Creating a structured onboarding guide for new interns can help them get up to speed faster with the project setup and company practices.
- **Mentorship structure:** Assigning dedicated mentors or a buddy system can enhance the learning experience and ensure interns receive consistent feedback and support.
- Exposure to cross-functional areas: Allowing interns to explore frontend or DevOps aspects alongside backend tasks can give a more holistic understanding of software development.
- Feedback mechanism: Implementing regular one-on-one feedback sessions can help track intern progress and address any challenges more effectively.

By continuously improving the internship framework, both the interns and the company can benefit more from the program, making it a mutually enriching experience.

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APPENDICES

