

Report On
TECH OPERATION INTERN OF INNOVATE
INTERNATIONAL LTD

by

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20301445

An Internship submitted to the Department of Computer Science and Engineering
in
partial fulfillment of the requirements for the degree of
B.Sc. in Computer Science

Department of Computer Science and Engineering
Brac University
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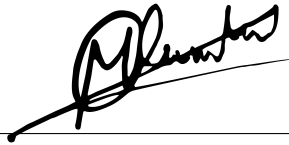
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Declaration

It is hereby declared that

1. The internship submitted is my/our own original work while completing a degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material that has been accepted or submitted for any other degree or diploma at a university or other institution.
4. I/we have acknowledged all main sources of help.

Student's Full Name & Signature:

A handwritten signature in black ink, appearing to read 'Mehrab Hasan', is written over a horizontal line.

Mehrab Hasan
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Approval

The internship “Tech Operation Intern of Innovate International Ltd.” submitted by

1. Mehrab Hasan (20301445)

of Spring 2025 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of BSC on 31st January, 2025.

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Ethics Statement

The highest rules of ethics, which include maintaining confidentiality and carrying out all responsibilities with integrity, have guided me during this internship. I produced original material that was truthful and compliant with the organization's policies and the law. To make sure that my actions always reflected positively on the company and on myself, I kept clear of any conflicts of interest and handled clients and coworkers with professionalism and respect.

Executive Summary

Innovate International Ltd. is one of the prominent vendors in Bangladesh for IT solutions. The major dealings are related to digital marketing, drop shipping, software development, and research activities. Becoming one of the fastest-growing companies in the country, we have managed to enable various organizations globally, delivering innovative, customized solutions that give birth to effectiveness and advancement. Even though we have gathered experience in many other sectors, among those, we are interested in contemporary textile software, where we want to change the marketplace with innovative technology.

Our commitment to redefinition at Innovate International includes the provision of customized services and innovative solutions for any industry. We keep our customers competitive in an ever-changing market by developing advanced technological solutions combined with in-depth industry insight. We are therefore the partner of choice for organizations looking for long-term success in the digital marketplace, whether this is in the form of expanded access to markets or improved operational efficiencies.

Keywords: Digital Marketing, Drop shipping, Software Development, Research activities, textile software

Acknowledgement

By mentioning the many people that helped create this internship report and made the project a success overall, the author thanks Allah for the help that went into it. Next, I would like to extend my profound gratitude to Mr. Tamkin Mahmud Tan, a lecturer at BRAC University and my supervisor, for helping me with the composition of this report. Without his help, this report may not appear to be feasible to write. Additionally, I want to convey my sincere gratitude to everyone at Innovate International Ltd. for treating me like one of their own and to all of the wonderful individuals who oversaw my internship.

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Nomenclature

The next list describes several symbols & abbreviation that will be later used within the body of the document

CEO Chief Executive Officer

CMO Chief Marketing officer

COO Chief Operation officer

HOD Head of Department

IITL Innovate International Technologies Ltd

MD Managing Director

Glossary

Tech Solution

The term "tech solution" describes the application of technology-based tools and services to improve goods and services, increase operational effectiveness, or address business issues. It includes research, drop shipping platforms, digital marketing, and software development. These technological solutions are provided by Innovate International Ltd. to assist companies in expanding and staying competitive in the digital age.

Analysis

Innovate International Ltd. utilizes technology to address business issues, streamline operations, and drive growth, offering customized solutions in software, research, and marketing to enhance efficiency and competitiveness.

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Chapter 1

Overview of Internship

1.1 Student Information

Name:	Mehrab Hasan
ID:	20301445
Program:	Bachelor of Computer Science and Engineering (CSE)
Major:	Computer Science and Engineering (CSE)
Minor:	N/A

Table 1.1: Student Information

1.2 Internship Information

1.2.1 Period, Company name, Department, Address:

Period:	11 May -12 November 2024
Comapny Name:	Innovate International Ltd.
Department:	Tech Operation
Address:	Gulshan Link Road, Dhaka, Bangladesh

Table 1.2: Internship Information

1.2.2 Internship Company Supervisors:

Name:	Sheikh Saadi
Position:	Jr. Software Engineer

Table 1.3: Internship Company Supervisors' Information

1.2.3 Job Scope & Job Responsibilities:

The Tech Operation Intern position was given to me. With the assistance of our teams, I executed to finish several kinds of duties. During my internship, I mostly worked in the Tech Operation division. These are some of my duties and projects:

- Support in the department's day-to-day operations.
- Help with keeping track of technical paperwork.
- Encourage system monitoring and troubleshooting.
- Assist with software deployments and updates.
- Work together in groups on operational responsibilities and campaigns.
- In order to fix operational problems, provide basic technical help.
- Maintain updated on system functioning and report any irregularities.
- Maintain and update internal tools and databases.
- Help troubleshoot software and hardware problems.
- Take part in the testing and deployment of new technological solutions.
- Improve operational efficiency in close collaboration with top tech officers.
- Assist with operational project coordination.

1.3 Internship Outcome

I believe I have tried to contribute to the company since I was getting noticed and appreciated by many of them. First, by keeping an eye on systems and resolving problems, I assist in managing their tasks during peak hours, including everyday operations. Additionally, by supporting different teams with operational chores, keeping up with technical documentation, and helping with software changes. I also offer new insights on enhancing operational effectiveness. I also had the opportunity to accompany the cops to clients' homes to obtain legal paperwork. Additionally, I assist in putting new technological solutions into practice, which makes them useful team members for process optimization. Therefore, I think I made a big contribution to the organization.

1.3.1 Problems and difficulties faced during the internship

I consider my internship to be a wild adventure. In addition to the advantages, there are also drawbacks. Since I was new to the area, I first had trouble interacting with the cops; I was unable to comprehend the surroundings and how to respond to specific circumstances, which require time to adjust to. In addition, because I was receiving paperwork from several police, I occasionally mixed them up. Finding certain features and data from previous projects was also the most problem during the internship; with so many projects and tasks in the organization, it was challenging to obtain the data quickly.

Chapter 2

Organizational Part

2.1 Introduction

We at Innovate International are your go-to source for cutting-edge IT solutions that enable companies to prosper in the rapidly evolving digital landscape of today. Software creation, state-of-the-art research, drop shipping, and dynamic digital marketing tactics catered to your needs are all included in our extensive offerings. With our experience, we reshape sectors, facilitating easy innovation and growth for businesses. With a focus on contemporary textile software, we offer tailored solutions that improve client experience, increase efficiency, and streamline processes. We offer the resources and know-how to propel your business forward, whether your goal is supplying chain optimization, online client engagement, or the deployment of cutting-edge technology. Join forces with us to revolutionize your company, maintain a competitive edge, and influence the direction of your sector.

2.1.1 Mission

At Innovate International, our goal is to provide cutting-edge technology solutions that enable companies to expand and prosper. We assist businesses with increasing efficiency and streamline processes by specializing in digital marketing, drop shipping, software development, and research. With an emphasis on contemporary textile software, our goal is to revolutionize the sector by offering customized, state-of-the-art solutions. We are committed to delivering value, encouraging expansion, and establishing enduring alliances. (Innovate International Ltd Mission, n.d.)[1]

2.1.2 Vision

Our vision is to become a world leader in technology solutions, transforming sectors with cutting-edge services and software. By using cutting-edge, environmentally friendly methods, we hope to raise the bar for the textile sector. Our mission is to enable companies all over the world to easily traverse digital terrain. We see a time when technology propels any business, we work with to achieve remarkable success. (Innovate International Ltd Vision, n.d.)[2]

2.2 Overview of The Company

2.2.1 About Innovate International Ltd.

A leading supplier of technological solutions, Innovate International provides a broad range of services aimed at assisting companies in succeeding in the digital sphere. Our primary areas of expertise include digital marketing, drop shipping, software development, and research, all of which are customized to our clients' specific requirements. We are experts in contemporary textile software, offering state-of-the-art solutions that promote innovation and optimizing processes in the textile sector. With a dedication to quality, we enable companies to boost output, streamline processes, and seize fresh chances for expansion. We assist businesses in redefining their sectors and achieving long-term success by remaining on the cutting edge of technology. At Innovate International, we place a high level of teamwork, creativity, and client satisfaction to provide our clients with lasting, significant solutions.

2.2.2 Current Situation

Presently, Innovate International is flourishing as a reliable supplier of digital solutions, growing its clientele in a variety of sectors. The company is particularly successful in modern textile software, promoting innovation and operational efficiency for its clients in a cutthroat market with an emphasis on software development, research, drop shipping, and digital marketing.

2.2.3 Products and Services Offered by Innovate International Ltd.:

1. Development of Software

- Software solutions that are specifically designed to satisfy the particular requirements of organizations.
- Expertise in contemporary textile software, which optimizes processes for the textile sector.
- Software development from start to finish, encompassing design, implementation, and support.

2. Research and Innovation

- Advanced research services to assist businesses in staying ahead of market developments.
- Insights derived from data that propel technological developments, market strategies, and product development.
- Proficiency in investigating cutting-edge technology to improve corporate effectiveness.

3. Drop shipping Solutions

- Simplified drop shipping solutions that let companies grow effectively without having to worry about inventory control.
- Automated systems for managing customer service, tracking inventory, and processing orders.
- E-commerce platform integration to streamline product delivery and fulfillment.

4. Digital Marketing

- PPC advertising, social media marketing, SEO, and other comprehensive digital marketing techniques.
- Customized approaches to boost traffic, raise conversions, and enhance online presence.
- Proficiency in developing focused marketing initiatives that improve brand awareness and interaction.

5. IT Consulting

- Analyze the efficiency of the current IT infrastructure and recommend enhancements.
- Design specific technology plans in accordance with the corporate objectives to innovate and expand.
- Advice on the implementation of advanced technologies such as automation, artificial intelligence, and cloud computing.

6. Cybersecurity Services

- Carry out penetration tests and vulnerability assessments to identify and minimize security threats.
- Install intrusion detection systems, firewalls, and antivirus software, among other robust network security measures.
- Provide incident response and round-the-clock monitoring to protect against current cyberthreats.

7. Data Analytics and Business Intelligence

- Extract insightful knowledge from raw data using state-of-the-art analytics technologies to capture, clean, and transform.
- Visualize key performance indicators in real time by creating interactive dashboards and reports.
- Apply machine learning and predictive analytics to foresee the trends and make data-driven decisions.

8. IT Support and Maintenance

- Provide 24-hour technical support to resolve system issues and reduce system downtime.
- Perform routine maintenance and upgrading of networks, software, and hardware.
- Ensure the development of disaster recovery procedures and data backups to protect critical company data.

9. E-commerce Solutions

- User-friendly e-commerce websites that are scalable provide great consumer experience.
- Integrate multi-currency support with secure payment gateways for seamless transactions.
- Supply chain and inventory management solution to manage operation processes efficiently.

10. Network and IT Infrastructure Services

- Installation and configuration of enterprise-level networks, with a focus on dependability and high-speed connection.
- Leverage IoT technologies in the betterment of operational efficiency and the enablement of smart devices.
- Provide remote monitoring and management to proactively try to resolve infrastructure problems.

11. Product Testing and Quality Assurance

- Automate test runs and performs manual testing as well before launch, which will help identify and fix bugs.
- Performance and stress tests to be performed for program stability in most of the conditions.
- Quality assurance: Check whether the customer specifications have been validated and followed according to industrial norms.

Chapter 3

Operations Management and Information System Practices

For example, operations management within a technology-based firm would comprise of planning, developing, and distributing products and services with bases in technology to reach a point where optimum output with minimal wastage or compromising of the quality of work is attained. Resource Allocation; The best deployment of financial, technological, and human resources towards finishing a project within an estimated budget and timeline. Automation technologies, such as project management software that keeps track of progress, like Jira or Trello, enable work process automation and increase productivity by simplifying operations that are repetitive. Supply chain management means managing the relationships with vendors to keep everything running smoothly, from software licensing to cloud services, hardware purchases. Performance Indication; KPIs are used to appraise the effectiveness of various procedures in system uptime, delivery schedules, and customer satisfaction.

Information systems are crucial to technology companies for operational and successful reasons, as they promote innovation, enhance decision-making, and make processes more efficient. Information systems integrate procedures, people, and technology in effectively handling and analyzing data to boost corporate productivity. ERP or Enterprise Resource Planning is an important part of the information system of a technology company. ERP systems, such as SAP or Oracle, integrate data from various departments like supply chain management, finance, and human resources on a single platform. This integration reduces redundancies, ensures real-time data availability, and enhances team communication. Another indispensable system involves Customer Relationship Management. This lets an enterprise maintain all client contacts and further assists them in assessing the success of sales, and the delivery of personalized experiences enabled by solutions such as Salesforce. CRM systems support businesses in identifying their clients' needs and building long-term relationships-a critical component of competitive markets. BI solutions such as Tableau and Power BI are also very crucial to IT organizations. These systems let the visualization of complicated data and give managers and executives the information they need to make wise decisions. BI technologies let businesses rapidly respond to shifting market conditions through monitoring KPIs and examining market trends. Other core elements of information system procedures are represented by cloud computing. Clouds such as AWS and Azure provide scalable

Chapter 4

My Contribution

4.1 Methodology

Data Collection:

The research strategy adopted an intensive data collection approach from both primary and secondary sources. The details are as follows:

Primary Sources: The primary data has been directly collected from the team members and professionals of Innovate International Ltd. through organized interviews and conversations. Seminars were conducted with technical officers and department heads on technical difficulties, software deployment procedures, and operational procedures. Information regarding project approaches, tool efficiency, and workflow dynamics was recorded.

Secondary Sources: Secondary data were sourced from internal and external sources. These included:

- Company policies and procedures
- Internal documentation and operational reports
- Documents for the annual business review
- Instructional resources
- Meeting minutes from internal discussions
- The multi-sourced information enabled a deep understanding of the operational plans and challenges within Innovate International Ltd.

4.2 Findings & Analysis

The following were the primary observations I obtained as an intern working at Innovate International Ltd:

- **Operational Efficiency:** Organizations adopt automation technologies using Jira or on cloud platforms like AWS, Azure to support improved productivity.
- **Innovation:** Innovate International provides customized, customer-satisfying software in textile business operations management with smooth coordination among the partners in the value chain of the merchandise preparation process.

- Challenges: Lack of standard project documentation hindered decision making and troubleshooting because relevant information was not easy to locate easily.
- Security and Cybersecurity: While multi-factor authentication and firewalls are good solutions, incident reporting needs to be improved.
- Strengths: Great teamwork, specialized focus on textile software, advanced technological infrastructure.
- Weaknesses: Very dependent on third-party vendors and insufficient project documentation.
- Weakness: Some possible threats include better customer service and developing the textile software market.
- Threats: Competition is fierce within the market; unstable economic conditions end.

4.3 Recommendation

In view of the internship experience at Innovate International Ltd., the following suggestions can be provided to better its operations and performance:

- Centralized documentation mechanism: Much efficiency can be brought in by the creation of a centralized repository for technical data and project documentation. Access to past data for solving problems can be provided through this technology to employees.
- Better Training Programs: Employees should be subjected to training programs occasionally to update their knowledge with regards to new tools and technologies. This flexibility will help maintain the competitive edge in the business.
- Improved Incident Reporting: Cybersecurity issues and operational inefficiencies could be resolved in a prompt manner with the help of an improved incident reporting system. System dependability will be enriched by developing clear processes for recording and resolving issues.
- Pay Attention to Customer Service: Customer satisfaction can be increased, and customer care problems dealt with in a far quicker way through automated customer care by developing comprehensive troubleshooting guides and FAQs.
- Vendor Diversification: Suppliers can be diversified to reduce supply chain disruption and scalability risks by reducing dependence on particular outside vendors.
- Growth within the Textile Software Sector: The experience Innovate International has developed in textile software should be applied to markets overseas by studying the same and offering industry-specific solutions catering to various customers' needs.

4.4 System Monitoring and Optimization

During my internship, I actively participated in system monitoring to ensure smooth and stable operations. I monitored the key performance indicators of the system, which included system uptime, server response time, and resource utilization like CPU, memory, and storage, using software. I regularly reviewed system logs and alarms to find potential bottlenecks that could affect productivity.

- Automated monitoring routines were implemented to reduce alert fatigue and manual supervision.
- Provided performance recommendations to optimize the use of the infrastructure, including load balancing or resource allocation.
- During peak hours, I was involved in the monitoring and optimization of system performance with cross-functional teams.

4.5 Software Deployment and Troubleshooting

Support software deployments and fix associated problems. The contribution to software deployment includes helping with version control, testing of upgrades, and facilitating seamless rollout.

- Exploit deployment pipelines in order to minimize the number of down times and support both automatic and manual deployments.
- Look for deployment errors by going through error logs in search of configuration problems, mismatched dependencies, or whatever other technical hiccups.
- Wrote troubleshooting guides that would reduce deployment time and eradicate delays during future deployments.
- Discussed the updates with QA and Development Teams before the release to ensure functionality and performance would meet requirements.

4.6 Performance Testing and Optimization

I participated in performance and stress testing to identify areas for improvement that would maintain dependability in the system.

- Simulated high-load scenarios to understand how the systems were performing in high demand and thus find out possible failure points.
- Collected performance data such as response times, transaction throughput, resource utilization, and recommended changes to improve scalability.
- Worked with teams to improve back-end operations, also working on the implementation of caching techniques and configuration tuning based on test results. Follow-up testing proved improvements and systems could sustain forecasted user demand increases.

Chapter 5

Conclusion

This internship has been great work experience for me to see how a leading IT solution provider like Innovate International Ltd. works. I have fully involved myself in activities related to system monitoring, technical problem-solving, and project coordination and thus learned a lot about the operation of the company, along with technology infrastructure.

Innovate International is great at applying innovation and advanced technology, even within the niche of textile software, to solve operational problems and provide solutions focused on the client's needs. In any case, incident reporting and centralized documentation are further areas that need attention to increase overall efficiency and scalability.

Besides helping me enhance my technical and problem-solving skills, this internship brought out the importance of cooperation and flexibility in a fast-moving IT environment. My time at Innovate International has been life-changing and an eye-opener that equipped me with the challenges that the IT sector will provide in the future.

Bibliography

- [1] *Innovate International Ltd Mission*, Retrieved from Innovate International Ltd, n.d. [Online]. Available: <https://innovate.llc/>.
- [2] *Innovate International Ltd Vision*, Retrieved from Innovate International Ltd, n.d. [Online]. Available: <https://www.innovate.llc/>.