

SUMMER INTERNSHIP PROGRAM

At



FORTIS ESCORTS HOSPITAL, JAIPUR

From- 6th MAY2024 to 6th JULY 2024

A REPORT BY

KARAN VIKRAM TRIPATHI

Master of Business Administration

HOSPITAL & HEALTH MANAGEMENT

2023-25

under the Mentorship of

Dr PIYUSHA MAJUMDAR

ASSOCIATE PROFESSOR



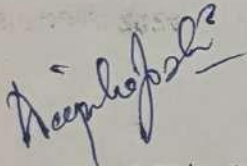
06TH July, 2024**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Karan Tripathi has worked as a Trainee with us in the Dept. of Information Technology from 06 May, 2024 to 6 July, 2024 for the period of Two Month.

His performance during the period in the department was Good.

We wish Him the best for all his future endeavors.

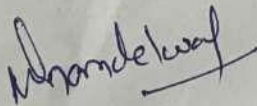
For Fortis Healthcare Limited.

**Authorized Signatory**

Completion Certification from the Organization CERTIFICATE

This is to certify that Karan Vikram Tripathi of MBA-HOSPITAL and HEALTH MANAGEMENT 2023-25 of IIHMR UNIVERSITY, JAIPUR has worked with our organization for her summer internship from 06/05/2024 to 06/07/2024. The overall performance shown by her during the period was excellent/good/average. This certificate is being issued to meet the requirements of the IIHMR University.

Date: 08-07-2024



Name: Navneet Khandelwal

Designation: Unit Head I

FORTIS ESCORTS HOSPITAL
Jawahar Lal Nehru Marg,
Malviya Ngar, JAIPUR-302017

Seal/Stamp of the Organization

IIHMR University Faculty Mentor Approval

This is to certify that **Mr. Karan Vikram Tripathi** of academic year 2023-25 of the **Institute of Health Management Research** has prepared poster with respect to his summer internship held during May – July 2024.

He has carried out work as per the guidelines. His poster is approved for presentation.

Date : 24-07-2024

A handwritten signature in blue ink, appearing to read 'Piyusha'.

Dr. Piyusha Majumdar

Associate Professor

IIHMR University Jaipur

To Study the functioning of Hospital Information system in Fortis

ORGANISATION PROFILE

Fortis Healthcare Limited is a leading integrated healthcare services provider in India. It is one of the largest healthcare organizations in the country with 27 healthcare facilities, 4,300 operational beds and 400 diagnostics centers (including JVs). Fortis Escorts Hospitals, Jaipur, has 275 operational beds, 9 Operation Theatres (OTs), and 106 Intensive Care Unit (ICU) beds. The organization has also recently begun Robotic Joint Re- placement treatment. Mission: To be a globally respected healthcare organization known for Clinical Excellence and Distinctive Patient Care. Vision: To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

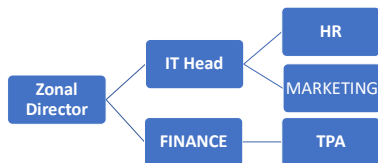
Vision

To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

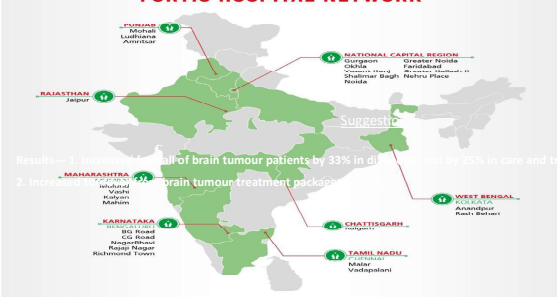
Mission

To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

ORGANOGRAM



FORTIS HOSPITAL NETWORK



Strength

Well trained IT Professionals who Can Handle Complex Technical issues. And a Big server team to resolve HIS related problems.

Weakness

The HIS system problem always persists in every department within the organization. Outdated healthcare facilities, inefficient information systems and lack of manpower.

Opportunities

There is significant potential to leverage digital marketing and telemedicine to increase reach and improve patient engagement post-pandemic

Threats

Competition : Fortis Healthcare faces a lot of competition From Apollo, EHCC, NARAYANA, CK BIRLA, MEDIUM RANGE HOSPITAL. Non Usability OF EHR

Learning

Remote access in hospital IT-Using endpoint central's remote desktops and mobile devices in LAN and WAN. It is a web-based tool that enables access to computers anywhere in the field.

Resolving Recurring IT Issues: Addressed and resolved recurring IT issues that commonly arise within the hospital, providing consistent support to maintain system functionality and user satisfaction.

Functioning of HIS

- System Overview:** Understand objectives and key features of the HIS.
- Implementation Process:** Review planning, deployment phases, selection process, timelines, stakeholders, challenges, and solutions.
- Operational Use and User Feedback:** Observe daily operations integration and collect feedback from staff on system use and efficiency.
- Data Management and Security:** Assess data accuracy and review security protocols for patient data protection and privacy compliance.
- Benefits, Challenges, and Recommendations:** Identify HIS advantages and ongoing challenges, and provide recommendations for future improvements

Theoretical Understanding

Health Informatics: Optimal use of IT to improve patient care. Systems Theory: Interconnectedness of hospital departments and information flow. Change Management: Managing transitions to new IT systems smoothly.

Practical Understanding

Experience with HIS and telemedicine platforms. Identifying and resolving IT issues. Ensuring the security and accessibility of patient data. Identifying inefficiencies and areas for improvement. Continuously assessing and maintaining IT system performance

Usefulness of Internship

Practical Experience: Interns gain hands-on experience with healthcare IT systems, including electronic health records (EHR), hospital management systems, and patient data management, which are crucial in the medical field.

Gain Knowledge about Hospital Services and Hospital IT.

Objectives

Hospital Information System (HIS) is used to ensure the security and confidentiality of patient data. Additionally, hospital IT engineers are always available to resolve any problems related to HIS.

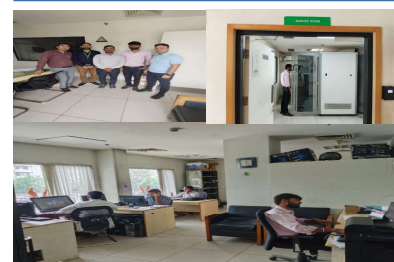
Gap Analysis

While working in the hospital, I observed that the Hospital Information System (HIS) is not functioning properly in any areas of the hospital. All departments, including finance, marketing, and others, are suffering due to issues with the HIS.

In the hospital, outdated systems and LAN networks were used extensively, compared to Wi-Fi. This resulted in slow operation of the patient feedback system, affecting various departments reliant on the HIS (Hospital Information System).

Suggestions

Electronic Health Records (EHR) System: Implement or upgrade an EHR system to streamline patient data management, ensuring it is secure, easily accessible, and integrated across departments.



WEEKLY REPORT – 1

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -1

FROM: - 7th May 2024 to 13th May 2024

ACTIVITY DONE	1) Using azure app to check licence and user details in hospital 2) Using H.I.S system to applications used to manage hospital operations. 3) Using manage engine (end point central unified endpoint management & security solution) and marze systems to resolve organization computer system's.
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1) Digital health 2) Quality of management (Data management)
GAPS IDENTIFIED ON THE WORKING AREA	1) Bad connectivity of His system. 2) Proper medical record is not available.

SUGGESTIONS FOR IMPROVEMENT	1)Improve connectivity issues with the hospital information system. 2)Encourage collaboration and knowledge sharing among team members through regular meeting brainstorming sessions or online forums.
PLAN FOR THE NEXT WEEK	1)Learning about EHR (electronic health record) 2)EMR(electronic medical record)

WEEKLY REPORT – 2

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -1

FROM: - 13th May 2024 to 20th May 2024

ACTIVITY DONE	1) Learning about different types of software using in hospital. 2) Working with HIS expert and learning more about HIS system.
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1) Digital health 2) Quality of management (Data management)
GAPS IDENTIFIED ON THE WORKING AREA	1) Bad connectivity of His system. 2) Proper medical record is not available.

SUGGESTIONS FOR IMPROVEMENT	1) Lack of awareness. 2) Lack of time management.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 3

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -3

FROM: - 21th May 2024 to 27th May 2024

ACTIVITY DONE	1) Learning about different types of software using in hospital. 2) Working different Departments to Resolve HIS issues.
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1)Digital health 2)Quality of management (Data management)
GAPS IDENTIFIED ON THE WORKING AREA	1)Bad connectivity of His system. 2) Proper medical record is not available.

SUGGESTIONS FOR IMPROVEMENT	3) Lack of awareness. 4) Lack of time management.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 4

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -4

FROM: - 28th May 2024 to 3rd June 2024

ACTIVITY DONE	1. i. Learning about different types of software using in hospital. ii. Working different Departments to Resolve HIS issues. iii. Working with server team .
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1)Digital health 2)Quality of management (Data management)
GAPS IDENTIFIED ON THE WORKING	1) Bad connectivity of His system. 2) Proper medical record is not available. 3) Lack of guidance.

AREA	
SUGGESTIONS FOR IMPROVEMENT	5) Lack of awareness. 6) Lack of time management.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 5

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -5

FROM: - 4th june 2024 to 10th june 2024

ACTIVITY DONE	1) Learning about different types of software using in hospital. 2) Working different Departments to Resolve HIS issues. 3) Using HTML to find un identify system in department.
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1)Digital health 2)Quality of management (Data management)
GAPS IDENTIFIED ON THE WORKING AREA	1) Bad connectivity of His system. 2) Proper medical record is not available. 3) Lack of guidance.

SUGGESTIONS FOR IMPROVEMENT	4) Lack of awareness. 5) Lack of time management.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 6

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -6

FROM: - 11th June 2024 to 17th June 2024

ACTIVITY DONE	1. Learning about different types of software using in hospital. 2. Using HTML to find un identify system in department. 3. Continued with the previously assigned task ,no new task assigned.
LINKING CLASSROOM THEORY WITH PRACTICE AT	1)Digital health 2)Quality of management (Data management)
ORGANISATION	

GAPS IDENTIFIED ON THE WORKING AREA	1. Bad connectivity of His system. 2. Proper medical record is not available. 3. Lack of guidance.
SUGGESTIONS FOR IMPROVEMENT	4. Lack of awareness. 5. Lack of time management.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 7

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -7

FROM: - 19th June 2024 to 25th June 2024

ACTIVITY DONE	1. Using HTML to find and identify system in department. 2. Keeping track of all hardware assets within the organization. 3. Managing hardware inventory and planing for future hardware needs.
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1)Digital health 2)Quality of management (Data management)

GAPS IDENTIFIED ON THE WORKING AREA	1. Bad connectivity of His system. 2. Lack of guidance. 3. Lack of awareness.
SUGGESTIONS FOR IMPROVEMENT	4. Hospital should established training centers for HIS. 5. Hospitals should implement EMR and EHR.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

WEEKLY REPORT – 8

NAME OF THE ORGANISATION: - Fortis hospital Jaipur (Rajasthan)

DEPARTMENT FOR SUMMER INTERNSHIP: - Hospital IT

PROJECT- HIS (Hospital information management system).

NAME OF THE STUDENT: - Karan Vikram Tripathi

ROLL NO: - 1727

STREAM: - MBA(Hospital and Health care management)

WEEK NUMBER: -8

FROM: - 26th June 2024 to 6th July 2024

ACTIVITY DONE	1) Most of the IT issues occurs same and we are here to resolve this. 2) Keeping track of all hardware assets within the organization. 3) Managing hardware inventory and planing for future hardware needs. 4) Same type of work I am done in the organization like(Data entry ,password reset ,e.t.c.)
LINKING CLASSROOM THEORY WITH PRACTICE AT ORGANISATION	1)Digital health 2)Quality of management (Data management)

GAPS IDENTIFIED ON THE WORKING AREA	1) Bad connectivity of HIS system. 2) Lack of guidance. 3) Hardware devices working Slow.
SUGGESTIONS FOR IMPROVEMENT	a. Hospital should established training centers for HIS. b. Hospitals should implement EMR and EHR.
PLAN FOR THE NEXT WEEK	1) Learning about EHR (electronic health record) 2) EMR (electronic medical record).

COMPILED REPORT

Name of the Organisation: FORTIS ESCORTS HOSPITAL, JAIPUR

Area/ Department/ Project of Summer Internship Program:

Name of the Student: Karan Vikram Tripathi

Roll no: 1727

Stream: HOSPITAL & HEALTH MANAGEMENT

Activity Done	1. Using Azure App to Check License and User Details in the Hospital: Utilized the Azure app to verify and manage software licenses and user details, ensuring compliance with licensing agreements and maintaining accurate user records. 2. Using H.I.S System for Applications Used to Manage Hospital Operations: Employed the Hospital Information System (HIS) to oversee various applications that streamline hospital operations, including patient management, scheduling, and billing processes.
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3. Using Manage Engine (Endpoint Central Unified Endpoint Management & Security Solution) and Marze Systems to Resolve Organization Computer Systems: Implemented Manage Engine and Marze Systems to troubleshoot and resolve issues related to the hospital's computer systems, enhancing system performance and security.

4. Learning About Different Types of Software Used in the Hospital: Gained knowledge about the diverse software applications utilized within the hospital to support various operational, clinical, and administrative functions.

5. Working with HIS Expert and Learning More About the HIS System: Collaborated with an HIS expert to deepen understanding of the Hospital Information System, learning about its features, functionalities, and best practices for effective usage.

6. Working in Different Departments to Resolve HIS Issues: Assisted various departments in addressing and resolving issues related to the HIS, ensuring smooth operation and minimal disruption to hospital activities.

7. Working with the Server Team:

Collaborated with the server team to manage, maintain, and troubleshoot server-related issues, ensuring the reliability and performance of the hospital's IT infrastructure.

8. Using HTML to Find and Identify Systems in the Department: Applied HTML skills to locate and identify systems within departments, aiding in the organization and management of IT assets.

9. Keeping Track of All Hardware Assets Within the Organization: Maintained a comprehensive inventory of all hardware assets within the hospital, tracking their status, location, and usage to ensure efficient asset management.

10. Managing Hardware Inventory and Planning for Future Hardware Needs: Oversaw hardware inventory management and developed plans to meet future hardware requirements, ensuring the hospital has the necessary equipment to support its operations.

11. Resolving Recurring IT Issues: Addressed and resolved recurring IT issues that commonly arise within the hospital, providing consistent support to maintain system functionality and user satisfaction.

	12. Handling Routine IT Tasks: Performed routine IT tasks such as data entry, password resets, and other support activities, contributing to the smooth operation of the hospital's IT systems. 13. Most of the IT Issues Occur Repeatedly and We Are Here to Resolve Them: Many IT-related issues are recurrent in nature, and our team is dedicated to identifying, troubleshooting, and resolving these problems to ensure continuous system functionality and user satisfaction. 14. Keeping Track of All Hardware Assets Within the Organization: Meticulously tracked all hardware assets within the organization, maintaining accurate records of their status, location, and usage to facilitate effective asset management. 15. Managing Hardware Inventory and Planning for Future Hardware Needs: Efficiently managed the hardware inventory, ensuring optimal utilization of resources and planning for future hardware requirements to support the hospital's operations and growth. 16. Performing Routine IT Tasks: Consistently carried out routine IT tasks such as data entry, password resets, and other support activities, contributing to the seamless operation of the hospital's IT
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	systems and providing timely assistance to users.
Linking theory (Classroom learning) with practice at your organisation	1) Digital health a) Supporting digital health in hospitals requires a strategic and comprehensive approach that encompasses various aspects of healthcare delivery , technology , and patient engagement) b) Digital transformation refers to the digital technology changes used to benefit society and the healthcare industry. Healthcare systems need to use digital technology for innovative solutions to improve healthcare delivery and to achieve improvement in medical problems. The digital transformation of healthcare includes changes related to the internet, digital technologies, and their relation to new therapies and best practices for better health management procedures. The quality control of massive data collected can help improve patients' well-being and reduce the cost of services. Digital technologies will also impact medical education, and experts will deceive new ways to train people. Now in this way, practitioners will face new opportunities. Digital transformation is an ongoing process that can create opportunities in the health sector, provided the necessary infrastructure and training are available.

2) Quality of management (Data management).

a) Quality management in hospital IT systems refers to the systematic processes and practices implemented to ensure that healthcare services meet established standards of excellence. This involves continuous monitoring, evaluation, and improvement of healthcare processes and outcomes to enhance patient care, operational efficiency, and compliance with regulatory requirements. Quality management encompasses various activities, including performance monitoring, compliance checks, clinical audits, and the integration of clinical decision support systems (CDSS) to ensure that healthcare delivery is effective, safe, and patient- care.

b) Data management in hospital IT systems involves the systematic handling of data to ensure its accuracy, security, and accessibility throughout its lifecycle. This includes data collection, storage, retrieval, processing, and analysis to support clinical and administrative functions. Effective data management ensures that patient information is reliable, up-to-date, and protected from unauthorized access. It also involves implementing data governance policies, ensuring interoperability between systems, and utilizing data analytics tools to

	derive actionable insights for improving healthcare delivery and operational efficiency.
Gaps identified on the working area.	1. Bad Connectivity of HIS System: The Hospital Information System (HIS) experiences poor connectivity, leading to frequent disruptions, slow performance, and difficulties in accessing vital patient and operational information. This connectivity issue hampers the efficiency of hospital staff and affects the overall quality of service delivery. 2. Proper Medical Records Are Not Available: There is a significant issue with the availability and completeness of medical records, resulting in incomplete patient documentation. This lack of proper medical records can compromise patient care, lead to medical errors, and complicate administrative tasks such as billing and insurance claims.
Suggestions for improvement	1. Improve Connectivity Issues with the Hospital Information System (HIS): Implement measures to enhance the connectivity and performance of the HIS. This can include upgrading network infrastructure, increasing bandwidth, optimizing server performance, and deploying

	redundancy measures to prevent downtime. Regular maintenance and monitoring of the network can also help identify and address connectivity issues promptly. 2. Encourage Collaboration and Knowledge Sharing Among Team Members: Foster a culture of collaboration and knowledge sharing by organizing regular meetings, brainstorming sessions, or creating online forums where team members can discuss challenges, share insights, and propose solutions. This approach will help in leveraging collective expertise, improving problem-solving capabilities, and ensuring that best practices are disseminated throughout the team.
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Signature of the Student

Karan + xi Pathi

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Approved by the IIHMR University's Mentor