INTERNSHIP AT

URMIL DENTAL HOSPITAL, JAIPUR

Internship report submitted to

The IIHMR University, Jaipur

For the partial fulfillment for the award of the degree of

Master of Business Administration (MBA) in

Hospital & Health Management

By

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2025

Introduction

The internship was undertaken as part of a technology and healthcare innovation initiative to design and develop an indoor navigation system tailored for hospital environments. The need for such a system arises from the complexity of hospital layouts, which often causes delays and confusion for patients, visitors, and even staff. This internship focused on building a digital solution using AR, mobile-based mapping, and user-centric interfaces to enable accurate indoor navigation.

The internship was carried out under the guidance of a technology consultancy working with healthcare organizations. The development was primarily done using Unity, WebGL, and JavaScript, along with integration of real hospital floorplans.

Objectives Of Internship

- To design a user-friendly indoor navigation interface for hospital settings.
- To implement a floor-wise digital mapping system using SVG or 3D models.
- To integrate wayfinding features such as destination selection, real-time location updates, and shortest path visualization.
- To test the usability and accuracy of the system through on-site visits and feedback.
- To identify technological, operational, and human barriers in implementing indoor navigation in healthcare settings.

Organizational Profile

Urmil Dental Hospital situated at Pratap Nagar, Jaipur, Rajasthan with a vision to shape the healthiest and brightest smile, Urmil Dental Care has become the best dental care clinic in the healthcare sector. Our dental hospital is equipped with multi-speciality practices in the patient facilities, state-of-the-art equipment, and dental laboratories, providing our patients with flawless and optimum oral care. Mission of providing exceptional and best dental care to patients. We aim to stay ahead with cutting-edge dentistry with a team of passionate and qualified professionals and provide an atmosphere of trust and compassion to our patients. Envision a world that is transformed with our high-quality dental services. We are driven by a vision to provide affordable, safe, and accessible oral services to our patients with a clear objective of achieving patient-centric successful outcomes.

Services Provided by the Organization

- Dental Implants
- Root Canal Treatment
- Tooth Extraction
- Teeth Bleaching
- Teeth Straightening

Important Tasks Undertaken

- Requirement Gathering & Research: Studied common pain points for patients and visitors in hospital navigation. Reviewed existing indoor positioning systems (IPS).
- Digital Map Development: Created hospital floor maps from blueprints using SVG and 3D modeling tools. Defined POIs (Points of Interest) like OPDs, labs, wards, etc.
- System Design: Developed the prototype using Unity WebGL for cross-platform deployment. Implemented interactive features using JavaScript and LeafletJS for 2D maps.
- Pathfinding Implementation: Integrated A* algorithm to compute the shortest path from origin to destination.
- UI/UX Development: Designed intuitive UI screens with Figma and converted them into interactive mobile-friendly interfaces.
- Testing & Debugging: Performed multiple simulation rounds to ensure path accuracy and UI responsiveness.
- Stakeholder Interaction: Conducted interviews with hospital staff and patients for feedback and improvement suggestions.

Important Takeaways from Internship

- Technical Learning: Gained practical experience in Unity, WebGL, JavaScript, and pathfinding algorithms.
- Problem Solving: Understood how real-world constraints like signal dropouts and blueprint inaccuracies affect system performance.
- Healthcare Insight: Learned how human factors like stress, urgency, and digital literacy affect the adoption of indoor navigation in hospitals.
- Design Thinking: Applied user-centric design principles to build an intuitive and accessible navigation system.
- Team Collaboration: Worked effectively in cross-functional teams including designers, developers, and hospital administrators.
- Scalability Awareness: Understood how to scale solutions for multi-floor and multi-building healthcare facilities.