INTERNSHIP REPORT

A report submitted in partial fulfillment of the requirements for the Award of Degree

of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING
(GAMING TECHNOLOGY)

by

VEDANG GUPTA – 21BCG10122

DURATION: FROM 30/09/24 TO 08/11/24

ACADEMIC YEAR - 2024-2025

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INTERNSHIP CERTIFICATE

This is to certify that the "INTERNSHIP REPORT" submitted by VEDANG GUPTA (21BCG10122) for the internship done by him/her during the academic year 2024-2025 from 30-09-2024 to 08-11-2024(1 Month), is the partial fulfillment of the requirements for the awarding the degree of B.Tech – CSE (GAMING TECHNOLOGY).

Internship Completed By
Vedang Gupta (21BCG10122)

Program Chair
Dr. Gunjan Ansari

INDEX

1.	**FRONT PAGE**	(Page – 1)
2.	**UNIVERSITY CERTIFICATE PAGE**	(Page – 2)
3.	**INDEX**	(Page – 3)
4.	**INTERNSHIP CERTIFICATE**	(Page – 4)
5.	**ACKNOWLEDGMENT**	(Page – 5)
6.	**ABSTRACT**	(Page – 6)
7.	**CHALLENGES FACED & EXPERIENCE GAINED**	(Page – 7 - 9)
8.	**WEEKLY PROGRESS OF INTERNSHIP ACTIVITIES**	(Page – 10 - 11)
9.	**CONCLUSION**	(Page – 12)
10.	**BIBLIOGRAPHY**	(Page – 13)
11.	**ANNEXURE - I**	(Page – 14 - 16)

Hindireadings

CERTIFICATE OF INTERNSHIP COMPLETION

This is to certify that

Vedang Gupta

Has successfully completed the **Frontend Architecture and UI/UX Design** Internship Program at **Hindireadings.com** from **30th September** to **8th November 2024**.

Certificate ID:
PJ1GZB18Y

Date Of Issue:
Nov 17th, 2024

For validation, contact: support@hindireadings.com

ACKNOWLEDGEMENT

I, Vedang Gupta, am grateful to VIT Bhopal for giving me this opportunity to learn and explore real word problems, solutions and workings of various industries. This experience would not have been possible without the due diligence of the Hindireadings team, guiding students in their wake to accomplish a smooth learning experience. Further, I would also like to thank my parents for making this experience possible in the first place and providing me with all the resources required to undergo this Industrial Internship Program.

VEDANG GUPTA (21BCG10122)

ABSTRACT

This report provides a detailed account of the work undertaken during my internship, which centered on the migration of the Hindireadings website from WordPress to Next.js. The primary focus of this project was to conceptualize and implement a plan for transitioning the website to a modern development stack, addressing both technical and user-oriented aspects. Key deliverables included the creation of a comprehensive system design diagram that mapped out the new architectural framework and the development of Figma prototypes to guide the user interface redesign. These contributions were pivotal in streamlining the migration process and achieving significant improvements in the website's performance, maintainability, and user experience. Through this internship, I gained invaluable practical experience in web development, system architecture, and UI/UX design, equipping me with a deeper understanding of the processes and challenges involved in modernizing web platforms.

CHALLENGES FACED AND EXPERIENCE GAINED

(I) CHALLENGES FACED

The migration of a website from WordPress to Next.js presented a variety of challenges, each of which required thoughtful analysis and strategic problem-solving. One of the initial hurdles was understanding the complexities of the existing WordPress system, which included several custom plugins and themes. Reverse-engineering these components to ensure that all functionalities were preserved in the Next.js environment was a time-intensive and technically demanding task. Additionally, the project demanded careful attention to data migration, as ensuring the integrity of content during the transition was critical.

Another significant challenge was designing a scalable system architecture. Next.js introduced new opportunities for performance improvements, but it also necessitated careful consideration of server-side rendering, static generation, and API integration. Developing a comprehensive system design diagram required a thorough understanding of how these elements interact in a real-world application.

From a design perspective, creating Figma prototypes that met the aesthetic and functional expectations of stakeholders while adhering to modern UI/UX principles was another key challenge. Balancing creativity with usability, while ensuring alignment with brand guidelines, required regular feedback and iteration.

Time management emerged as an overarching challenge. The internship operated within tight deadlines, necessitating efficient planning and prioritization. Coordinating with developers and other team members also required strong communication skills to ensure alignment across different aspects of the project.

(II) EXPERIENCE GAINED

This internship was a deeply enriching experience that provided valuable insights into the lifecycle of a web development project. One of the most significant learning outcomes was the ability to analyze and design system architectures. The process of creating a system design diagram for the Next.js migration not only strengthened my technical understanding of modern web frameworks but also enhanced my ability to think critically about scalability, performance, and maintainability.

Through the development of Figma prototypes, I honed my skills in UI/UX design. I gained hands-on experience with user-centered design principles, including creating wireframes, interactive components, and visually appealing layouts that improve the user experience. This work also deepened my appreciation for how design and development teams collaborate to create cohesive and functional products.

Working on this project also enhanced my problem-solving and research skills. Whether it was troubleshooting data inconsistencies during migration or addressing challenges in optimizing server-side rendering, the internship demanded a proactive and solution-oriented mindset.

Finally, this experience highlighted the importance of clear communication and teamwork. Regularly discussing progress, challenges, and potential solutions with stakeholders and team members improved my ability to articulate ideas effectively and adapt to constructive feedback. These skills, coupled with the technical expertise gained, have equipped me to contribute meaningfully to similar projects in the future.

(III) SECTION SUMMARY

Helping a website migrate from WordPress to Next.js was a creatively and technically challenging project that presented a number of obstacles, all of which aided in my professional development. Understanding the complexities of the current WordPress system was one of the main obstacles. Reverse-engineering these components to guarantee that all features were smoothly transferred to the Next.js framework took time and technical expertise because there were many bespoke plugins and themes in use. Since any mistakes could have jeopardized the dependability of the material in the new system, maintaining data integrity during the migration was equally important.

Another significant obstacle was architectural design. Advanced capabilities like server-side rendering and static generation were introduced by Next.js, which greatly improved efficiency but also necessitated careful preparation. Designing a system architecture that could balance scalability, speed, and maintainability involved rigorous research and analysis. Translating this into a detailed system design diagram was an intellectually stimulating process that demanded a strong grasp of modern web development practices.

Overall, this internship was a transformative experience that not only expanded my technical expertise in system design and web development but also honed my soft skills, such as communication, time management, and teamwork. These learnings have prepared me to take on similar challenges in future projects with confidence and competence.

WEEKLY PROGRESS OF INTERNSHIP ACTIVITIES

	DATE	DAY	LEARNED/EXPERIENCED TOPIC / MODULE / TASK
1ST WEEK	30/09/2024	Monday	Studied Site Architecture
	01/10/2024	Tuesday	Learned About Wordpress
	02/10/2024	Wednesday	Weekly Meeting
	03/10/2024	Thursday	Studied Design Principles
	04/10/2024	Friday	Assessed Area Of Improvements

	DATE	DAY	LEARNED/EXPERIENCED TOPIC / MODULE / TASK
2ND WEEK	07/10/2024	Monday	Worked On Site Architecture Diagram (Prototype 1)
	08/10/2024	Tuesday	Finished Site Architecture Diagram (Prototype 1)
	09/10/2024	Wednesday	Weekly Meeting
	10/10/2024	Thursday	Aggregated Feedback
	11/10/2024	Friday	Further Design Study

	DATE	DAY	LEARNED/EXPERIENCED TOPIC / MODULE / TASK
3RD WEEK	14/10/2024	Monday	UI/UX Improvements
	15/10/2024	Tuesday	Finished Work On Site Architecture Diagram (Prototype 2)
	16/10/2024	Wednesday	Weekly Meeting
	17/10/2024	Thursday	Aggregated Feedback
	18/10/2024	Friday	Site Architecture Finalized

	DATE	DAY	LEARNED/EXPERIENCED TOPIC / MODULE / TASK
4TH WEEK	21/10/2024	Monday	Final Touches
	22/10/2024	Tuesday	Weekly Meeting
	23/10/2024	Wednesday	Worked On Figma Design Of Landing Page
	24/10/2024	Thursday	Worked On Figma Design Of Landing Page
	25/10/2024	Friday	Worked On Figma Design Of Blog Page

	DATE	DAY	LEARNED/EXPERIENCED TOPIC / MODULE / TASK
5TH WEEK	04/11/2024	Monday	Worked On Figma Design Of About Page
	05/11/2024	Tuesday	Worked On Figma Design Of Single Blog Page
	06/11/2024	Wednesday	Worked On Figma Design Of Contact Page
	07/11/2024	Thursday	Final Weekly Meeting
	08/11/2024	Friday	Final Feedback Aggregation

CONCLUSION

During this internship, I was able to contribute to a major project—the conversion of a website from WordPress to Next.js—and gain a deeper grasp of web development, system design, and UI/UX principles. The difficulties encountered during the project—from comprehending the intricacies of the current WordPress architecture to creating scalable solutions and intuitive user interfaces—were crucial in promoting both professional and personal development.

The development of a thorough system design diagram provided information on contemporary web architecture and the significance of scalability, performance, and maintainability planning. Concurrently, I was able to apply and improve user-centered design concepts through the creation of Figma prototypes, guaranteeing a smooth user experience in line with project objectives. These deliverables not only contributed to the success of the migration but also enhanced my ability to bridge the gap between design and technical implementation.

Moreover, the experience highlighted the importance of effective communication and teamwork. Collaborating with team members to align efforts, adapt to feedback, and troubleshoot challenges underscored the value of collaborative problem-solving in achieving project objectives within tight deadlines.

Through this internship, I acquired practical experience in modern web technologies, strengthened my problem-solving skills, and developed a deeper appreciation for the interconnected roles of design and development in building impactful web applications. This experience has not only enriched my technical expertise but also prepared me to contribute meaningfully to similar projects in the future, equipping me with the skills and confidence to navigate complex, real-world challenges.

BIBLIOGRAPHY

TOOLS AND TECHNOLOGIES USED

- Next.js Documentation – Official documentation for understanding the framework, features, and implementation.

  URL: https://nextjs.org/docs

- Figma – Design and prototyping platform used for creating UI/UX prototypes.

  URL: https://www.figma.com/

- WordPress Documentation – Resources for understanding the existing system's plugins and theme structure.

  URL: https://wordpress.org/support/

TUTORIALS REFERRED

- A&JSmart, *"Figma UI Design Tutorial: Get Started in Just 24 Minutes!"*, Youtube, 08 Dec, 2020.

  URL: https://www.youtube.com/watch?v=FTFaQWZBqQ8

- A&JSmart, *"UX Design: How To Get Started (A Full Guide)"*, Youtube, 23 Jun, 2020.

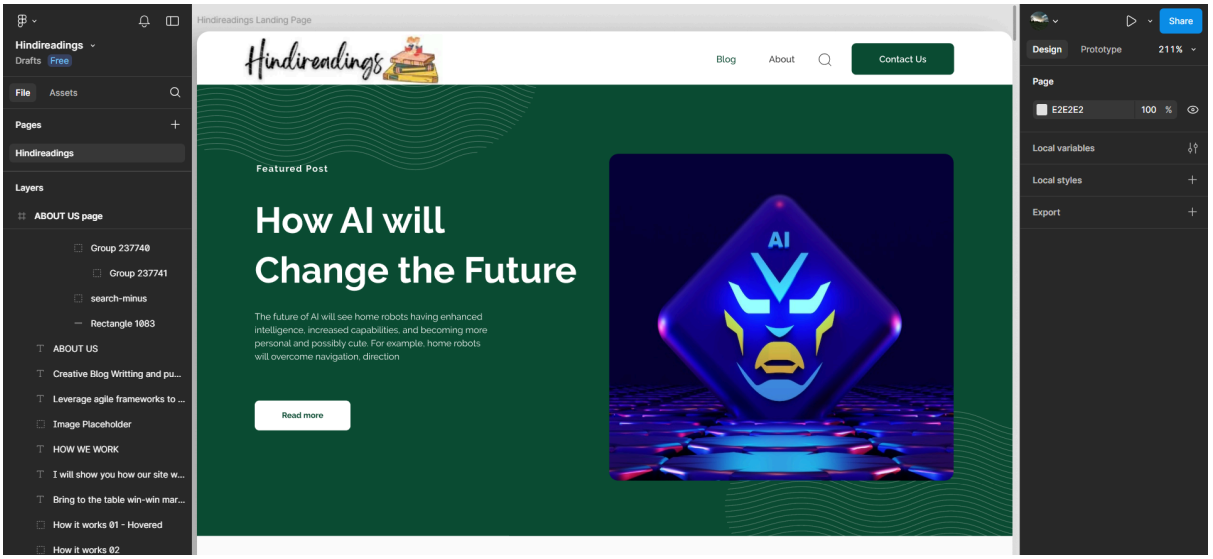
  URL: https://www.youtube.com/watch?v=t0aCoqXKFOU

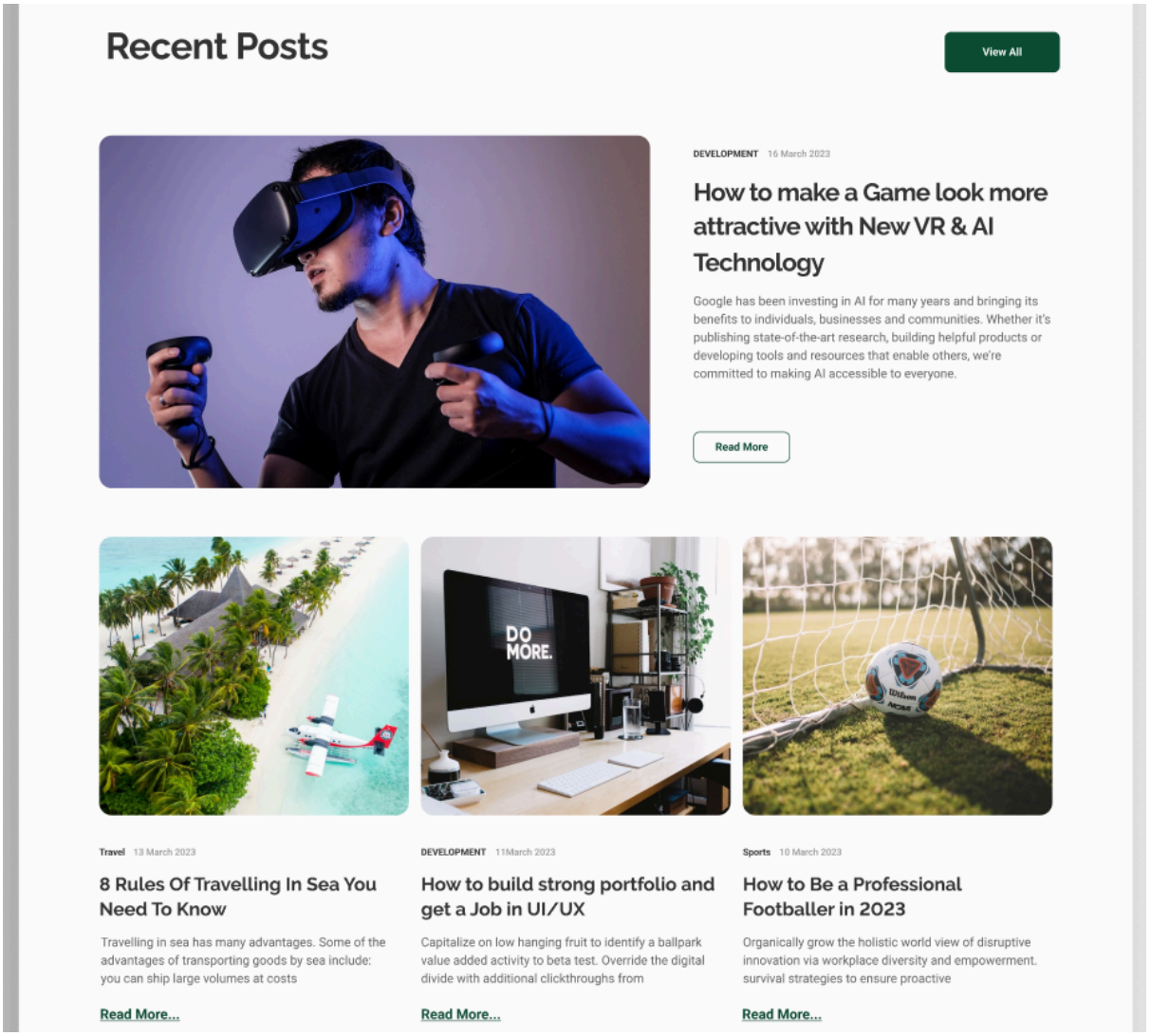
INTERNAL RESOURCES

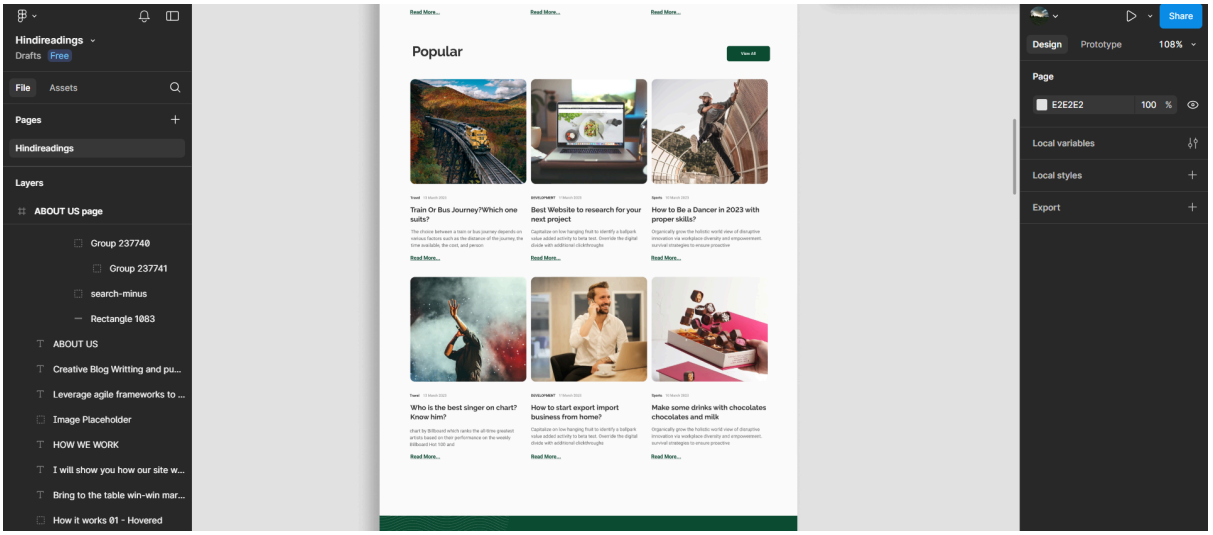
- Internal documentation detailing system requirements and project guidelines.
- Meeting notes and training material provided by the team.

ANNEXURE -I

Screenshots of proposed design:



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File
Assets
Pages
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Layers
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Group 237740
Group 237741
search-minus
Rectangle 1083
ABOUT US
Creative Blog Writting and pu...
Leverage agile frameworks to ...
Image Placeholder
HOW WE WORK
I will show you how our site w...
Bring to the table win-win mar...
How it works 01 - Hovered
Popular
Train Or Bus Journey?Which one suits?
Best Website to research for your next project
How to Be a Dancer in 2023 with proper skills?
Who is the best singer on chart? Know him?
How to start export import business from home?
Make some drinks with chocolates chocolates and milk
Share
Design
Prototype
108%
Page
E2E2E2
100
%
Local variables
Local styles
Export

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