UTM
UNIVERSITI TEKNOLOGI MALAYSIA

INTERNSHIP AT ROCHE

INDUSTRIAL SITE VISIT

THUVAARITHA SIVARAJAH / 17 JANUARY 2025

ABOUT ME

Thuvaaritha Sivarajah

- 4th Year Bioinformatics Student in Universiti Teknologi Malaysia
- Roche PDIE Intern in Enterprise Engineering

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INTRODUCTION TO ROCHE MALAYSIA

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Roche Malaysia Sdn. Bhd

Company Overview

- A leading biotechnology company focusing on research-driven healthcare, providing innovative diagnostic and therapeutic solutions
- Has been present in Malaysia since 1972

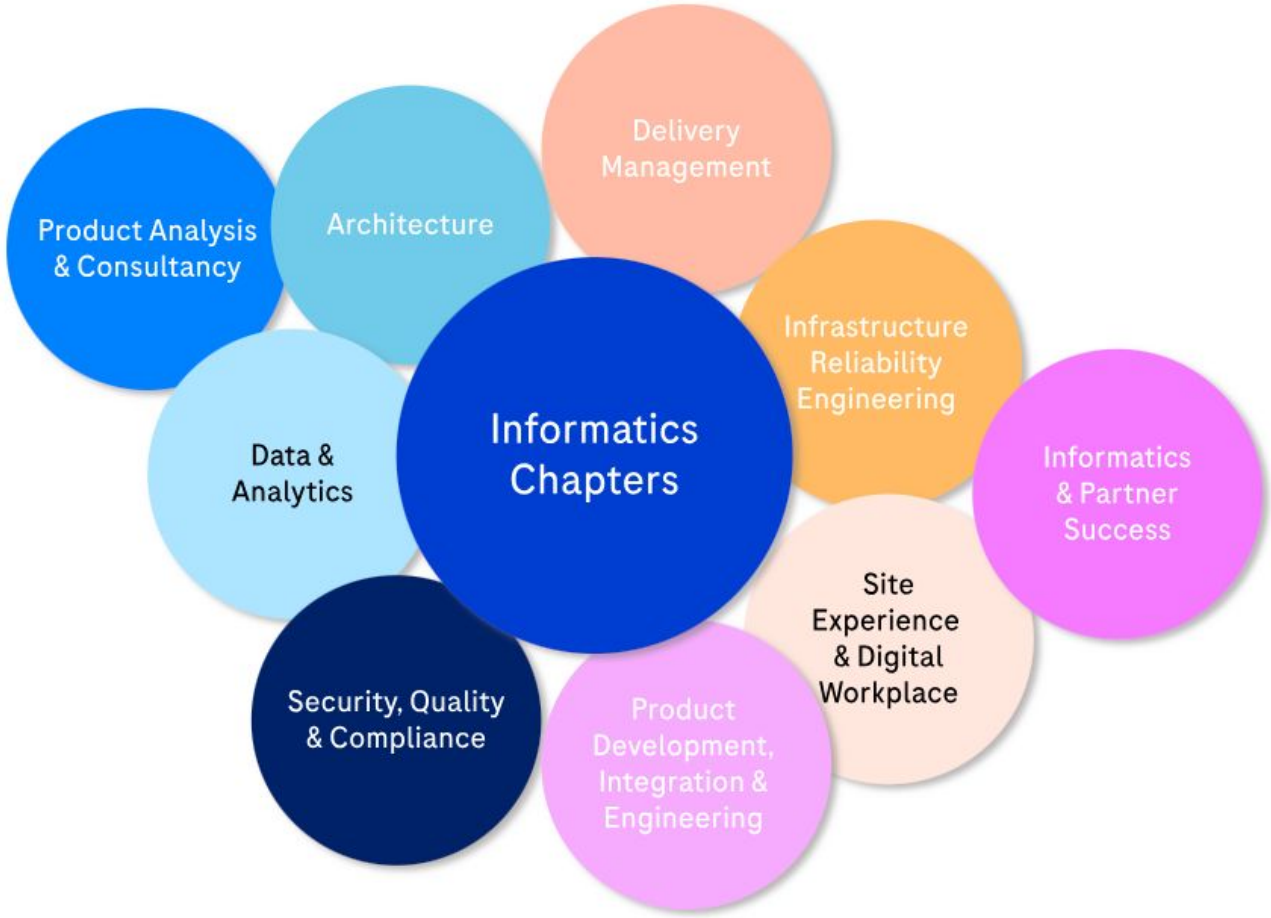
Core Businesses

- **Pharmaceuticals :** Offers a range of medications in various therapeutic areas such as oncology, immunology, infectious diseases and neuroscience.
- **Diagnostics :** Provides advanced diagnostic tools and solutions to enhance patient care, including clinical chemistry, immunoassays, and molecular diagnostics.

Informatics in Roche

- Integrates cutting-edge data management, computational tools, and AI technologies to accelerate drug discovery, improve patient care and advance precision medicine

Roche Informatics Chapters



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PRODUCT DEVELOPMENT, INTEGRATION & ENGINEERING CHAPTER

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Product Development, Integration & Engineering (PDIE) Chapter

focuses on driving excellence in innovative software product development within Roche Informatics

Chapter Overview

Purpose:
Provides expertise in software development, integration, and technology leadership to enhance patient outcomes.

Capabilities :

- Software Engineering
- Enterprise Engineering
- Hyper Automation & Digital Integration

Strategic Themes

- Smart Spending
- Collaboration
- Capability Development
- People-Centric Approach
- Workforce & Sourcing
- Site Synchronization

Structure and Reach

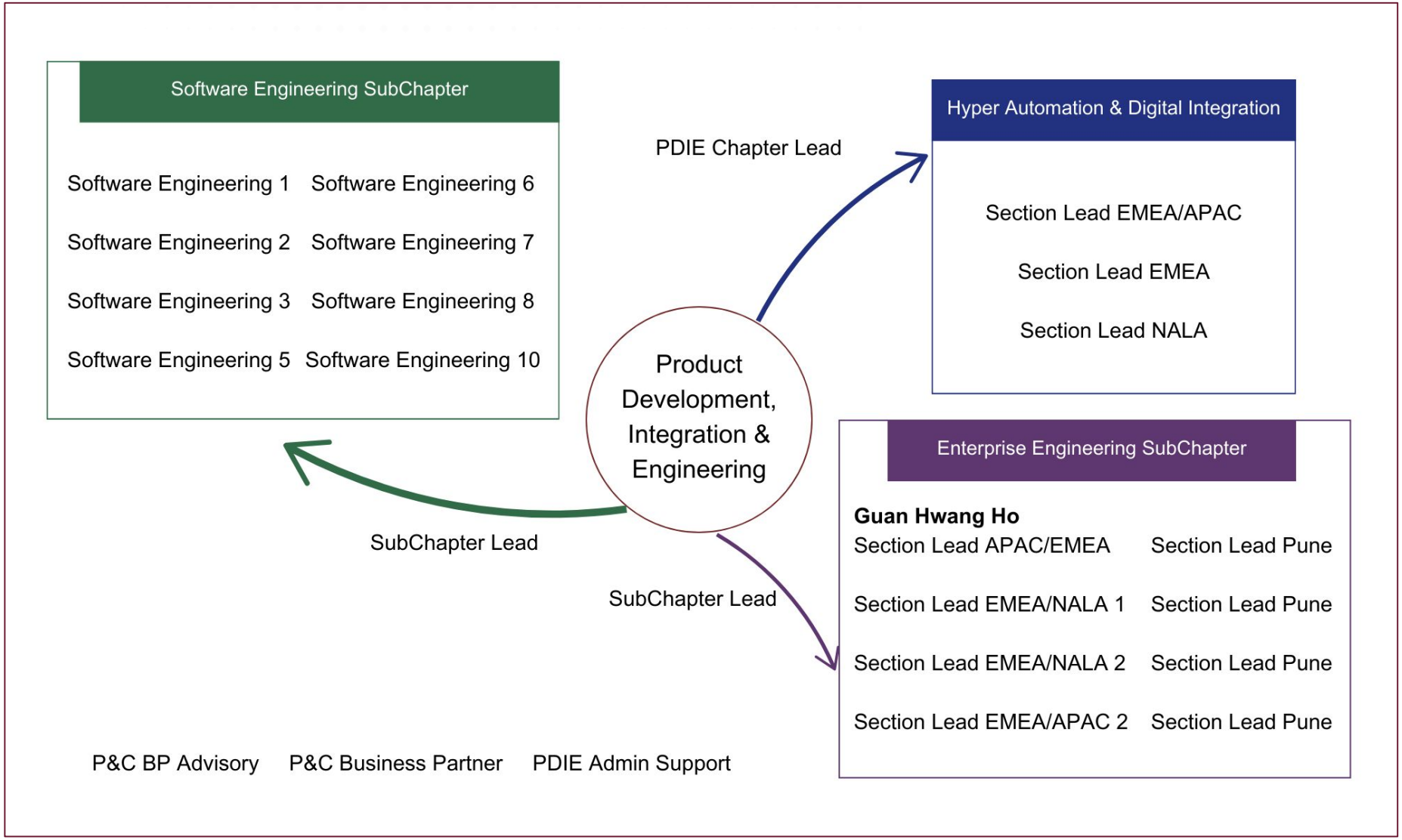
- 18 sections
- 2 sub-chapters
- 300 internal members
- over 1500 external members

Global Presence :
Team members are distributed across 13 countries, with key sections in regions like Poland, Malaysia, Spain, and the United States.

Vision

PDIE aspires to be a hub for diverse talents, cutting-edge expertise, impactful decisions, and innovative trends that contribute to Roche's mission of addressing patients' needs effectively.

Chapter Organization Chart



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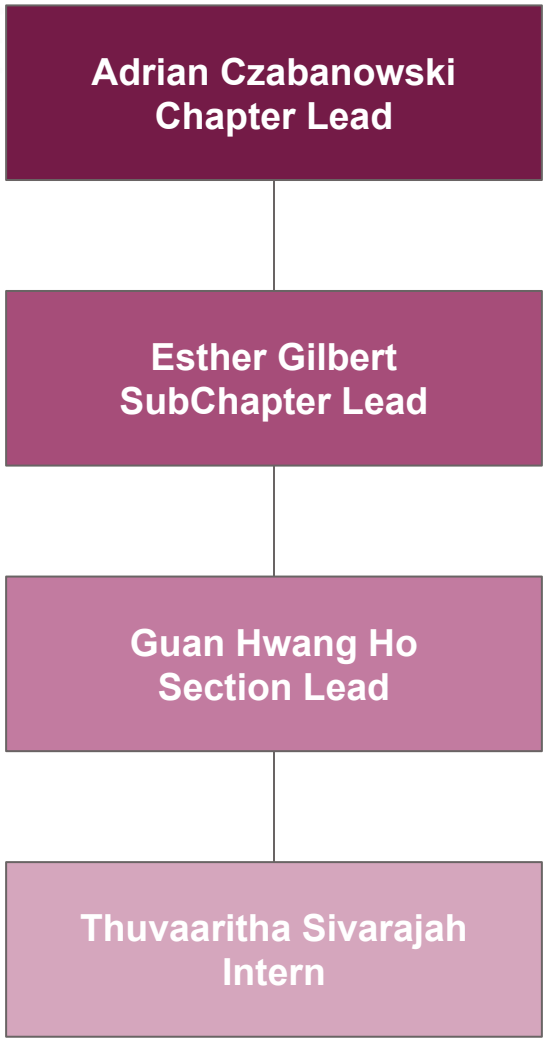
Chapter Organization Chart



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Project I : Capability Framework Automation

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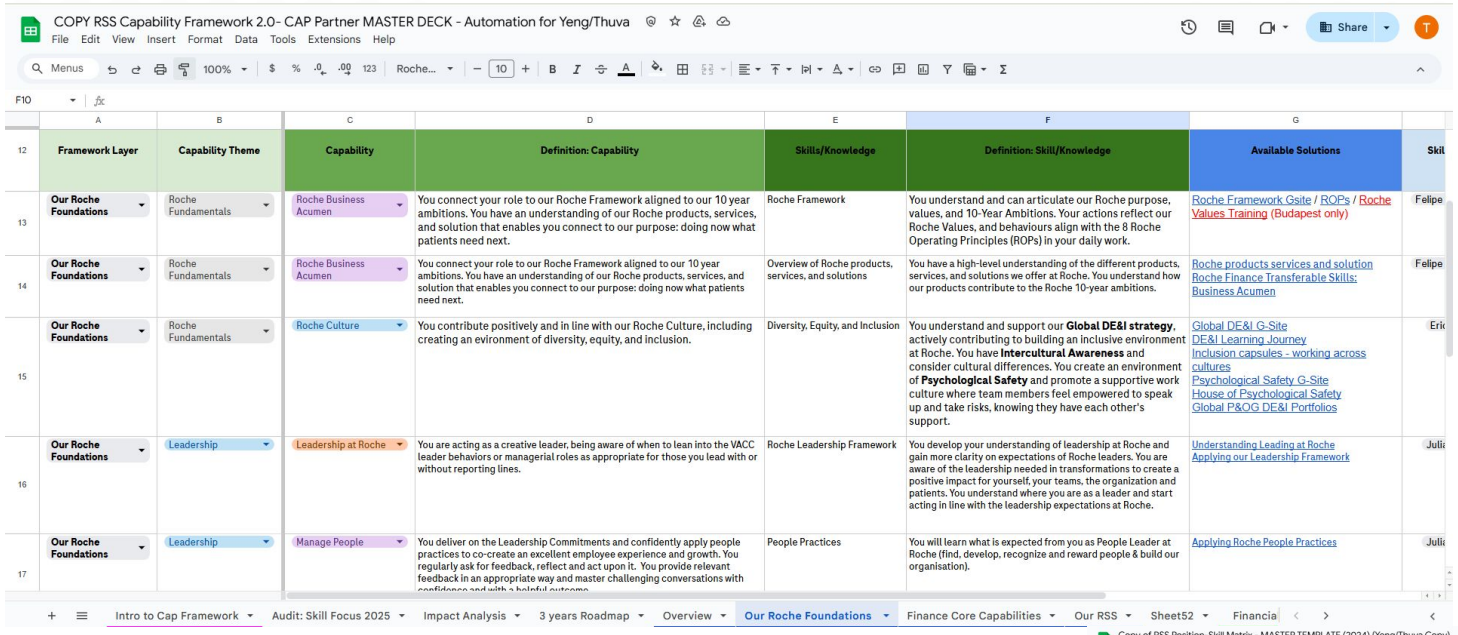
Task Description

- Convert the manual capability framework from a manual google sheet to a user friendly system
- Automated template of Position Skill Matrix using Capability Framework
- Include search functions for users to make it easier for them to obtain information
- Create a dashboard for an overview and overall skill stacking

Capability Framework Automation


COPY RSS Capability Framework 2.0- CAP Partner MASTER DECK - Automation for Yeng/Thuva

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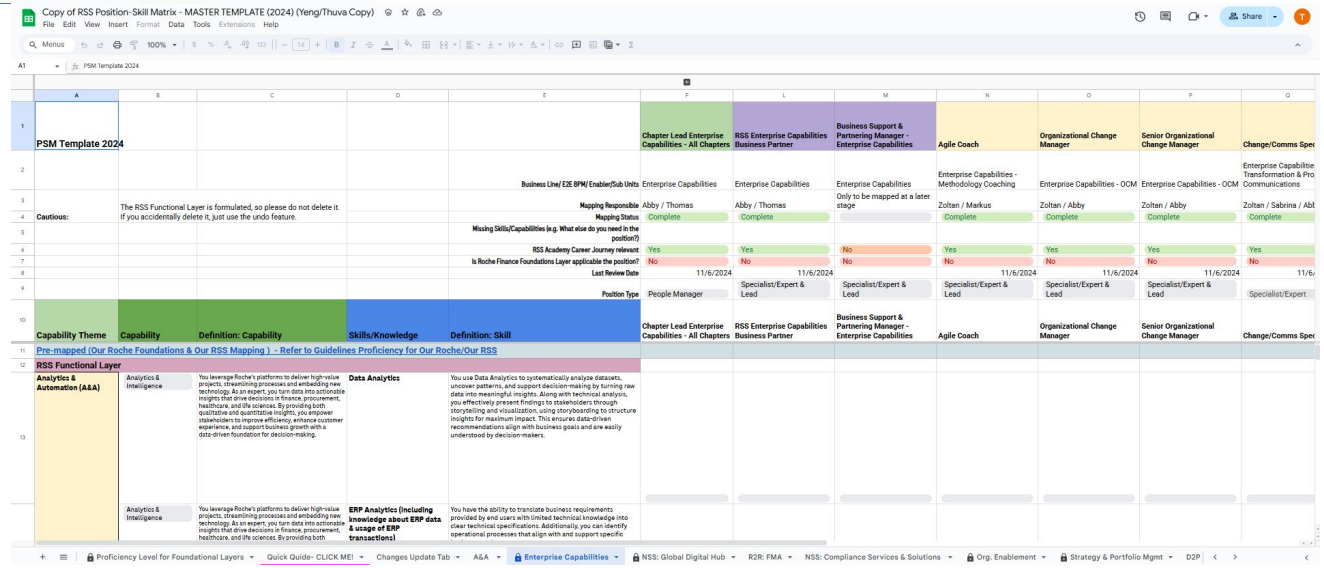
Framework Layer	Capability Theme	Capability	Definition: Capability	Skills/Knowledge	Definition: Skill/Knowledge	Available Solutions	Skil
Our Roche Foundations	Roche Fundamentals	Roche Business Acumen	You connect your role to our Roche Framework aligned to our 10 year ambitions. You have an understanding of our Roche products, services, and solution that enables you connect to our purpose: doing now what patients need next.	Roche Framework	You understand and can articulate our Roche purpose, values, and 10-Year Ambitions. Your actions reflect our Roche Values, and behaviours align with the 8 Roche Operating Principles (ROPs) in your daily work.	Roche Framework Gsite / ROPs / Roche Values Training (Budapest only)	Felipe
Our Roche Foundations	Roche Fundamentals	Roche Business Acumen	You connect your role to our Roche Framework aligned to our 10 year ambitions. You have an understanding of our Roche products, services, and solution that enables you connect to our purpose: doing now what patients need next.	Overview of Roche products, services, and solutions	You have a high-level understanding of the different products, services, and solutions we offer at Roche. You understand how our products contribute to the Roche 10-year ambitions.	Roche products services and solution Roche Finance Transferable Skills: Business Acumen	Felipe
Our Roche Foundations	Roche Fundamentals	Roche Culture	You contribute positively and in line with our Roche Culture, including creating an evironment of diversity, equity, and inclusion.	Diversity, Equity, and Inclusion	You understand and support our **Global DE&I strategy**, actively contributing to building an inclusive environment at Roche. You have **Intercultural Awareness** and consider cultural differences. You create an environment of **Psychological Safety** and promote a supportive work culture where team members feel empowered to speak up and take risks, knowing they have each other's support.	Global DE&I G-Site DE&I Learning Journey Inclusion capsules - working across cultures Psychological Safety G-Site House of Psychological Safety Global P&OG DE&I Portfolios	Eric
Our Roche Foundations	Leadership	Leadership at Roche	You are acting as a creative leader, being aware of when to lean into the VACC leader behaviors or managerial roles as appropriate for those you lead with or without reporting lines.	Roche Leadership Framework	You develop your understanding of leadership at Roche and gain more clarity on expectations of Roche leaders. You are aware of the leadership needed in transformations to create a positive impact for yourself, your teams, the organization and patients. You understand where you are as a leader and start acting in line with the leadership expectations at Roche.	Understanding Leading at Roche Applying our Leadership Framework	Juli
Our Roche Foundations	Leadership	Manage People	You deliver on the Leadership Commitments and confidently apply people practices to co-create an excellent employee experience and growth. You regularly ask for feedback, reflect and act upon it. You provide relevant feedback in an appropriate way and master challenging conversations with confidence and with a helpful outcome.	People Practices	You will learn what is expected from you as People Leader at Roche (find, develop, recognize and reward people & build our organisation).	Applying Roche People Practices	Juli

Intro to Cap Framework | Audit: Skill Focus 2025 | Impact Analysis | 3 years Roadmap | Overview | Our Roche Foundations | Finance Core Capabilities | Our RSS | Sheet52 | Financia


Copy of RSS Position-Skill Matrix - MASTER TEMPLATE (2024) (Yeng/Thuva Copy)

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PSM Template 2024

Capability Theme	Capability	Definition: Capability	Skills/Knowledge	Definition: Skill	Chapter Lead Enterprise Capabilities - All Chapters	RSS Enterprise Capabilities Business Partner	Business Support & Partnering Manager - Enterprise Capabilities	Agile Coach	Organizational Change Manager	Senior Organizational Change Manager	Change/Comms Spec
Business Line/ E2E BPM/ Enabler/Sub Units					Enterprise Capabilities	Enterprise Capabilities	Enterprise Capabilities	Enterprise Capabilities - Methodology Coaching	Enterprise Capabilities - OCM	Enterprise Capabilities - OCM	Enterprise Capabilitie Transformation & Pro Communications
Mapping Responsible		The RSS Functional Layer is formulated, so please do not delete it. If you accidentally delete it, just use the undo feature.			Abby / Thomas	Abby / Thomas	Only to be mapped at a later stage	Zoltan / Markus	Zoltan / Abby	Zoltan / Abby	Zoltan / Sabrina / Abi
Mapping Status	Cautious:				Complete	Complete		Complete	Complete	Complete	Complete
Missing Skills/Capabilities (e.g. What else do you need in the position?)											
RSS Academy Career Journey relevant					Yes	Yes	No	Yes	Yes	Yes	Yes
Is Roche Finance Foundations Layer applicable the position?					No	No	No	No	No	No	No
Last Review Date					11/6/2024	11/6/2024		11/6/2024	11/6/2024	11/6/2024	11/6
Position Type					People Manager	Specialist/Expert & Lead	Specialist/Expert & Lead	Specialist/Expert & Lead	Specialist/Expert & Lead	Specialist/Expert & Lead	Specialist/Expert
Pre-mapped (Our Roche Foundations & Our RSS Mapping) - Refer to Guidelines Proficiency for Our Roche/Our RSS											
RSS Functional Layer											
Analytics & Automation (A&A)	Analytics & Intelligence	You leverage Roche's platforms to deliver high-value projects, streamlining processes and embedding new technology. As an expert, you turn data into actionable insights that drive decisions in finance, procurement, healthcare, and life sciences. By providing both qualitative and quantitative insights, you empower stakeholders to improve efficiency, enhance customer experience, and support business growth with a data-driven foundation for decision-making.	Data Analytics	You use Data Analytics to systematically analyze datasets, uncover patterns, and support decision-making by turning raw data into meaningful insights. Along with technical analysis, you effectively present findings to stakeholders through storytelling and visualization, using storyboarding to structure insights for maximum impact. This ensures data-driven recommendations align with business goals and are easily understood by decision-makers.							
	Analytics & Intelligence	You leverage Roche's platforms to deliver high-value projects, streamlining processes and embedding new technology. As an expert, you turn data into actionable insights that drive decisions in finance, procurement, healthcare, and life sciences. By providing both	ERP Analytics (including knowledge about ERP data & usage of ERP transactions)	You have the ability to translate business requirements provided by end users with limited technical knowledge into clear technical specifications. Additionally, you can identify operational processes that align with and support specific							

Proficiency Level for Foundational Layers | Quick Guide- CLICK ME! | Changes Update Tab | A&A | Enterprise Capabilities | NSS: Global Digital Hub | R2R: FMA | NSS: Compliance Services & Solutions | Org. Enablement | Strategy & Portfolio Mgmt | D2P

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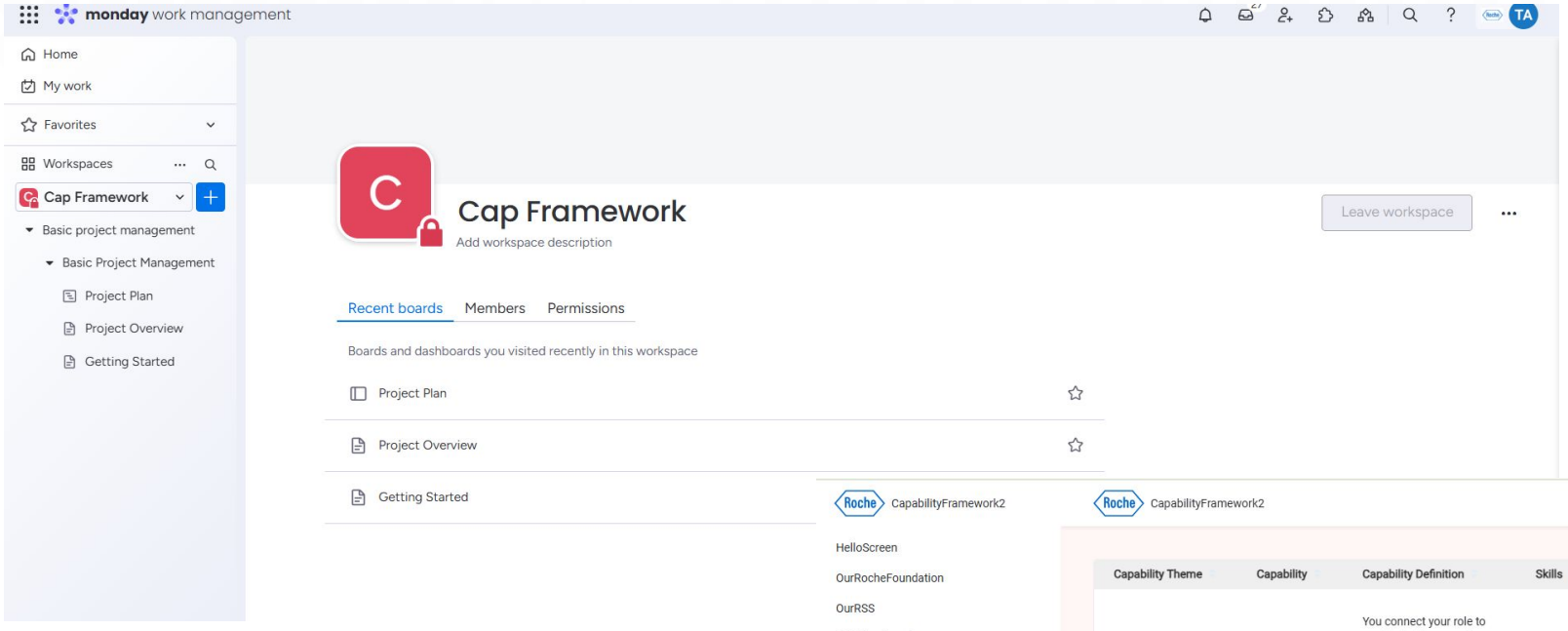
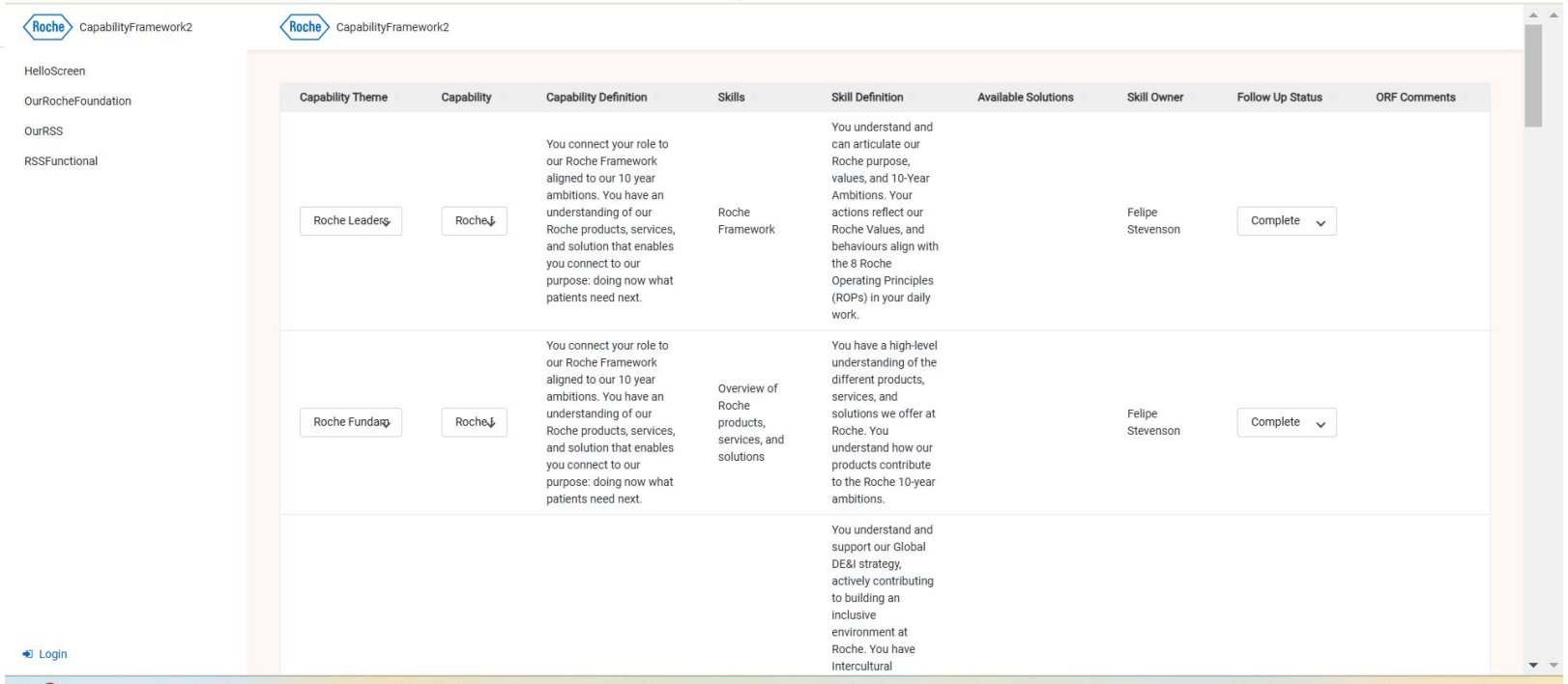
Capability Framework Automation





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What Have I Learned?

- System Design and User Experience

  - Ensure user interface is intuitive and accessible to users

- Automation and Efficiency

  - Learned how to reduce manual effort through automation

- Problem Solving and Adaptability

  - Identified inefficiencies in the existing manual system and addressing them through creative solutions

  - Adhere to product owner's requests and make the necessary changes within the given time frame

- How to Use A Low-Code Platform to Develop An Application

  - Outsystems training

  - Using the Outsystems platform as the main tool to develop this system

Challenges I Have Faced

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- Using Outsystems to develop the application
- Time constraint
- Adhering to the requirements
- Integrating a search function
- Figuring out how to combine the capability framework and position skill matrix into one page

Project II : Innovista

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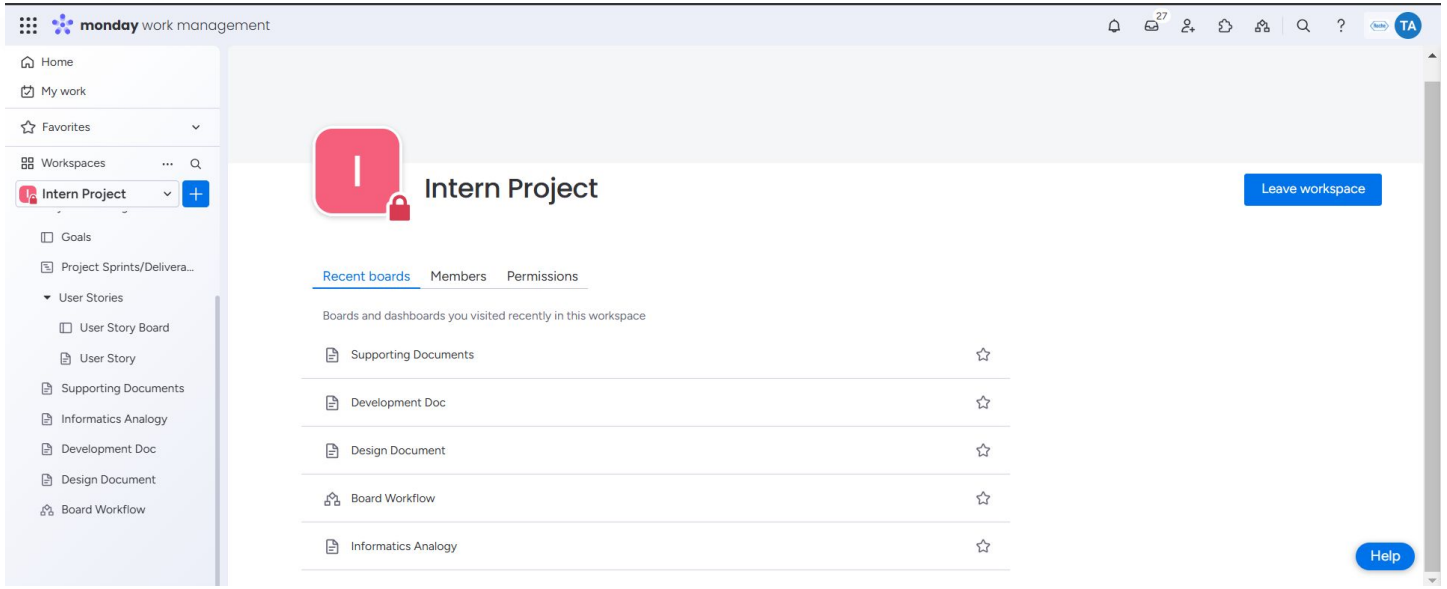
Task Description

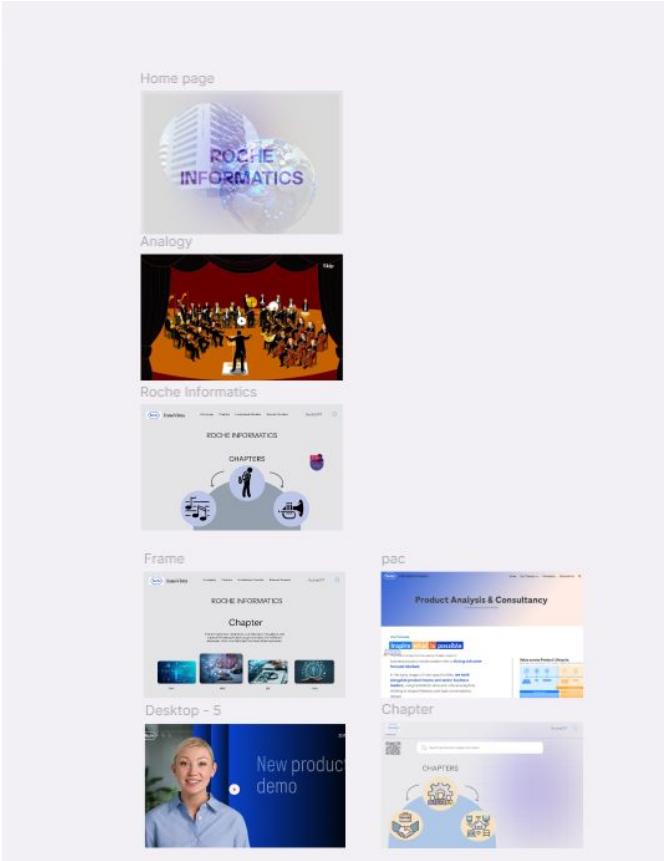
UI/UX Designer: Craft an intuitive and visually appealing design mockup for the entire website using Figma, ensuring that the layout is user-centric and aligns with modern design principles

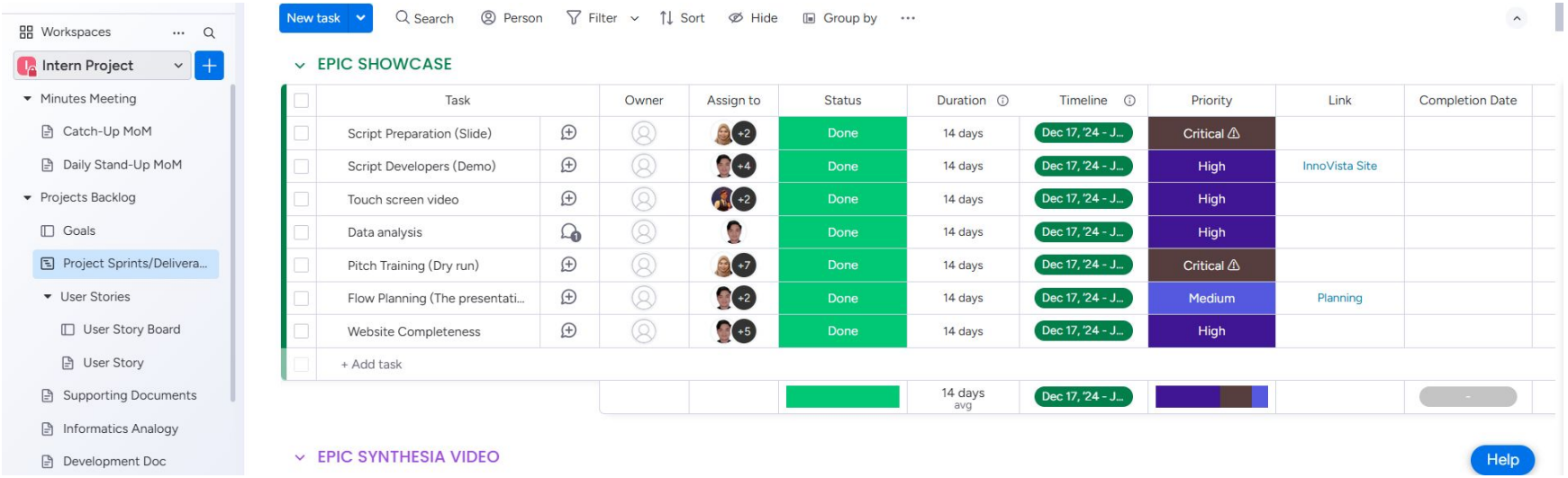
Front-end Developer: Build and refine the web homepage to make it engaging, interactive, and easy to navigate

Content Creator: Leverage SYNTHESIA to produce high-quality videos that effectively communicate the intended message, ensuring the content is engaging, professional, and tailored to resonate with the employees and visitors.

Innovista







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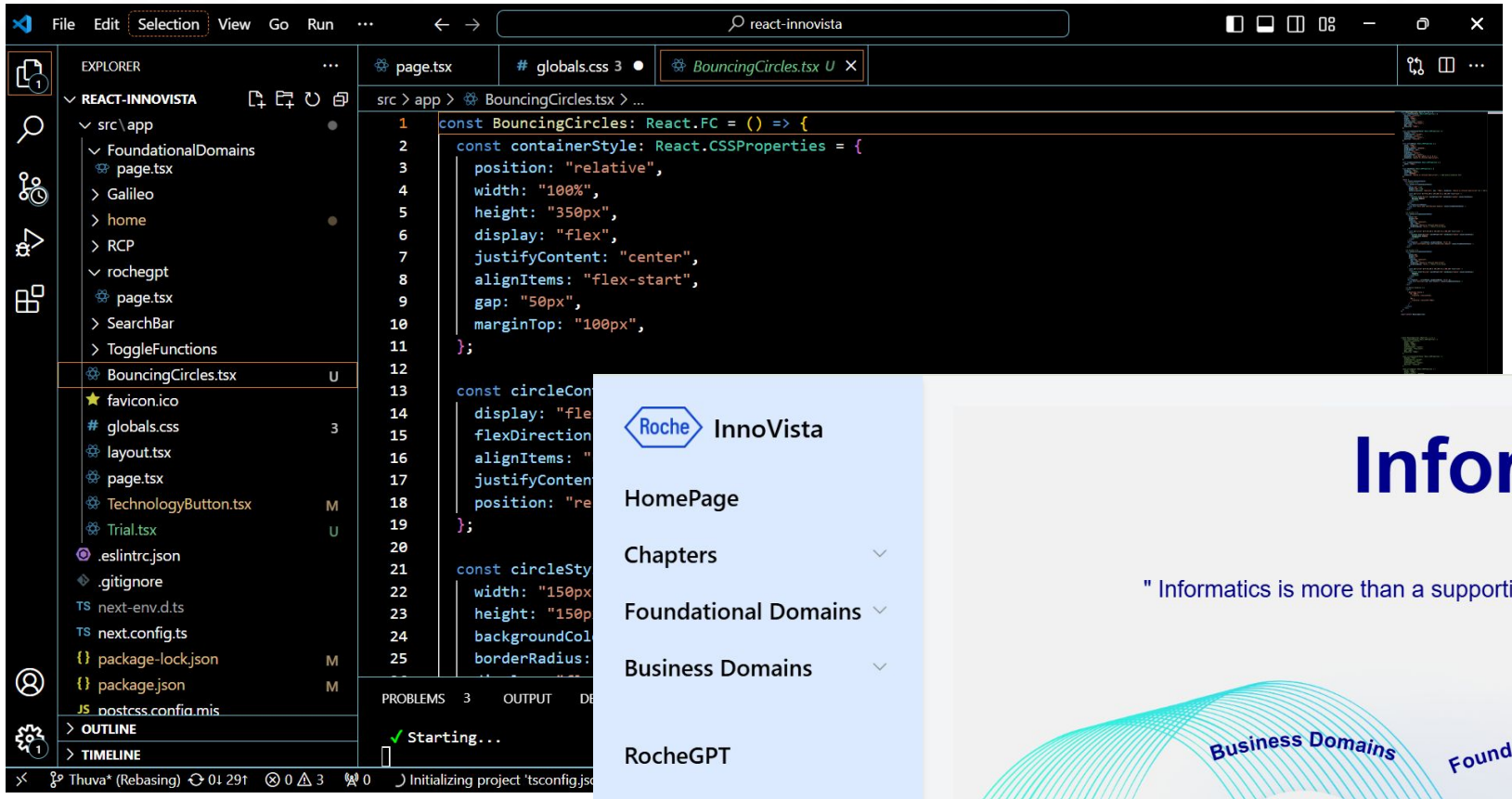
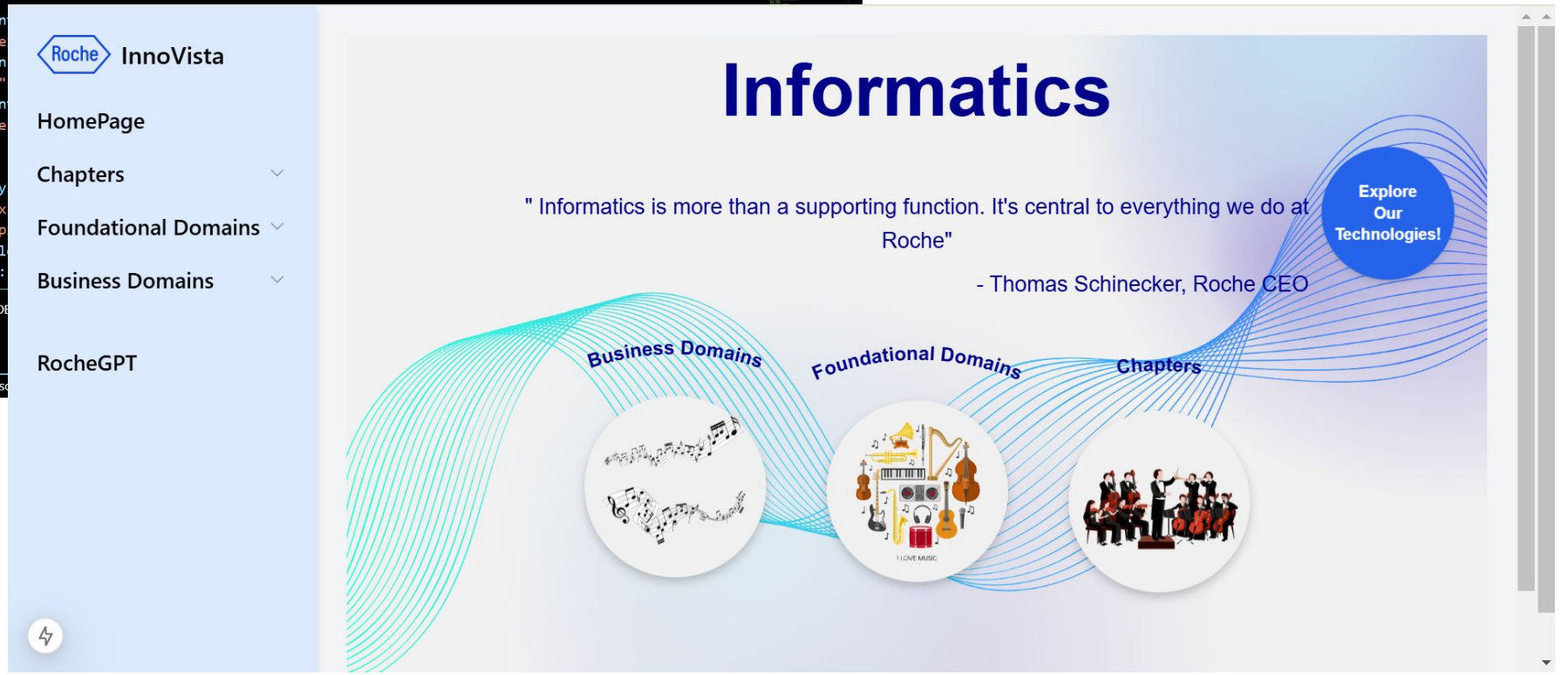
Innovista





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What Have I Learned?

- Agile Methodology Practice
  - Used Monday.com as our project management tool and practiced some sprint planning, daily stand-ups and retrospectives at the end of every deliverable
- ReactJS for front-end development
  - Used ReactJS to develop the Innovista homepage
- Utilized GitLab to store all our codes and for merging purposes
  - no prior experience with Gitlab, learned how push and pull codes as well as code in my branch before pushing to main
- Content Creation for the website
  - Used SYNTHESIA to develop AI-generated videos for specific domains and technologie here in Roche to make understanding them easier for employees and visitors

Challenges I Have Faced

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- Understanding ReactJS and how to code interactive designs
- Pushing my code to the main branch
-
- Figuring out how to use Synthesia in the beginning
- Ensuring everyone was on the same page and ideas were aligned
- Integration of RocheChat into our website
- Embedding the Informatics web pages into our website

Technical Skills & Soft Skills

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Technical Skills

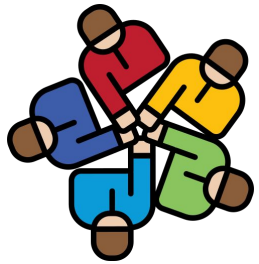
monday.com

React JS

GitLab

outsystems

Soft Skills



Teamwork

Adaptability

Confidence

Networking

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Events Participated

Events Participated

Let’s Connect Q3/2024

Ctrl + Alt + Fun Day

Cultural Day

RSS APAC Innovation Day

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Events Participated

Lego For Scrum Workshop

Data GOVember

Internship Project Showcase

Year End Xmas Party

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THANK YOU

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