



## **TREBAS INSTITUTE**

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**Program:** Analytics, Big Data and Business Intelligence

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**TI Number:** TI1007120

**Internship Position:** Data Analyst

**Dates:** July 4<sup>th</sup>, 2023, to August 30<sup>th</sup>, 2023

**Company name:** Ecole Efficace

**Address:** 324 Rue Robitaille, Laval, QC, Canada, Quebec

**Supervisor:** Iyad Koteich, Founder & CEO



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## **Thank you.**

**Dear husband,**

Thank you so much for being by my side in this new stage that we have decided to embark on together. Thank you for all your support and words of encouragement during the difficult moments, for being patient with me, and for all your help in making this dream come true.

**Dear Leo and Sara,**

I want to express my gratitude for your patience and support when Mom had to be away, and for all the moments when you had to be quiet because Mom had classes. But above all, I want to thank you for your love. You are the strength that propels me to strive to be better every day and to set a good example for you.

**Dear supervisor Iyad Kiotech,**

I'd like to express my gratitude for your supervision and guidance during my internship. My experience was very valuable, and I've gained so much insight into Ecole Efficace. I enjoyed working and collaborating with you, and I was delighted to be part of this project.

Working on different type of projects allowed me to reinforce the knowledge I acquire and gain experience in the field of data analysis. Your advice, experience and leadership have been truly invaluable throughout all this time we have worked together.

## Introduction

As a student of analytics, big data, and business intelligence, the internship at Ecole Efficace offers a perfect opportunity to apply and further develop the knowledge and skills acquired during my academic program. Analyzing real-world data in the context of the real estate market of Quebec will be a valuable practical experience.

The internship at Ecole Efficace allows me to work in the Head of Career Development & Industry Integration department, which aligns with my career aspirations. I am passionate about bridging the gap between education and industry, and this position will enable me to contribute to the success of students in their career paths.

The project to identify trends and opportunities in the real estate market of Quebec is appealing as it provides an opportunity to work with large datasets and gain insights into a dynamic and vital industry. This experience will deepen my understanding of data analysis within a specific sector and its practical implications.

Joining Ecole Efficace for this internship means working in an environment where data-driven decisions can make a significant impact on the careers of students. My work in the data analyst role can directly influence the strategies for career development and industry integration programs, contributing to the success of aspiring professionals.

From my research on Ecole Efficace, I have observed that it fosters an innovative and supportive learning environment. This aligns with my desire to work in a dynamic and forward-thinking company that encourages creativity and continuous improvement.

The internship at Ecole Efficace offers a chance for personal growth and professional development. Working in a data analyst role in a real-world context will enhance my problem-solving, communication, and collaboration skills, preparing me for a successful career in data analytics.

Overall, the combination of aligning my academic interests, the industry integration focus of the company, and the opportunity to analyze real estate market data makes the internship at Ecole Efficace an ideal choice for my career development in the field of data analytics and business intelligence.

## General presentation of the company

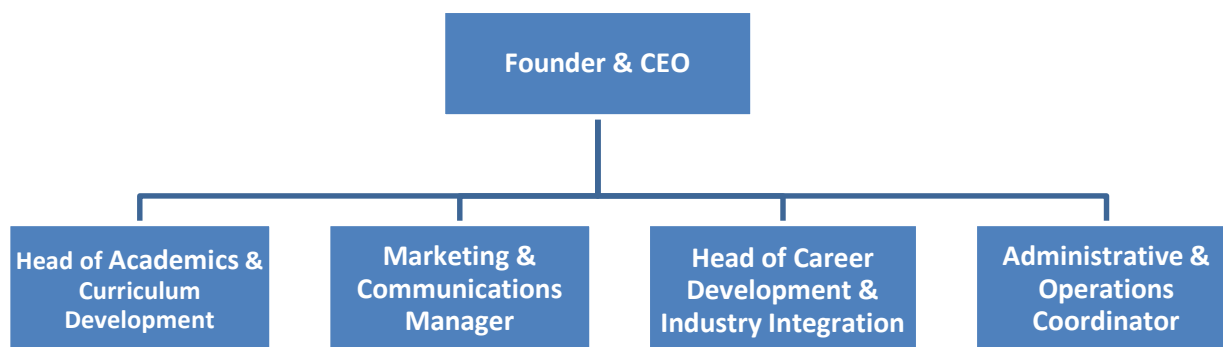
Ecole Efficace is a startup whose objective is to be a bridge the gap between education and employment by providing students with a holistic and future-oriented learning experience. They aim to cultivate a culture of innovation, creativity, and critical thinking, while also fostering strong interpersonal skills and a global mindset. Through strategic partnerships with industry leaders, internships, mentorship programs, and tailored career support, they strive to enhance their students' employability, enabling them to embark on successful professional journeys.

Ecole Efficace is located in 324 Rue Robitaille, Laval, QC, Canada, Quebec

### Logo:



### Structure:



## Mission:

At Ecole Efficace, our mission is to empower students through comprehensive education and personalized career development, enabling them to seamlessly integrate into the ever-evolving job markets. We are committed to equipping our students with the skills, knowledge, and practical experiences necessary to thrive in their chosen professions and make meaningful contributions to society.

## Vision:

Our vision is to be a leading and innovative educational institution that pioneers a new era of student-centered learning, career guidance, and industry integration. We envision a future where every student, regardless of their background, has access to high-quality education and is well-prepared to succeed in the dynamic and competitive job markets of the 21st century.

## Values:

- **Excellence:** We strive for excellence in education, setting high standards and delivering exceptional programs.
- **Empowerment:** We empower students to take charge of their learning and career paths.
- **Innovation:** We embrace innovation, fostering creativity and adapting to the evolving needs of job markets.
- **Collaboration:** We value collaboration, creating a supportive community that fosters teamwork and collective success.
- **Integrity:** We uphold integrity, ethics, and professionalism in all interactions, promoting honesty and respect.
- **Social Responsibility:** We prioritize making a positive impact on society and the environment, instilling a sense of responsibility in our students.
- **Lifelong Learning:** We promote a culture of continuous learning, encouraging curiosity and growth beyond the classroom.

## Company's Strengths:

- **Experienced and Passionate Educators:** Ecole Efficace may have a team of experienced and passionate educators who are dedicated to providing high-quality education and mentorship to students.

- **Innovative Teaching Methods:** The company could adopt innovative and effective teaching methods, leveraging technology and experiential learning to enhance the educational experience.
- **Strong Industry Partnerships:** Ecole Efficace may have established strong partnerships with leading companies and industry professionals, providing students with valuable networking opportunities and access to real-world experiences.
- **Personalized Career Support:** The company might offer personalized career development services, including mentorship programs, resume building, and interview preparation, to enhance students' employability.

### Company's Weaknesses:

- **Limited Recognition:** As an emerging startup, Ecole Efficace might face challenges in gaining recognition and building a reputation in the education sector.
- **Financial Constraints:** The company could face financial constraints, limiting its ability to invest in resources, infrastructure, and marketing efforts.
- **Limited Network:** Ecole Efficace may have a relatively small network compared to more established institutions, which could impact its ability to attract students and industry partners.
- **Competition:** The education industry is competitive, and Ecole Efficace might face competition from other established institutions offering similar programs and services.
- **Scalability:** Scaling up operations and maintaining quality as the company grows could be a potential challenge for Ecole Efficace

### Market:

As an emerging startup working with students to integrate into job markets, Ecole Efficace is active in the education and career development markets. These markets are dynamic and ever-evolving due to changes in technology, job market demands, and educational trends.

Here's a breakdown of the characteristics of these markets:

- **Stability:** The education and career development markets can be considered stable in the sense that there will always be a demand for quality education and professional guidance. However, specific trends and approaches in these markets can change rapidly, requiring adaptability from Ecole Efficace.

- **Maturity:** The education market is generally considered mature, as there are well-established institutions and educational providers. However, the specific niche of career-focused education and personalized career development may still be emerging.
- **Saturation:** The education market can be considered saturated in some areas, particularly in traditional academic institutions. However, the market for career-focused education and innovative learning approaches might have more room for growth.
- **Dynamics:** Both the education and career development markets are dynamic, with constant changes in technology, industry demands, and educational approaches. Ecole Efficace should stay agile and responsive to these dynamics.
- **Competition:** The competition in the education and career development markets can be strong, especially in areas where there are well-established institutions. However, Ecole Efficace's unique approach and focus on industry integration might differentiate it from traditional competitors.

## Main Competitors:

The main competitors for Ecole Efficace would include:

- **Traditional Educational Institutions:** Established universities and colleges offering various educational programs and career services.
- **Specialized Career Development Centers:** Institutes or organizations that focus on providing career development and job placement services.
- **Online Learning Platforms:** E-learning platforms that offer online courses and programs, including those related to career development.
- **Other Emerging Startups:** Similar emerging startups that aim to bridge the gap between education and industry integration.

To succeed in a competitive landscape, Ecole Efficace should emphasize its unique value proposition, strong industry partnerships, innovative teaching methods, and personalized career support to attract and retain students and stand out among its competitors.



**The political environment:** Can influence the education sector through government policies, funding, and regulations. Changes in education policies, funding allocations, or political stability in the regions where Ecole Efficace operates could have implications for its operations and growth prospects.

**Economic Environment:** The economic climate can affect the demand for educational services and the ability of students to afford them. Economic downturns may lead to reduced enrollment or financial challenges for students, while economic growth can potentially create opportunities for expansion.

**Social Environment:** Social attitudes towards education and career development can impact the success of Ecole Efficace. Increased awareness of the importance of skills training and career-oriented learning may create a favorable environment for the company. Similarly, social movements focused on diversity, inclusion, and social responsibility could shape the company's approach and reputation.

**Technological Advancements:** Rapid technological advancements can present both opportunities and challenges for Ecole Efficace. Embracing innovative teaching methods and leveraging technology in education could enhance the company's competitiveness. However, keeping up with the latest technological trends may require investments and adaptability.

**Environmental Factors:** Growing concerns about environmental sustainability may influence educational practices and student preferences. Ecole Efficace's commitment to eco-friendly initiatives and social responsibility can align with changing societal expectations.

**Public Health:** The ongoing global pandemic and its potential aftermath could continue to impact educational institutions, including Ecole Efficace. Remote learning, health protocols, and student well-being will remain significant considerations.

**Globalization and Competition:** Globalization enables access to a broader student base but also increases competition. Ecole Efficace may face competition not only from local educational providers but also from international platforms and institutions offering similar programs.

It's essential for Ecole Efficace to stay attuned to the evolving global environment and be responsive to its impact on the education sector. Continuously monitoring political, economic, social, technological, environmental, and health-related developments can inform strategic decision-making and ensure the company's relevance and success.

## Description of the Internship department

**Title:** Head of Career Development & Industry Integration

The Head of Career Development & Industry Integration department at Ecole Efficace plays a pivotal role in empowering students to seamlessly transition into the job market by providing comprehensive career development support and fostering strong industry partnerships. The primary objective is to equip students with the skills, knowledge, and networks necessary for successful career outcomes.

**Number of employees:** 1

**Management and Operation:** The department is managed by experienced professional who oversee career development programs, industry partnerships, and student counseling services. The Head of Career Development & Industry Integration leads the team, collaborating with other departments to ensure the integration of career-oriented initiatives across the organization.

**Role in the Company:** The department's primary role is to support students in their career journeys by offering personalized career counseling, organizing networking opportunities, and facilitating industry engagement. It works closely with academic departments to align the curriculum with industry demands and ensure students acquire relevant skills and knowledge for their chosen professions.

**General Mission:** The general mission of the Head of Career Development & Industry Integration department is to bridge the gap between education and employment, equipping students with the necessary tools to thrive in the job market. Through data-driven strategies, the department aims to identify trends and opportunities in various industries, providing students with valuable insights into emerging career pathways.

**Links with Other Services:** The department collaborates extensively with several other services within Ecole Efficace:

- **Academic Departments:** Close collaboration with academic departments ensures that the curriculum remains relevant and industry-focused. Data analysis helps identify areas where educational offerings can be enhanced to align with market demands.

- **Marketing & Communications:** The department works with the marketing team to promote student success stories and industry partnerships, showcasing the value of Ecole Efficace's career development services to prospective students and employers.
- **Alumni Relations:** Building strong ties with alumni facilitates mentorship opportunities and alumni engagement in career development activities, strengthening the network of support for current students.
- **Data Analytics & Research:** The department collaborates with data analytics and research teams to access relevant datasets and analyze labor market trends. This partnership facilitates evidence-based decision-making and the development of data-driven strategies.

**Functions and Responsibilities:**

- Develop and execute a strategic plan for career development programs and initiatives.
- Identify key areas of focus to enhance students' employability and career readiness.
- Implement best practices in career counseling, job placement, and professional skill-building.
- Establish and maintain strong partnerships with local and national industry stakeholders.
- Collaborate with industry professionals to align curriculum and learning outcomes with industry demands.
- Facilitate networking opportunities, internships, and industry projects for students.
- Provide individualized career counseling and guidance to students based on their interests and goals.
- Assist students in resume building, interview preparation, and developing a professional online presence.

The Head of Career Development & Industry Integration plays a critical role in supporting students' personal and professional growth, connecting them with real-world opportunities, and aligning educational offerings with industry demands. By fostering meaningful industry partnerships and providing top-tier career support, the department facilitates a successful transition for Ecole Efficace students into the job market.

## Description of the objectives of the internship

**Data Analysis:** The primary objective of the internship is to conduct comprehensive data analysis of the real estate market of Quebec. This includes gathering relevant datasets, cleaning and preprocessing the data, and employing various analytical techniques to identify trends and opportunities.

**Insights Generation:** The internship aims to generate actionable insights and recommendations based on data analysis. These insights will aid the Head of Career Development & Industry Integration department in designing effective strategies for student career development and industry integration in the real estate sector.

**Visual Representation:** Another objective is to present the findings in a visually compelling manner using data visualization tools. This will facilitate better understanding and communication of the trends and opportunities to key stakeholders within Ecole Efficace.

**Collaboration and Integration:** Throughout the internship, close collaboration with the department head and other team members will be encouraged to ensure that data insights are integrated into the overall career development programs and industry partnerships.

**Impact Assessment:** The internship will involve evaluating the impact of data-driven decisions on students' career outcomes and industry engagement. This will help measure the effectiveness of strategies and identify areas for improvement.

Overall, the internship's objectives aim to harness data analysis to support the Head of Career Development & Industry Integration department's efforts in creating meaningful opportunities for Ecole Efficace students in the real estate market of Quebec. Through evidence-based insights and recommendations, the internship seeks to enhance the department's success in fostering successful career paths and industry connections for aspiring professionals.

## Description and analysis of the project and the tasks carried out during the internship.

As a data analyst intern in the project to identify trends and opportunities in the real estate market of Quebec at Ecole Efficace, my mission was to support the Head of Career Development & Industry Integration department by conducting data analysis and providing valuable insights for strategic decision-making. Throughout the internship, I had the following responsibilities:

### Mission and Responsibilities:

Analyzing real estate market data to identify trends, patterns, and potential opportunities for students' career paths.

Collaborating with the department head and other team members to understand project objectives and align data analysis with the department's goals.

Presenting data-driven insights and recommendations in a clear and concise manner to support the development of effective career development strategies.

### Tasks Performed:

Collecting real estate market datasets from various sources, including government agencies, industry reports, and online platforms.

Cleaning and preprocessing data to ensure accuracy and consistency for analysis.

Utilizing statistical techniques and data visualization tools to analyze and interpret the data effectively.

### Files Entrusted:

I had access to datasets related to the real estate market of Quebec, which included information on property prices, market trends, housing demand, and economic indicators relevant to the industry.

### Specific Objectives:

The main objective of the project was to identify key trends and opportunities in the real estate market that could inform career development strategies for students interested in pursuing careers in this sector. This involved examining factors such as the most in-demand roles, emerging job opportunities, and geographic areas with significant real estate market growth potential.

#### Equipment Used:

Personal computer and laptop with sufficient processing power and storage capacity for data analysis tasks.

Internet access to collect data from various online sources and access relevant research materials.

#### Software and Tools Used:

Microsoft Excel and Google Sheets for data cleaning and basic analysis.

Python programming language with libraries such as Pandas, NumPy, and Matplotlib for advanced data analysis and visualization.

Power BI for visualization.

PDF and Microsoft Word for reports.

#### Tools and Development Method for the Project:

The project was mainly conducted using Python programming for extract and forecast data and Power BI for visualizations. I followed an iterative and exploratory data analysis approach, allowing flexibility in data exploration and hypothesis testing. By using Python's powerful libraries, I could efficiently process large datasets and create meaningful visualizations to identify trends and patterns in the real estate market.

#### Time Management and Work Organization:

Throughout the internship, time management was crucial to balance data analysis tasks, meeting project deadlines, and collaborating with the team. I utilized task management tools and weekly progress meetings with the department head to ensure a well-organized and efficient workflow. Regular communication with team members helped in coordinating efforts and staying aligned with the project's objectives.

In conclusion, my internship at Ecole Efficace as a data analyst in the real estate market project provided valuable hands-on experience in data analysis, enabling me to contribute meaningful insights to support the Head of Career Development & Industry Integration department's strategic decision-making process. The opportunity to work with real-world datasets and collaborate with a dynamic team further enhanced my skills in data analytics and reinforced my passion for leveraging data to drive informed business decisions.

## Presentation and analysis of the results obtained.

During my internship at Ecole Efficace as a data analyst in the project to identify trends and opportunities in the real estate market of Quebec, I successfully conducted data analysis, produced valuable insights, and contributed to the department's decision-making process.

### Concrete Results:

**Data Analysis:** I collected, cleaned, and analyzed datasets related to the real estate market, focusing on property prices, market trends, and economic indicators. Using Python programming and data visualization libraries, I generated visual representations of key trends and patterns.

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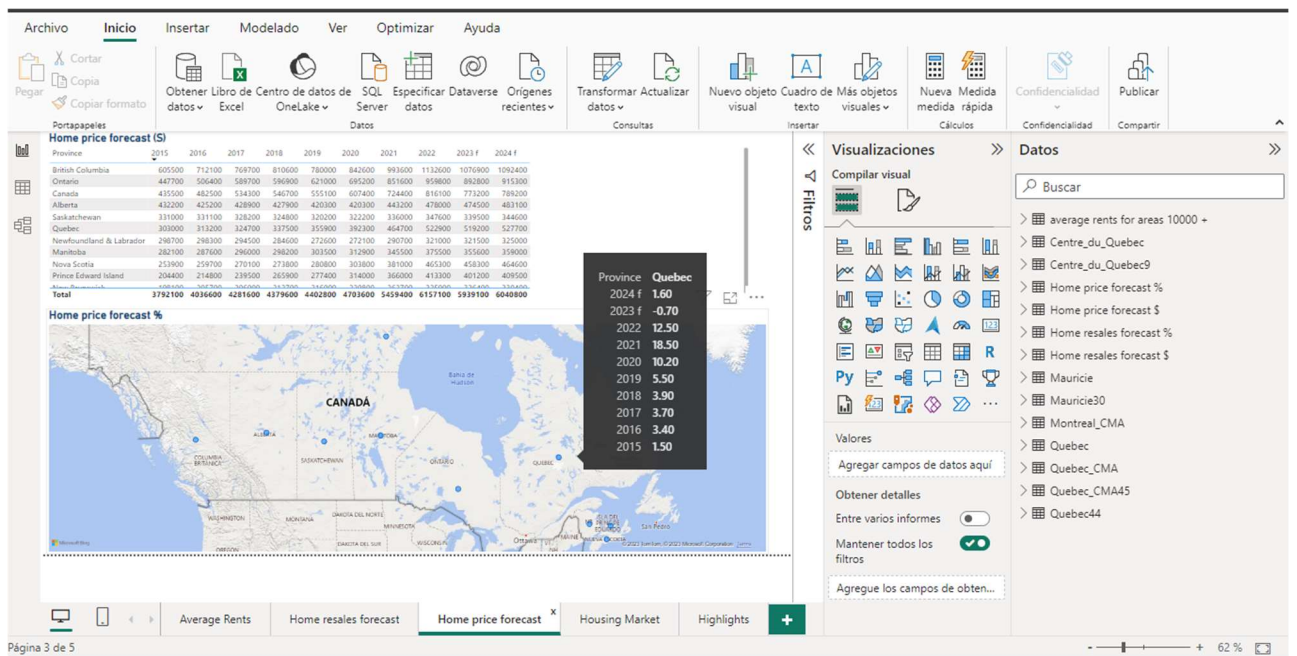
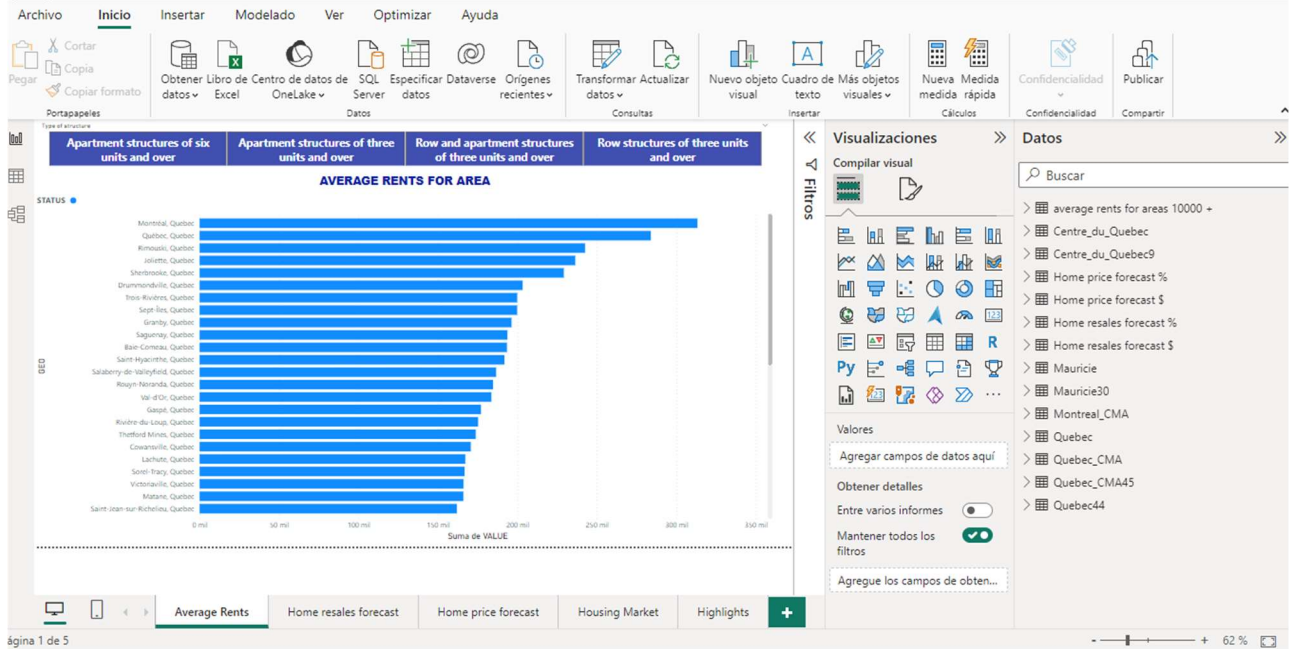
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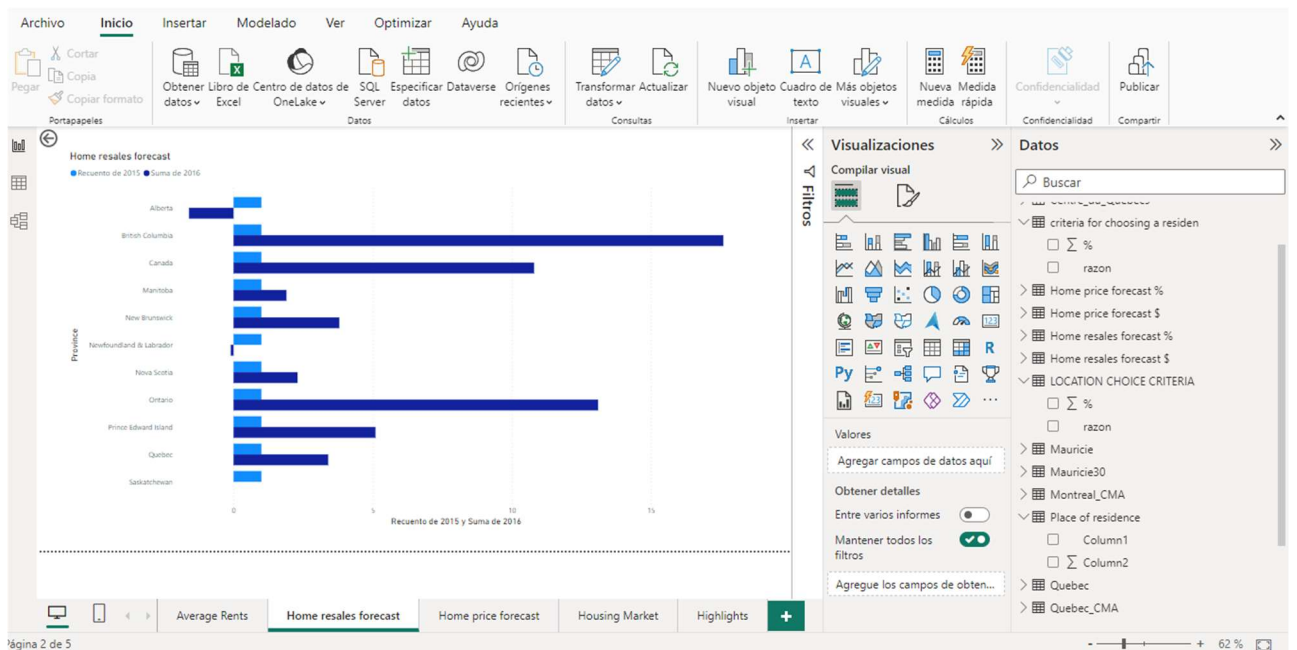
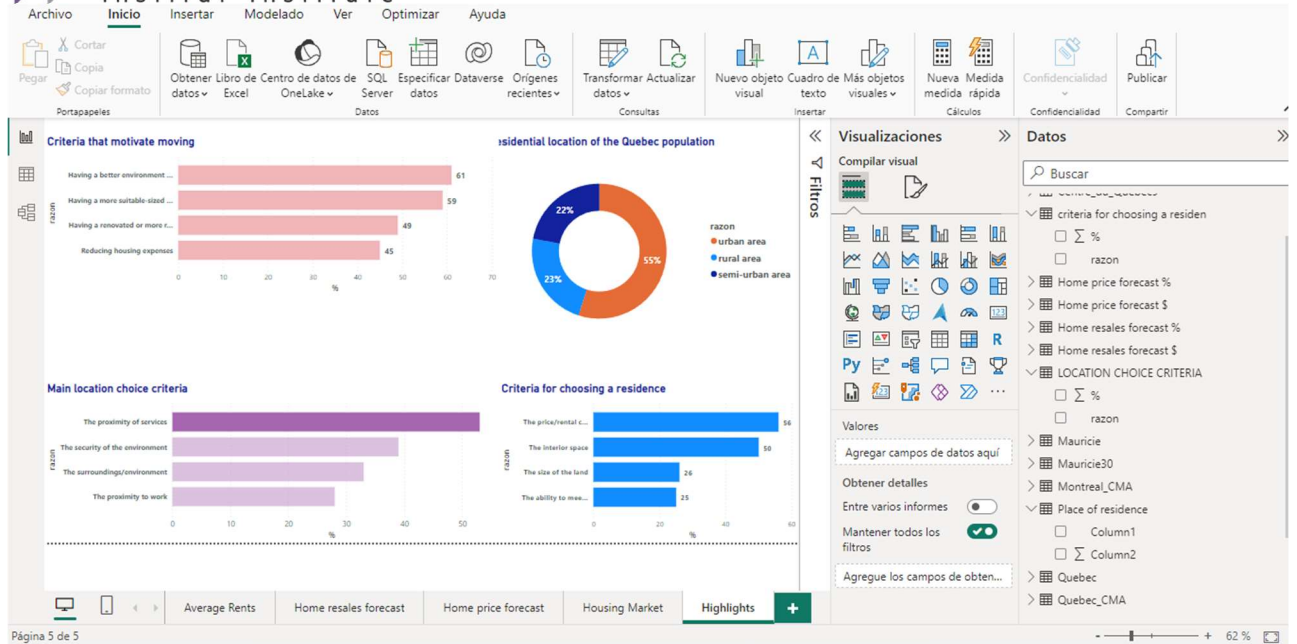
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1 Home Price Index (HPI) Not Seasonally Adjusted.xlsx	✓	26/08/2023 08:09 a. m.	Hoja de cálculo d...	1,178 KB
1 Home Price Index (HPI) Seasonally Adjusted.xlsx	✓	26/08/2023 08:13 a. m.	Hoja de cálculo d...	1,172 KB
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**Insights Presentation:** I created comprehensive visual presentations that highlighted significant trends in the real estate market. These insights were showcased through graphs, charts, and explanatory notes, making complex data easily understandable for non-technical stakeholders.







Despite a still weak real estate market, real estate activity intensified in July, marking the strongest performance since the beginning of the year. Compared to June, the data shows a 13.2 percentage point increase in sales and nearly a 15-percentage point increase in mortgages.

Year-to-date from January, property sales have dropped by 30.7%, and mortgages by 30.9%.

For the entire Quebec region:

The number of registered sales in July 2023 decreased by 15.8% compared to July 2022.

Property transfers totaled 21,124, reflecting an 11.7% decrease.

The number of mortgages also declined by 12.7%.

The financial difficulties index increased by 46.1%, primarily due to a 63.2% rise in exercise notices, totaling 434 notices registered in July, and an 85.7% increase in bankruptcies, totaling 13 registered bankruptcies.

Compared to July 2019, the pre-pandemic baseline year, sales have decreased by 15.6%, and mortgages have decreased by 8.8%.

At the regional level:

A decrease in the number of sales was observed in all regions except for the North Coast region, which experienced a 1.1% increase.

#### Summary of the Quebec Market

The benchmark price for single-family homes in Quebec decreased by 0.1% over the year to reach \$529,100 in July 2023.

The benchmark price for row houses/multiplexes in Quebec decreased by 0.8% over the year to reach \$534,000 in July 2023.

The benchmark price for condominiums in Quebec decreased by 2.4% over the year to reach \$367,400 in May 2023.

The composite benchmark price for properties in Quebec decreased by 1.0% over the year to reach \$469,900 in July 2023.

The average rent for a one-bedroom apartment in Quebec increased by 13% over the year to reach \$1,687 in July 2023.

Data from the Professional Association of Real Estate Brokers of Quebec (APCIQ) indicates that the average price of resale residential properties sold in Quebec in July 2023 was \$469,900, representing a slight decrease of 1.0% compared to the previous year.

With a sales-to-new-listings ratio of 71% due to low inventory, the real estate market in Quebec has become a seller's market since the beginning of the year.

**Diverse Growth in the Housing Market:** Certain areas face higher exposure due to rising interest rates and record-high prices, particularly in Montreal. Some regions, like eastern Quebec, are also seeing this trend but are more resilient against significant price hikes.

**Supply and Demand Dynamics:** The housing shortage caused by construction delays has led to reduced sales. This slowdown in sales during the last quarter of 2022 is expected to influence average property prices in 2023. However, the anticipation of increased supply and stabilized demand should lead to price adjustments.

**Stabilizing Home Prices:** Despite the year's economic situation, the APCIQ does not predict a cycle of property price hikes in Quebec's market. This keeps the mortgage market stable and prevents it from tilting in favor of potential buyers. The real estate market in Quebec is projected to decelerate in 2023, resulting in a 9% sales decline.

**Median Price Trends:** The median price of a single-family home in Quebec is forecasted to decrease by 5% compared to 2022. Montreal's housing market is expected to witness a 12% price drop for single-family homes and a 5% reduction for condominiums, which had experienced a 9% cost increase in 2022.

**Impacts on Buyers and Sellers:** The recent confirmation by the central bank not to raise benchmark interest rates in January is positive for buyers. This should keep interest rates favorable for borrowers. While intentions for home purchases slightly dipped for the upcoming years, they remain steady in the medium term. This news also favors sellers, as prices are gradually correcting after pandemic-induced overvaluation due to rate reductions.

**Achievement of Objectives:** I am pleased to report that the objectives of my mission were successfully achieved:

- I collected and analyzed relevant data to identify trends and opportunities in the real estate market.
- I produced insightful visual presentations that effectively communicated complex

- The insights I provided aligned with the department's goals of enhancing career development programs and industry integration strategies.

## Description and analysis of teamwork and interpersonal relationships.

During my internship at Ecole Efficace as a data analyst, I had the opportunity to work within a collaborative team in the Head of Career Development & Industry Integration department. The dynamics of teamwork and interpersonal relationships played a crucial role in the successful execution of the project.

### Line-Up:

The team consisted of individuals from diverse backgrounds, each bringing unique perspectives and skills to the table. It included the department head, and myself. While the department head provided guidance and leadership, team members contributed their expertise in career development, industry integration, and data analysis.

### Role in the Team:

In my role as a data analyst, my responsibilities centered around collecting, analyzing, and presenting data-driven insights. I collaborated closely with the department head and other team members to ensure that my analyses aligned with the department's objectives. My role involved providing actionable insights to support informed decision-making related to career development strategies.

### Quality of Working Relationships:

The working relationships within the team were characterized by mutual respect, open communication, and a shared commitment to the project's success. The department head fostered a supportive environment that encouraged creativity and collaboration. Team members were receptive to ideas and were proactive in sharing their expertise to enhance the overall project.

### Interpersonal Communication:

Effective interpersonal communication was a cornerstone of our team's success. Regular meetings allowed for discussions on project progress, sharing insights, and addressing any challenges. The department head maintained an open-door policy, encouraging team members to seek clarification

#### Skills Needed to Work in a Team:

- **Communication Skills:** Clear and concise communication was essential to convey ideas, share progress, and ensure everyone was on the same page.
- **Collaboration:** Working collaboratively involved sharing insights, seeking input, and integrating diverse perspectives to arrive at well-rounded solutions.
- **Adaptability:** Flexibility was crucial as project requirements and objectives evolved. Being open to adapting strategies based on team discussions was important.
- **Problem-Solving:** The ability to analyze challenges and propose effective solutions allowed the team to overcome obstacles and stay on track.
- **Time Management:** Effective time management ensured that tasks were completed within set timelines, contributing to the overall project's progress.

#### Analysis of Teamwork:

The quality of teamwork and interpersonal relationships significantly contributed to the project's success. Collaborative efforts facilitated the exchange of ideas, leading to more comprehensive data analysis and insightful findings. Regular communication channels promoted transparency, minimizing misunderstandings and maximizing efficiency.

The strong interpersonal relationships within the team positively impacted the overall work atmosphere. Trust and respect among team members encouraged open sharing of ideas and feedback, fostering a culture of continuous improvement.

### Difficulties and challenges encountered during the internship.

- **Data Collection Complexity:** Gathering comprehensive real estate market data for Quebec proved challenging due to the diversity of sources and formats. Some datasets required extensive cleaning and preprocessing before analysis.
- **Data Interpretation:** Interpreting complex real estate data to extract meaningful insights presented a challenge. Ensuring that the analysis aligned with the project's objectives and effectively communicated trends required careful consideration.
- **Technical Hurdles:** Implementing advanced data analysis techniques using Python libraries

was occasionally challenging, especially when encountering unfamiliar issues or errors.

## Challenges When Performing Duties:

- **Time Constraints:** Balancing data analysis tasks with other responsibilities and deadlines posed a challenge. Ensuring timely completion of analysis while maintaining accuracy was a priority.
- **Effective Visualization:** Translating data insights into comprehensible visualizations that effectively conveyed trends and opportunities to non-technical stakeholders was challenging. Selecting the right visualizations to communicate insights clearly required careful consideration.
- **Stakeholder Alignment:** Ensuring that the insights generated were aligned with the department's objectives and resonated with industry professionals presented a challenge.

## Managing and Overcoming Difficulties and Challenges:

- **Data Collection Strategy:** I addressed the data collection challenge by identifying reputable sources and using web scraping techniques to access relevant datasets. Collaborating with the department head helped in selecting the most pertinent data sources.
- **Skill Enhancement:** To overcome technical hurdles, I proactively sought guidance from online forums and documentation. This helped me troubleshoot errors and enhance my proficiency in Python programming and data analysis libraries.
- **Communication with Team:** Regular communication with the department head ensured that my analyses were on track with project objectives. Seeking feedback and discussing potential approaches to address challenges enhanced the quality of my work.
- **Time Management:** Efficient time management was crucial. I prioritized tasks, set deadlines, and used task management tools to ensure that analysis and visualization tasks were completed within the designated timeframes.
- **Visualization Techniques:** Overcoming visualization challenges involved researching effective ways to present complex data visually. I experimented with different visualization tools and techniques to find the most suitable ones for the specific insights I wanted to convey.
- **Stakeholder Engagement:** To align insights with departmental objectives and industry needs, I engaged in discussions with the department head to understand their perspectives and preferences. This collaborative approach ensured that the generated insights were actionable.



## Learning and personal assessment of the internship

During my internship at Ecole Efficace, I underwent a transformative learning experience that significantly contributed to both my personal and professional growth. The lessons learned, technical skills acquired, and insights gained have positioned me for a promising future in the field of data analytics and business intelligence.

### Personal Contribution:

This internship allowed me to contribute meaningful insights to a real-world project, reinforcing the significance of data-driven decision-making. I developed a sense of accountability, knowing that my work directly influenced the department's strategies and students' career paths.

### Technical Training:

Through hands-on experience, I honed my technical skills in data collection, cleaning, analysis, and visualization. Python programming, statistical techniques, and data visualization tools became second nature, providing a strong foundation for my future endeavors.

### Development of Professional Management Skills:

Working in a team environment taught me effective communication, collaboration, and adaptability. I learned to align my analysis with overarching objectives, ensuring that my work contributed to broader organizational goals.

### Contribution for Job Market Application:

The practical experience gained during this internship significantly enhances my resume. Demonstrating my ability to analyze real-world data, present insights, and contribute to decision-making adds value to my job market application.

### Mobilizing Learning in Future Management Positions:

The experience of working on a project that directly impacts strategic decisions highlighted the importance of data-driven insights at a management level. In future management roles, I can leverage these skills to make informed decisions, develop effective strategies, and drive organizational success.



#### Personal Plan and Career Contributions:

Short-Term: The technical proficiency I gained will be channeled into my final academic projects, enhancing the quality of my assignments. The insights I generated during the internship will be incorporated into my academic presentations and discussions.

Mid-Term: As I transition into the job market, the skills acquired will set me apart as a candidate capable of translating data into actionable insights. The experience of working in a team and aligning analyses with organizational objectives will prepare me for collaborative work environments.

Long-Term: As I progress in my career, the lessons learned will guide me in making informed decisions that are backed by data analysis. Whether I'm leading a team or contributing to strategic planning, I'll remember the value of effective communication, stakeholder alignment, and the impact of data-driven insights.

## Conclusion

In conclusion, my internship journey at Ecole Efficace as a data analyst has been a transformative experience that encompassed various dimensions of professional development. Throughout this internship, I had the privilege of contributing to the Head of Career Development & Industry Integration department's project aimed at identifying trends and opportunities in the real estate market of Quebec. This opportunity not only allowed me to apply my technical skills but also honed my ability to collaborate within a team, align my work with strategic objectives, and communicate insights effectively.

#### Highlighted Learning and Skills Development:

One of the most captivating aspects of this internship was the depth of learning I gained. Through hands-on data analysis, I developed a profound understanding of real-world applications of data-driven decision-making. This experience enhanced my technical proficiency in data collection, preprocessing, analysis, and visualization. Equally crucial were the interpersonal skills I cultivated – effective communication, collaboration, and adaptability – as I worked closely with my team and the

#### Thinking About My Future Position:

As I reflect on the knowledge acquired, I envision myself in a role where I can leverage my data analytics skills to drive informed decisions. The experience of aligning analyses with organizational goals highlighted the strategic implications of data insights. I am now more prepared to contribute to management discussions, present insights persuasively, and develop actionable strategies.

#### Questions and Reflections on the Future:

This internship has sparked important questions about the trajectory of my career and further education. How can I continuously refine my data analysis skills to tackle complex challenges? How can I ensure that my insights create a positive impact, not only for the company but also for my personal growth? How can I leverage this experience to foster innovation and drive change in my future roles?

The consequences of this internship on my career plan are profound. It has validated my passion for data analysis and the strategic power of insights derived from it. The internship clarified my desire to pursue a career where I can merge data-driven decision-making with effective communication and leadership skills. It has driven me to consider how I can best position myself to contribute positively to organizations' growth and success.

As I move forward, this internship will undoubtedly influence my job search and training choices. I am now more inclined to seek positions that allow me to engage with data analysis in meaningful ways, translating data into actionable insights. This experience has also motivated me to seek continuous learning opportunities, such as further training in advanced data analysis techniques and effective communication strategies, to bolster my career aspirations.

#### Prospects for the Company and My Training:

For the company, my contributions during this internship can potentially lead to refined career development strategies, enhanced industry partnerships, and better-informed decisions based on data-driven insights. By identifying trends and opportunities in the real estate market, the department can align its initiatives with industry demands, positioning students for success.

For my training and professional project, this internship has equipped me with skills that go beyond technical proficiency. The exposure to collaborative teamwork, alignment with strategic objectives, and effective communication have shaped my professional identity. I am now more determined to find roles where my analytical skills merge seamlessly with my passion for creating tangible impact.

In conclusion, my internship at Ecole Efficace has illuminated a path forward that merges data analysis, strategic thinking, and effective communication. It has spurred me to actively seek opportunities that align with this path and maximize my potential to contribute meaningfully to organizations' success. This experience will undoubtedly be a cornerstone of my journey towards becoming a data-driven professional poised to make a difference in the world of business and analytics.

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## Collection of data

During my internship at Ecole Efficace as a data analyst, I employed a combination of methods to observe and collect information necessary for my project. These methods included interviews, interactions with team members, analysis of internal company documents, and direct observation of relevant data sources.

### Interviews and Interactions:

I had the opportunity to conduct interviews and engage in discussions with key stakeholders in the Head of Career Development & Industry Integration department. The most significant interaction was with the department head, who provided valuable insights into the project's objectives, expectations, and the specific challenges the department aimed to address. These interviews were conducted in a collaborative manner, where the department head shared their perspectives and goals, and I sought clarification on project requirements.

### Internal Company Documents:

To gather comprehensive data for my analysis, I had access to internal company documents related to the real estate market of Quebec. These documents included industry reports, market research findings, and academic publications. These sources proved valuable in understanding the market landscape, trends, and potential opportunities.

### Data Sources and Observations:

I collected real estate market data from reputable sources, including government agencies, industry associations, and online platforms that provide information on property prices, market trends, and economic indicators. This data collection involved web scraping techniques to extract relevant information from various websites. Observing and selecting appropriate data sources required a keen understanding of data credibility and relevance to the project's objectives.

### Confidentiality Statement:

I affirm that the information contained in this report has been presented with the utmost

confidentiality and adherence to ethical standards. All data used in the analysis was sourced from publicly available and reputable sources. Any sensitive information provided during interviews was used solely for the purpose of understanding the project's scope and objectives and was presented in an aggregated and non-identifiable manner in this report.

In summary, the methods of data collection employed during my internship at Ecole Efficace encompassed interviews, interactions with team members, analysis of internal company documents, and careful observation of relevant data sources. These methods allowed me to gather accurate and meaningful information necessary for conducting insightful data analysis and presenting valuable insights to the Head of Career Development & Industry Integration department.