



PROJECT REPORT

DATA ANALYTICS  
  
Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis

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| **Created On:** | 16-09-2023 | **Approved On:** | DD-MMM-YYYY |

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**General Instructions for using the Live Project Report Template**

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* The **text between inequality (< >) is to be replaced** by relevant text
* Please **remove the yellow highlight on the Text** between the inequality (< >). This is done to help you notice the text to be changed/replaced
* The text in *italics* highlighted in grey is just for reference and should be removed after adding the relevant text

# **PROJECT DETAILS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Name** | Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis | | |
| **Project Sponsor** | Tushar Topale | | |
| **Project Manager** | Harshada Topale | | |
| **Start Date** | 17-08-2023 | **Completion Date** | 18-09-2023 |

# **SUMMARY**

*<Explain what the project was expected to deliver, why the project was needed and what the long-term benefits have been or will be. Even though a summary is placed at the beginning of a project report, you can only write it once your entire report is complete.>*

*In the course of our data analytics internship project, we encountered several valuable lessons that significantly contributed to the project's success. These lessons spanned various categories, including data preparation, communication, project planning, team development, and project complexity. Notably, we learned to prioritize data quality through thorough validation and cleansing procedures, enhancing the reliability of our analysis. Effective communication, both in presentation to stakeholders and proactive engagement with external data sources, played a pivotal role in project management. Additionally, addressing team members' technical skills gaps through training and resources improved overall project efficiency. Lastly, accurately assessing project complexity enabled better resource allocation and timeline adjustments. These lessons underscored the importance of continuous learning and adaptation in data analytics endeavors, contributing to the overall achievement of our project objectives.*

# **INTRODUCTION**

## Background

*<Take this section from the problem statement & the discussion points from requirement elicitation meeting>*

In the backdrop of a dynamic and data-driven world, our data analytics internship project, titled "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," sought to explore the intricate interplay between socio-economic factors and student success in the educational and career domains. Against the backdrop of an ever-evolving academic and professional landscape, our project aimed to shed light on how academic performance, event participation, career aspirations, and influencing factors converge to shape the trajectory of students' educational journeys and future prospects. Leveraging the "All Events Data" dataset provided by Cloud Counselage Pvt Ltd, our analysis aimed to unearth actionable insights that can inform strategic decisions in education, career planning, and event management. This background lays the foundation for a comprehensive examination of the multifaceted relationship between students, their backgrounds, and their aspirations, contributing to a deeper understanding of the factors that drive success in the academic and professional realms.

## Stakeholders

*<Take this section from the problem statement & the discussion points from requirement elicitation meeting>*

The stakeholders in our data analytics internship project, "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," encompass a diverse spectrum of individuals and organizations. These stakeholders include educational institutions keen on improving student outcomes, prospective employers seeking insights into talent acquisition and retention, event organizers striving to tailor their offerings to student preferences, and students themselves, eager to make informed academic and career decisions. Additionally, our analysis also caters to data privacy advocates and policymakers interested in ensuring ethical and responsible data usage. Through a collaborative process involving discussions, requirement elicitation meetings, and problem statement analysis, we have identified and engaged these stakeholders to ensure that our project objectives align with their information needs, thus creating a well-rounded and impactful analysis.

## Objectives

*<Reference the objectives in the* ***Project Charter*** *and describe what has been achieved. If there were any changes to the project objectives since the* ***Project Charter*** *was approved/submission they should be documented here.>*

The primary objectives of our data analytics internship project, titled "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," are to conduct an in-depth examination of the complex relationship between student academic performance, event participation, career aspirations, and the influential socio-economic factors. We aim to extract actionable insights from the "All Events Data" dataset provided by Cloud Counselage Pvt Ltd, shedding light on the factors that shape students' educational journeys and future career prospects. By achieving these objectives, our project aims to offer valuable guidance to educational institutions, prospective employers, event organizers, and policymakers, facilitating informed decision-making and contributing to the enhancement of student success in both academic and professional spheres.

# **METHODOLOGY**

These conventions are all about the positions of line breaks, how many characters should go on a line, and everything in between.

## Considerations & Assumption

*<Mention any constraints, challenges and reasons for making the assumptions you made for delivering this project that formed to basis for working on this project>*

In undertaking our data analytics internship project, "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," several key considerations and assumptions have guided our approach. We acknowledge that the accuracy and reliability of our analysis depend on the quality and completeness of the "All Events Data" dataset provided by Cloud Counselage Pvt Ltd. Additionally, we assume that the data is representative of a diverse student population and that any identified patterns or insights are applicable within the context of the provided dataset. We also consider that privacy and ethical concerns related to data handling and analysis will be addressed through responsible practices. Furthermore, our project assumes that the stakeholders' requirements and information needs have been accurately captured and incorporated into our analysis framework. These considerations and assumptions underpin the methodology and scope of our project, ensuring a robust and meaningful exploration of the subject matter.

## Approach

*<Mention the structured approach you adopted to solve the problem and why. Keep it conceptual>*

Our approach to conducting the data analytics internship project, "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," involves a systematic and multi-faceted methodology. Initially, we performed data preprocessing, including data cleaning and validation, to ensure the dataset's accuracy and reliability. Subsequently, we conducted exploratory data analysis (EDA) to identify trends, correlations, and patterns within the data. We then employed various statistical and machine learning techniques to derive meaningful insights related to student academic performance, event participation, career aspirations, and socio-economic factors. These insights were further analyzed in the context of stakeholder requirements to provide actionable recommendations. Our approach encompasses rigorous data analysis, effective visualization, and a continuous feedback loop with stakeholders to ensure that our findings are relevant, actionable, and aligned with the project's objectives.

## Activities

*<Mention the activities you performed to deliver the project. E.g. requirement gathering, planning, etc.>*

Throughout the course of our data analytics internship project, titled "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," we engaged in a series of key activities to drive the project forward. These activities encompassed data collection and acquisition, data preprocessing to ensure data quality, exploratory data analysis (EDA) to uncover initial insights, application of statistical and machine learning techniques for in-depth analysis, visualization of findings for effective communication, and regular interactions with stakeholders to align our analysis with their needs and expectations. Additionally, we conducted thorough documentation of methodologies, results, and lessons learned to ensure transparency and replicability. These activities collectively formed the foundation for a comprehensive and successful project, enabling us to fulfill our objectives effectively.

# **TARGETTED V/S ACHIEVED OUTPUT**

*<Mention the targeted output in the project plan and against it what you have been able to achieve. Also mention the reason of deviation. Please remember the deviations will not impact the evaluation and the results of your internship. This sections will help you to analyse the results and understand the cause for deviation that will be lessons learnt for you and would help you to perform better in the next project>*

In comparing our targeted outputs with the achieved results in the project plan, we encountered several noteworthy deviations. Our initial plan aimed to achieve a specific set of outcomes, including precise data quality benchmarks, insights into academic performance factors, and actionable recommendations for stakeholders. However, during the course of the project, we encountered deviations primarily due to data quality challenges, such as missing values and inconsistencies, which required additional time for thorough data preprocessing. While these deviations did not affect the overall evaluation and results of our internship, they served as valuable lessons learned. These challenges underscored the significance of meticulous data preparation and its potential to impact project timelines. Reflecting on these deviations, we have gained valuable insights that will inform our approach in future projects, ensuring more efficient and effective data analytics processes.

# **CONCLUSION**

*<Mention the how it will prove to be useful for the stakeholders and what can be the future scope>*

In conclusion, our data analytics internship project, "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis," has provided a rich and insightful exploration of the complex interplay between socio-economic factors and student success in the realms of education and career. Through meticulous data analysis, we unearthed valuable patterns and correlations, shedding light on the factors that influence academic performance, career aspirations, and projected salary expectations. Our findings offer actionable insights for educational institutions, employers, event organizers, and policymakers, enabling them to make informed decisions that can positively impact students' academic journeys and future prospects. While the project presented challenges and deviations from our initial plan, these experiences have contributed to our growth and understanding of data analytics, reinforcing the importance of rigorous data preparation and adaptability in the field. Overall, this internship has been a valuable learning experience, underscoring the power of data-driven insights in shaping a more informed and prosperous future for students and stakeholders alike.

**APPENDICES**

## Appendix A – Title

|  |  |
| --- | --- |
| Component | Description |
| Data Set | "All Events Data" provided by Cloud Counselage Pvt Ltd |
| Project Title | "Socio-Economic Factors and Their Impact on Student Academic Performance, Competence, and Projected Salary: A Comprehensive Analysis" |
| Stakeholders | Educational institutions, employers, event organizers, policymakers, and students |
| Objectives | To analyze the relationship between academic performance, event participation, career aspirations, and socio-economic factors |
| Considerations & Assumptions | Data quality, representativeness, and privacy considerations; stakeholder alignment |
| Approach | Data preprocessing, exploratory data analysis, statistical and machine learning techniques, visualization, stakeholder interactions |
| Activities | Data collection, data preprocessing, EDA, analysis, visualization, documentation, stakeholder engagement |