**Unit 9: Data Analytics Team Plan**

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**Large Team Organization**

**Roles and Responsibilities**

***Project manager***

This team member will be responsible for planning and executing the overall projects given to the data analytics team. They will manage timelines, resources, and budgets. Finally, they will be responsible for communicating with the higher-level executives and other stakeholders of the project.

***Data Scientist***

These members will develop and implement machine learning models and algorithms. They conduct exploratory analysis of the data to discover patterns and insights. They also collaborate with domain experts to understand the problem set.

***Data Analyst***

Data analysts are responsible for analyzing information to determine patterns, trends, and insights. They also create visualizations that will be considered output for delivering to the customers. They must work well with the data scientists and data engineers to manage the data pipeline.

***Data Engineer***

These members are responsible for building and maintaining the infrastructure for data generation, transformation, and storage. They maintain the ETL process. They also ensure that data quality and integrity are maintained.

***General IT***

This team will consist of client support technicians, system administrators, and database administrators. The team will have a strong background in maintaining cloud infrastructure and both SQL and NoSQL databases. These members will be responsible for ensuring cybersecurity requirements are met and reviewing security logs.

**Team Composition**

The team will be composed of two project managers, four data scientists, ten data analysts, two data engineers, two database administrators, three system admins, and two client support technicians. One project manager will be considered the junior PM and the other will be the lead PM. This will allow for each to take time off and assist each other in the PM tasks.

Two data scientists will have the title of senior data scientist and the other two will be considered junior. Two data senior data analysts will each lead a team of four junior analysts. There will be one senior and one junior data engineer. One system admin will be titled the senior SA and will also be the lead of the general IT team.

**Leadership Functionality**

The team will function in an agile method. This will allow anyone to voice their opinion about matters that impact the team. It will create a flatter organization and give everyone a better feeling of having a stake in the team’s success.

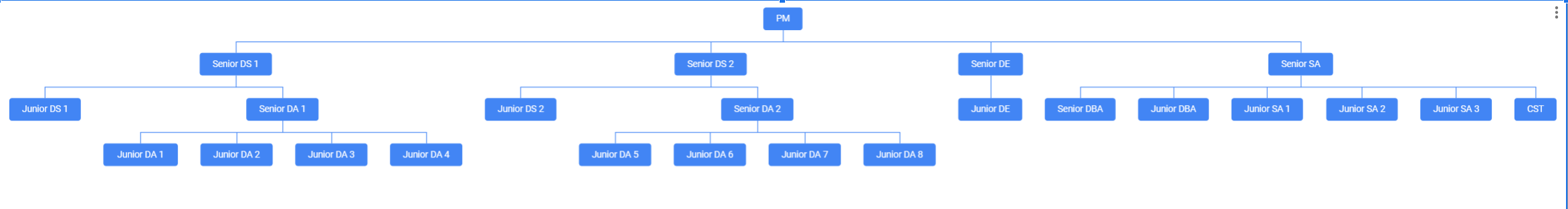
The PM will be the main facilitator between the cross-functional teams. They will also be responsible for orienting the team in a common direction of producing useful analytics and visualizations. The general teams will fall into the following competencies: analytics, data engineering, and general IT. The senior data scientist will lead the analytics portion. The senior data engineer will lead the data engineering team, and the senior system admin will lead the IT team.

**Strategy Plan**

To harness the full potential of our data analytics team, we will adopt a comprehensive strategy that focuses on collaboration, innovation, and data-driven decision-making. The first pillar of our strategy revolves around team composition and collaboration. We will ensure that our diverse team of data analysts, scientists, and engineers collaborates seamlessly by fostering a culture of open communication and knowledge sharing.

The second pillar of our strategy centers on technology and innovation. We will invest in cutting-edge data analytics tools and technologies to optimize data processing, enhance model accuracy, and improve visualization capabilities. Regular training sessions will be organized to keep the team abreast of emerging trends in data analytics and to foster a culture of continuous learning. Furthermore, we will encourage experimentation and innovation by allocating time for team members to work on exploratory projects that push the boundaries of traditional analytics.

**Organization Chart**

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**Where Data Analytics Team Sits in the Organization**

The data analytics team will sit as a centralized data office. It will report directly to the C-level managers. The senior data scientists and data engineers will sit on the data governance board.

**Annual Budget**

The budget will consist of personnel, facilities, equipment, and training. The following tables will be used for the next five years’ budgets. The total annual budget comes to $9.255 million.

***Personnel Breakdown***

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Positions | Annual Salary | Total |
| PM | 1 | $93,000 | $93,000 |
| Senior Data Scientist | 2 | $140,000 | $280,000 |
| Junior Data Scientist | 2 | $110,000 | $220,000 |
| Senior Data Analyst | 2 | $91,000 | $182,000 |
| Junior Data Analyst | 8 | $75,000 | $600,000 |
| Senior Data Engineer | 1 | $115,000 | $115,000 |
| Junior Data Engineer | 1 | $100,000 | $100,000 |
| Senior System Admin | 1 | $105,000 | $105,000 |
| Junior System Admin | 2 | $70,000 | $140,000 |
| DBA | 2 | $95,000 | $190,000 |
| CST | 2 | $60,000 | $120,000 |
| Total | **25** |  | **$2,145,000** |

***Other Expenses***

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Quantity | Unit Cost | Total |
| 16” MacBook Pros | 25 | $5,399 | $135,000 |
| On-Prem Servers | 2 | $200,000 | $400,000 |
| AWS Costs | N/A | N/A | $2,000,000 |
| Software Licenses | 25 | N/A | $50,000 |
| Facility Rent | N/A | N/A | $3,500,000 |
| Facility Utilities | N/A | N/A | $1,000,000 |
| Training | 25 | $5,000 | $125,000 |
| Total | **25** |  | **$7,110,000** |

**Communication Plan**

**Internal**

To foster effective internal communication within the data analytics team, regular team meetings will be scheduled to discuss ongoing projects, share insights, and address any challenges. Additionally, a collaborative digital platform will be implemented to facilitate real-time information exchange, enabling team members to share resources, best practices, and updates on individual project progress. Monthly knowledge-sharing sessions and skill-building workshops will be organized to enhance the team's expertise and ensure everyone is aligned with the latest industry trends and tools.

**External**

Externally, the data analytics team will implement a structured reporting and presentation strategy to effectively communicate insights and findings to key stakeholders across the organization. Tailored reports, dashboards, and visualizations will be created to convey complex analyses in a comprehensible manner, ensuring that decision-makers can easily interpret and act upon the information provided. Regular stakeholder meetings will be scheduled to review analytics outcomes, gather feedback, and align the team's efforts with broader organizational objectives.

**Senior-Level Briefing**

The above team plan will ensure that the data analytics team is set up for continued success over the next five years. $10 million will be allocated per year to advance this endeavor. 25 team members will be hired to create three sub-teams. The company will greatly benefit from the insights that will continuously come out of this new data analytics team.