A Major Project Synopsis on

***Internship at Xebia***

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Towards the partial fulfillment for the Award of the Degree of

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By

Nidhi Jangir

23FS20MCA00016



Under the guidance of

Dr. Timothy Malche

**Department of Computer Applications**

**School of AIML, IoT&IS, CCE, DS and Computer Applications**

**Faculty of Science, Technology and Architecture**

**Manipal University Jaipur**

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**Internship at Xebia: Empowering Data-Driven Decision Making**

Embarking on an internship at Xebia is more than just gaining work experience — it’s about harnessing the power of data to drive meaningful insights and contribute to innovative solutions in the BFSI (Banking, Financial Services, and Insurance) sector.

Xebia stands at the forefront of delivering cutting-edge data analytics solutions, leveraging tools such as **MS Fabric, MS Azure, Power BI Service, and Power Apps**. During my internship, I have been actively involved in the **BFSI – One View Dashboard project**, which offers predictive insights and tracks evolving trends in the banking sector.

1. **Data-Driven Insights:**

*  Developed detailed reports on **assets, liabilities, fraud analysis, debt recovery, and compliance audit and readiness**.
* Utilized Power BI to visualize complex financial data, enabling better decision-making.

1. **Technological Expertise:**

* Worked with **MS Fabric and MS Azure** to integrate and manage large-scale financial data.
* Leveraged **Power BI Service** for report sharing and real-time data updates.

1. **Impactful Contributions:**

* Designed dashboards that provide actionable insights, aiding in fraud detection and trend forecasting.
* Improved data accessibility and interpretation through interactive visualizations.

1. **Motivation**

My internship at Xebia is driven by the ambition to enhance my technical expertise and contribute to impactful, real-world data analytics solutions. The experience is shaping my skills in data visualization, predictive analysis, and reporting, while allowing me to work with cutting-edge tools.

1. **For Personal and Professional Growth:**

* Strengthen my proficiency in **Power BI, MS Fabric, and Azure**.
* Apply analytical skills to interpret and present complex financial data effectively.
* Gain hands-on experience in building scalable and dynamic dashboards.

1. **For Industry Advancement:**

* Contribute to data-driven solutions that **enhance banking sector efficiency**.
* Improve fraud detection accuracy through detailed reporting and visualizations.
* Support compliance and audit processes with automated, real-time dashboards.

1. **For a Data-Driven Future:**

* Participate in creating **predictive models** that help financial institutions make informed decisions.
* Help organizations leverage data for **better risk management and operational efficiency**.

This internship isn’t just a stepping stone — it’s a transformative experience that bridges academic learning with industry expertise, inspiring me to pursue excellence while contributing to a future driven by connectivity and innovation.

1. **Problem Statement**
   1. **Data Fragmentation and Siloed Systems :**

* Banking data is often spread across multiple platforms, making it difficult to obtain a **holistic view of financial performance**.
* Fragmented data sources hinder efficient analysis and decision-making.
* The absence of a centralized dashboard increases **data retrieval time** and affects operational efficiency.
  1. **Inefficient Fraud Detection :**
* Fraudulent activities in the BFSI sector are on the rise, but traditional fraud detection methods are **manual and reactive**.
* Detecting suspicious transactions requires **extensive data analysis**, which is time-consuming.
* Existing systems lack **predictive capabilities**, making it harder to identify potential risks proactively.
  1. **Complexity in Compliance and Audit :**
* Banks and financial institutions are required to comply with stringent regulatory standards.
* Manual auditing processes are labor-intensive, error-prone, and time-consuming.
* Ensuring real-time compliance reporting is difficult without an automated, dynamic dashboard.
  1. **Lack of Predictive Insights for Debt Recovery :**
* Debt recovery processes often rely on historical data and manual tracking, making them inefficient.
* The absence of predictive models makes it challenging to forecast potential defaulters or overdue payments.
* Manual debt recovery tracking lacks the ability to prioritize high-risk cases, leading to delayed actions.
  1. **Limited Data Visualization Capabilities :**
* Raw financial data is often complex and difficult to interpret without proper visualization.
* Traditional reporting methods provide static, tabular outputs, which lack interactivity.
  1. **Absence of Real-Time Data Updates :**
* Without **real-time data integration**, reports become outdated, leading to delayed decision-making.
* Financial institutions need **live data feeds** to monitor ongoing transactions and compliance in real time.
* The lack of continuous data refresh reduces the effectiveness of fraud detection and audit processes.

1. **Methodology/ Planning of work:**
2. **Requirement Analysis**

* Gathered detailed requirements related to banking assets, liabilities, fraud patterns, and compliance metrics.
* Identified key metrics and performance indicators for the One View Dashboard.

1. **Data Collection and Integration**

* Extracted data from Azure-based banking systems.
* Integrated the data into MS Fabric for centralized access and management.

1. **Dashboard Development**

* Created interactive dashboards using Power BI to visualize financial trends.
* Built reports for:
* **Assets and liabilities:** Displaying financial health metrics.
* **Fraud analysis:** Identifying suspicious transaction patterns.
* **Debt recovery:** Tracking overdue payments and recovery rates.
* **Compliance audit:** Ensuring adherence to regulatory standards.

1. **Predictive Analysis Implementation**

* Used **DAX functions** to create predictive models, identifying trends in:
  + Loan defaults.
  + Fraud occurrence probabilities.
  + Debt recovery effectiveness

1. **Testing and Validation:**

* Validated the accuracy of data by cross-verifying with source systems.
* Ensured the dashboards provide real-time insights with minimal latency.

1. **Optimization and Refinement:**

* Applied performance optimization techniques to improve report loading times.
* Enhanced dashboard responsiveness for large datasets.

1. **Requirements for proposed work:**
2. **Software Requirement:**

* Operating System: Windows 10 or later.
* Technologies Used:
  + - **MS Fabric for data integration and management.**
    - **MS Azure for cloud-based data storage and processing.**
    - **Power BI Service for report sharing and real-time updates.**
    - **Power Apps for creating user-friendly interfaces.**

1. **Hardware Requirement:**

* **Processor:** Intel i5 or above (Quad-core recommended for faster processing)
* **RAM:** Minimum 8GB (16GB recommended for handling large datasets. )
* **Storage:** 256GB SSD or higher for faster read/write performance (HDD can slow down processing)

1. **Bibliography/References**

* **Microsoft Power BI Documentation:** Official guidelines on Power BI features and best practices.
* **Azure Documentation:** Microsoft Azure official documentation on cloud services and data management.
* **MS Fabric Documentation:** Best practices for data integration and visualization.
* **Banking Sector Reports:** Industry reports and publications on financial trends and analysis.