

Day 1 Summary – FDP on Business Analytics

Day 1 focused on introducing **Business Analytics**, its types (Descriptive to Prescriptive), and the difference between **BI, Analytics, and Data Science**. The second session covered key **statistical concepts** like mean, variance, correlation, and probability. In the practical Excel session, participants learned **data cleaning, Goal Seek, advanced VLOOKUP, INDEX-MATCH**, and created **pivot charts** for business reports. The session emphasized real-world use of Excel for analysis and decision-making, building a strong base in analytical thinking.

✂ **Tools Used:** Excel

📊 **Topics:** Business Analytics, Statistics, Excel Functions, Visualization

Youtube Video Link

Part1:

<https://www.youtube.com/watch?v=cZoSugB34YU&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=2>

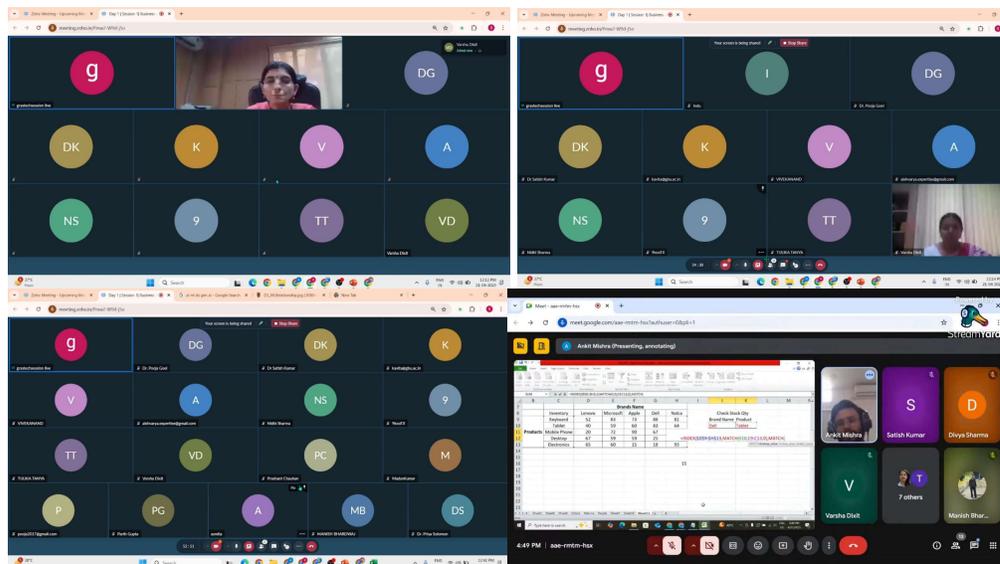
Part2:

<https://www.youtube.com/watch?v=E2MW1oJjpKM&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=3>

Day 1 Session Part 1 and 2 Date 21-04-2025

Session 1: 11:00 Am to 1:30 Pm

Session 2: 2:00 Pm to 4:30 Pm



Day 2 Summary – FDP on Business Analytics

Day 2 focused on the importance of documentation and visualization in business analysis. Participants learned to create **Business Requirement Documents (BRDs)** and **Functional Requirement Documents (FRDs)**, aligning business objectives with technical solutions while emphasizing **SMART goals** and the **Software Development Life Cycle (SDLC)**. In the hands-on **Power BI** session, they explored **data transformation**, built **interactive dashboards**, and used **DAX functions** to extract meaningful insights. The session also covered **data storytelling principles**, designing effective **KPIs**, and avoiding common visualization mistakes, equipping participants with the skills to present data clearly and effectively.

Tools like **Microsoft Power BI**, **Figma/Balsamiq** for wireframes, and **MS Word/Docs** for BRD/FRD creation were utilized throughout the training, supporting a practical and comprehensive learning experience.

Youtube Video Link

Part1:

<https://www.youtube.com/watch?v=LEsIXOp5qxE&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=4>

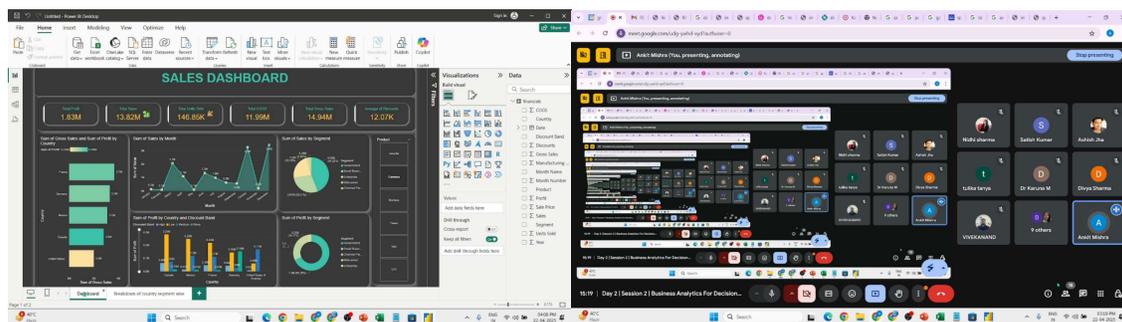
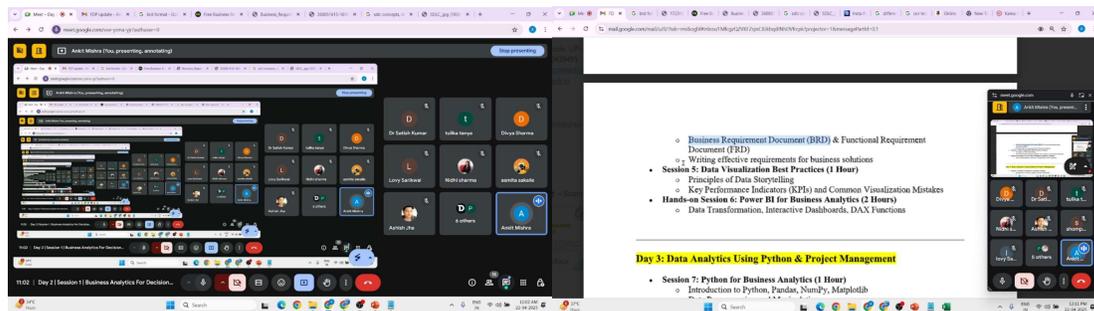
Part2:

https://www.youtube.com/watch?v=9HJ_hxoVCq0&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=5

Day 2 Session Part 1 and 2 Date 22-04-2025

Session 1: 10:30 Am to 1:00 Pm

Session 2: 1:30 Pm to 4:00 Pm



Day 3 Summary – FDP on Business Analytics

Day 3 focused on integrating Python programming with business analytics and project management. Participants learned **data preprocessing, analysis, and visualization** using **Pandas, NumPy, and Matplotlib**, applying these skills to a real-world **Zomato EDA case study**. The session emphasized cleaning, analyzing, and visualizing data through univariate, bivariate, and multivariate techniques. In project management, participants explored **Agile vs. Waterfall methodologies**, wrote **user stories**, and learned about **Critical Path Method** and stakeholder communication. The day balanced **technical hands-on Python training** with essential **project planning frameworks**, enhancing the ability to derive insights and manage projects effectively.

✂ Tools & Topics Covered:

Python, Pandas, NumPy, Matplotlib, Agile & Waterfall, EDA, Zomato Dataset, Forecasting, User Stories, CPM, Data Cleaning, Visualizations (heatmaps, bar/pie charts)

Youtube Video Link

Part1: <https://www.youtube.com/watch?v=Cuzm-UcV-I&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=6>

Part2: https://www.youtube.com/watch?v=t_zybWMxzA&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=7

Day 3 Session Part 1 and 2 Date 23–04–2025

Session 1: 11:00 Am to 1:30 Pm

Session 2: 2:30 Pm to 5:00 Pm

City	Count
Bangalore	2245
Mumbai	2022
Pune	1840
Chennai	1827
New Delhi	1704
Japur	1393
Kolkata	1259
Hyderabad	1243
Goa	1143
Lucknow	1126
Bangor	1019
Indore	1025
Coimbatore	970
Noida	960
Surat	958

Day 4 Summary – FDP on Business Analytics

On Day 4, participants dived into advanced data visualization using **Tableau** and **Looker Studio**, with a strong focus on **storytelling with data**, **dashboard design**, and **real-world business use cases**. The day began with a comparison of **Power BI**, **Tableau**, and **Looker Studio** based on **usability**, **pricing**, and **cloud integration**. Practical case studies like **customer churn analysis** and **sales forecasting** showcased the value of visual analytics. Hands-on sessions enabled participants to connect data sources, build dashboards, apply best practices, and explore key **SQL concepts** such as **CRUD operations**, **joins**, and **data export** using **MySQL**, reinforcing the role of databases in enhancing BI tools for impactful decision-making.

✂ Tools & Topics Covered:

Tableau, Looker Studio, Power BI (comparison), MySQL, SQL (SELECT, JOIN, GROUP BY, CRUD), RDBMS, Dashboard Design, Storytelling with Data, Business Use Cases (Customer Churn, Sales Forecasting), Cloud Infrastructure, KPIs, Slicers, Interactive Reports, Visual Best Practices.

Youtube Video Link

Part1:

<https://www.youtube.com/watch?v=xRSKuaVT3mk&list=PLKRfRnTXFszKz7M8SZWfNQrbC3HQ2cFLP&index=8>

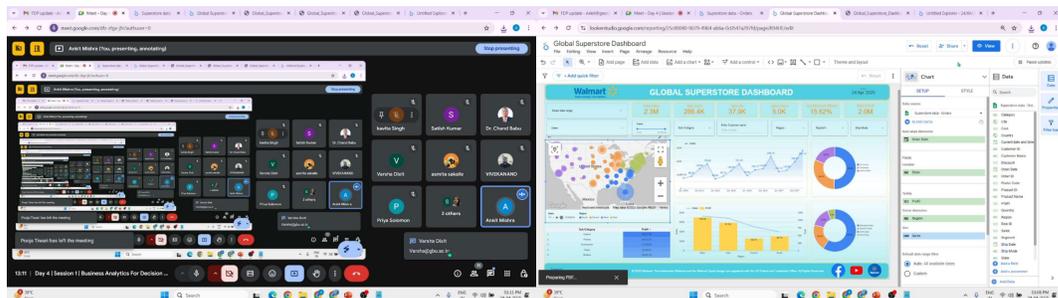
Part2:

<https://www.youtube.com/watch?v=HCEmiixvY7c&list=PLKRfRnTXFszKz7M8SZWfNQrbC3HQ2cFLP&index=9>

Day 4 Session Part 1 and 2 Date 24-04-2025

Session 1: 11:00 Am to 1:30 Pm

Session 2: 2:30 Pm to 5:00 Pm



```
53
54 + select order_priority, round(sum(total_revenue),0) as Final_Total_revenue
55 + from hugebig_data
56 + group by order_priority
57 + order by Final_Total_revenue desc;
58
```

The screenshot shows a MySQL query editor with a SQL query that calculates the total revenue for each order priority. The query is as follows:

```
select order_priority, round(sum(total_revenue),0) as Final_Total_revenue
from hugebig_data
group by order_priority
order by Final_Total_revenue desc;
```

Day 5 Summary – FDP on Business Analytics

On Day 5, participants delved into an intensive **Tableau hands-on workshop**, mastering advanced features like **filters, parameters, calculated fields, table calculations, and KPI cards**. Real-world dashboards were created for HR, sales, and marketing domains, focusing on storytelling, interactivity, and insight generation. The session **explored AI integration, forecasting, trend analysis, and geospatial visualization**. **Capstone projects** allowed participants to apply these concepts by solving industry-specific problems. The workshop concluded with best practices for publishing dashboards to **Tableau Public/Server and real-time analytics** usage in BFSI, retail, and IT. Emphasis was placed on Tableau's cross-platform versatility and role in modern data-driven decision-making.

✂ Tools & Topics Covered:

Tableau Desktop, Tableau Public, Tableau Cloud, Tableau Prep, Filters, Parameters, Actions, Calculated Fields, Table Calculations, KPI Cards, Maps, Forecasting, Trend Lines, Geospatial Visualization, Publishing Dashboards, Real-Time Analytics, HR Attrition Analysis, Sales & Marketing Dashboards, Capstone Project, AI Features in Tableau, Data-Driven Decision Making, Cross-Platform BI Tools, BFSI/Retail/IT Use Cases.

Youtube Video Link

Part1:

<https://www.youtube.com/watch?v=WrqVhrWA7P0&list=PLKRfRnTXFszKz7M8SZWfNQrbc3HQ2cFLP&index=10>

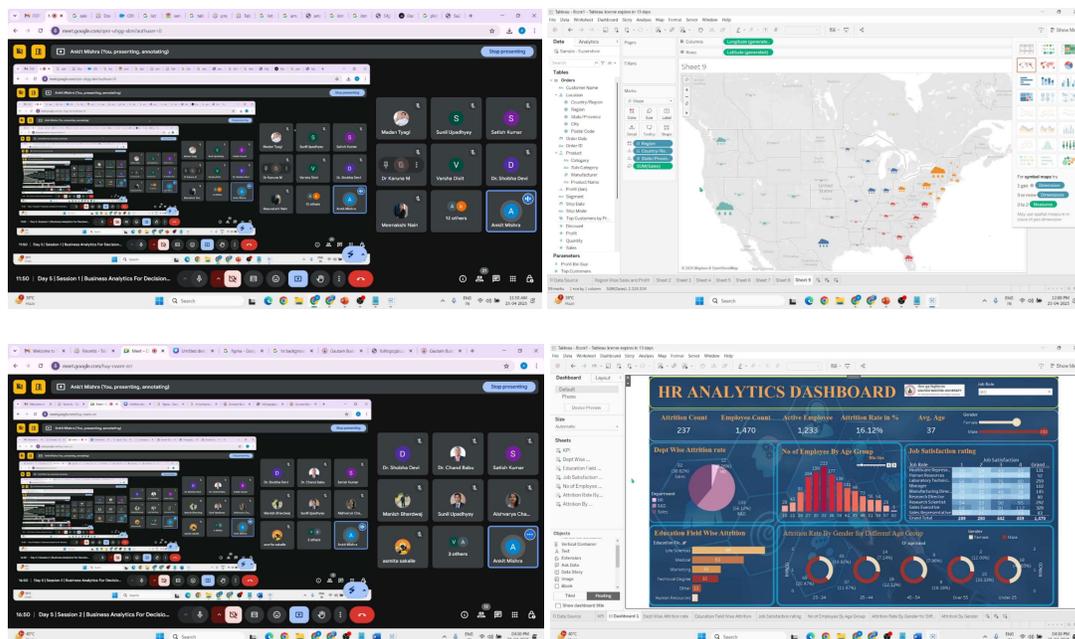
Part2:

<https://www.youtube.com/watch?v=1DmHg0ylz74&list=PLKRfRnTXFszKz7M8SZWfNQrbc3HQ2cFLP&index=11>

Day 5 Session Part 1 and 2 Date 25–04–2025

Session 1: 11:00 Am to 1:30 Pm

Session 2: 2:30 Pm to 5:00 Pm



Day 6 Summary – FDP on Business Analytics

On Day 6, participants explored core machine learning (ML) concepts through theory and practical coding in Python. The session covered supervised, unsupervised, semi-supervised, and reinforcement learning, focusing on algorithms like linear regression, logistic regression, decision trees, Naïve Bayes, and SVM. A hands-on project using the Iris dataset demonstrated model training, testing, and evaluation with accuracy, confusion matrix, and classification reports. Techniques for error analysis (MAE, MSE, RMSE) and issues like overfitting/underfitting were addressed. Visualization with Matplotlib helped participants better interpret data relationships and predictions. The session emphasized practical implementation, model evaluation, and future growth in AI and analytics.

✂ Tools & Topics Covered:

Python, Pandas, NumPy, Scikit-learn, Matplotlib, Jupyter Notebook, Supervised Learning, Unsupervised Learning, Reinforcement Learning, Semi-Supervised Learning, Linear Regression, Logistic Regression, Decision Trees, Naïve Bayes, Support Vector Machines (SVM), Deep Learning (Intro), Iris Dataset Project, Data Preprocessing, Model Training & Testing, Confusion Matrix, Classification Report, Precision, Recall, F1 Score, Error Metrics (MAE, MSE, RMSE), Overfitting vs Underfitting.

Youtube Video Link

Part1:

<https://www.youtube.com/watch?v=x4N27sI9cFY&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=12>

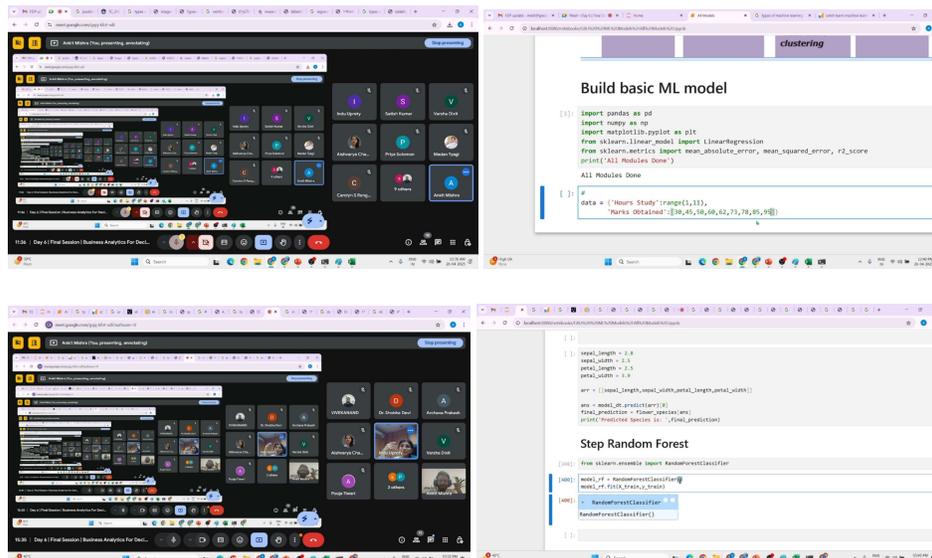
Part2:

<https://www.youtube.com/watch?v=hMUubOvB9e0&list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&index=13>

Day 6 Session Part 1 and 2 Date 26–04–2025

Session 1: 11:00 Am to 1:30 Pm

Session 2: 2:30 Pm to 5:00 Pm



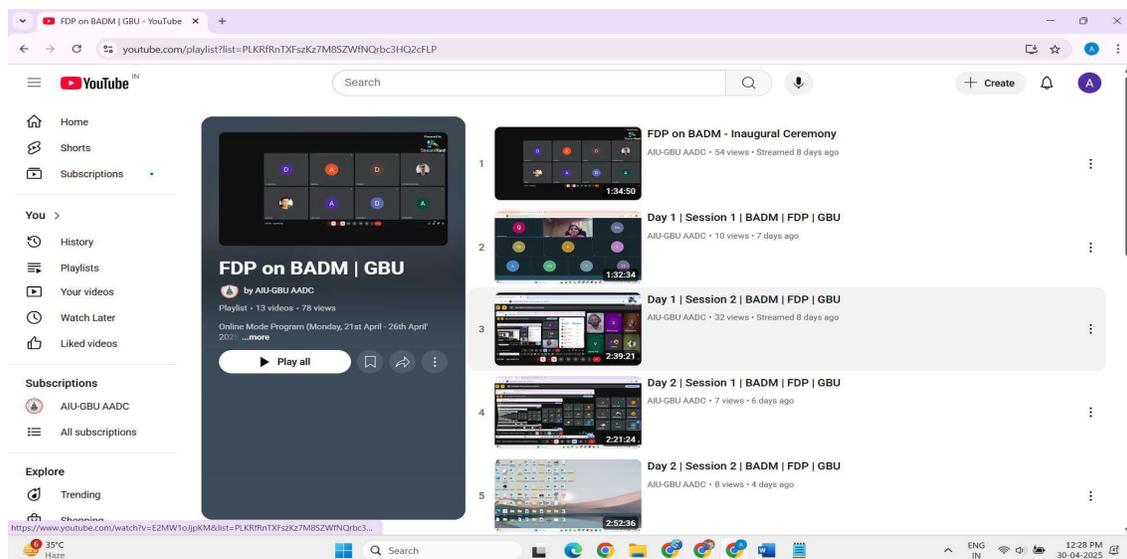
Program Takeaways:

The *Faculty Development Program on Business Analytics for Decision Making* provided an immersive and hands-on experience that empowered participants with modern tools, practical knowledge, and real-world applications. Throughout the sessions, participants gained deep insights into **business analytics fundamentals**, statistical thinking, and the role of **data-driven decision-making** in various industries. The program emphasized not just theoretical understanding, but also practical implementation across tools like **Excel, Power BI, Tableau, SQL, Python, and Machine Learning** frameworks.

A major focus was on equipping educators with the ability to **analyze, visualize, and communicate data effectively**, using advanced visualization platforms such as Tableau and Looker Studio, and applying best practices in dashboard design and storytelling. Additionally, participants explored **data preprocessing, exploratory data analysis (EDA)**, and the use of **ML algorithms** like linear regression, logistic regression, decision trees, and SVMs through hands-on coding sessions. Emphasis was laid on **model evaluation, error metrics**, and understanding real-time industry problems through **capstone projects** and case studies.

Participants also learned about **project planning methodologies**, including Agile and Waterfall, created business and functional requirement documents, and gained exposure to advanced features like **KPI cards, geospatial visualizations, and AI-powered analytics**. These skills are essential in today's evolving data landscape, preparing participants to deliver more impactful insights in both academic and industry environments.

This FDP has empowered educators with practical tools and knowledge to integrate analytics into their teaching, research, and decision-making—bridging the gap between academia and industry. It has sparked a mindset of continuous learning, encouraging participants to become champions of data literacy and innovation in their institutions.



<https://youtube.com/playlist?list=PLKRfRnTXFszKz7M8SZWfNQRbc3HQ2cFLP&feature=s>
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