

Business Analytics & Data Visualization Internship

(15 Days | Practical-Oriented | Industry Ready)

INTERNSHIP SYLLABUS

Internship Objectives

- Understand **business data & KPIs**
- Perform **data cleaning & analysis**
- Build **interactive dashboards**
- Convert data into **business decisions**
- Gain confidence to do **independent analytics projects**

Tools & Technologies

- MS Excel (Advanced)
- SQL
- Python (Pandas, NumPy, Matplotlib, Seaborn)
- Power BI / Tableau
- Google Data Studio (Optional)
- Real Business Datasets

DAY 1 – Introduction to Business Analytics

- What is Business Analytics?
- Types: Descriptive, Diagnostic, Predictive, Prescriptive
- Business use cases (Sales, Marketing, HR, Finance)

Practical:

Analyze sample business reports

Identify KPIs from real company data

DAY 2 – Understanding Business Data

- Structured vs Unstructured data
- Data sources: ERP, CRM, POS, Excel
- Data quality & data ethics

Practical:

Explore raw business datasets

Identify missing & inconsistent data

DAY 3 – Advanced Excel for Analytics

- Lookup functions (VLOOKUP, XLOOKUP)
- Pivot Tables & Pivot Charts
- Conditional formatting

Practical:

Sales performance analysis in Excel

Monthly & yearly reports

DAY 4 – Excel Dashboards

- KPI dashboards
- Charts for business decisions
- Excel automation basics

Practical:

Build interactive Excel dashboard

Sales & profit tracking

DAY 5 – SQL for Business Analytics

- SQL basics (SELECT, WHERE, GROUP BY)
- Joins & aggregations
- Business queries

Practical:

Customer & sales database analysis

Revenue & region-based insights

DAY 6 – Python for Data Analysis

- Python basics for analytics
- Pandas DataFrames
- Data cleaning techniques

Practical:

Clean business dataset using Pandas

Handle missing values

DAY 7 – Data Visualization with Python

- Matplotlib & Seaborn
- Choosing the right chart
- Storytelling with data

Practical:

Sales trend visualization

Customer behavior analysis

DAY 8 – Business Statistics

- Mean, Median, Mode
- Correlation & distribution
- Business interpretation

Practical:

Customer purchase analysis

Profit vs cost analysis

DAY 9 – Introduction to Power BI / Tableau

- BI tools overview
- Data modeling
- Connecting data sources

Practical:

Import Excel/CSV into BI tool

Build basic visuals

DAY 10 – Dashboard Design Principles

- Visual hierarchy
- Business storytelling
- UX principles for dashboards

Practical:

Design executive dashboard

KPI cards & slicers

DAY 11 – Advanced BI Dashboards

- Filters & drill-down
- Time intelligence
- Real-time insights

Practical:

Interactive sales dashboard

Regional performance analysis

DAY 12 – Business Case Studies

- Retail analytics
- Marketing campaign analysis
- HR analytics

Practical:

Solve real business problems

Present insights

DAY 13 – Mini Project

- Project selection
- Data collection
- Analysis plan

Practical:

Sales forecasting

Customer churn analysis

Profitability dashboard

DAY 14 – Project Development

- Data cleaning & visualization
- Dashboard creation
- Insight generation

Practical:

Complete project dashboard

Business recommendation report

DAY 15 – Project Presentation & Assessment

- Project demo
- Business storytelling
- Career guidance