

Data Analysis

A comprehensive 45-hour journey from beginner to intermediate level, covering Excel, Power BI, MySQL, and Python for modern data analysis.





Course Overview

Duration

45 intensive hours of hands-on learning

Level

Beginner to Intermediate progression

Institution

ST. BEDE'S COLLEGE, SHIMLA

Instructor

Rishi

Learning Journey

01

Advanced Excel

Master PivotTables, VBA, and advanced formulas for powerful data manipulation

03

MySQL

Database management and SQL queries for data extraction

02

Power BI

Create interactive dashboards and compelling data visualizations

04

Python

Programming for advanced analytics and machine learning basics

Module 1: Advanced Excel

Power Features (2 hrs)

- PivotTables mastery
- Advanced lookups
- Complex formulas

Data Tools (5 hrs)

- Data cleaning techniques
- Goal Seek & Solver
- Statistical functions

Automation (2 hrs)

- Excel Macros
- VBA programming
- Process automation



Module 2: Power BI Excellence

1

Foundation (2 hrs)

Interface navigation and basic concepts

2

Data Modeling (3 hrs)

Building robust data relationships

3

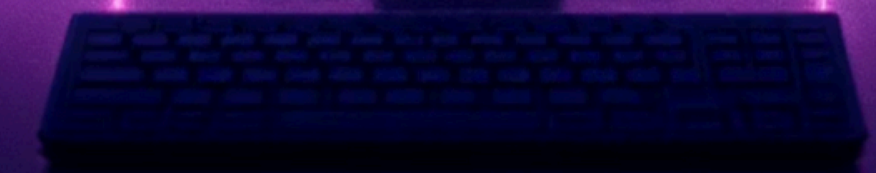
Dashboard Creation (3 hrs)

Interactive visualizations and reports

4

Publishing & Security (4 hrs)

Sharing reports and advanced security features



Module 3: MySQL Mastery



Database Basics

Introduction to databases and SQL fundamentals (2 hrs)



Data Manipulation

SQL queries, insertions, and updates (4 hrs)

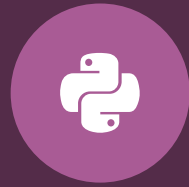


Advanced Queries

Complex SQL operations and optimization (2 hrs)



Module 4: Python for Data Analysis



Python Fundamentals

Core programming concepts and syntax for data analysis (3 hrs)



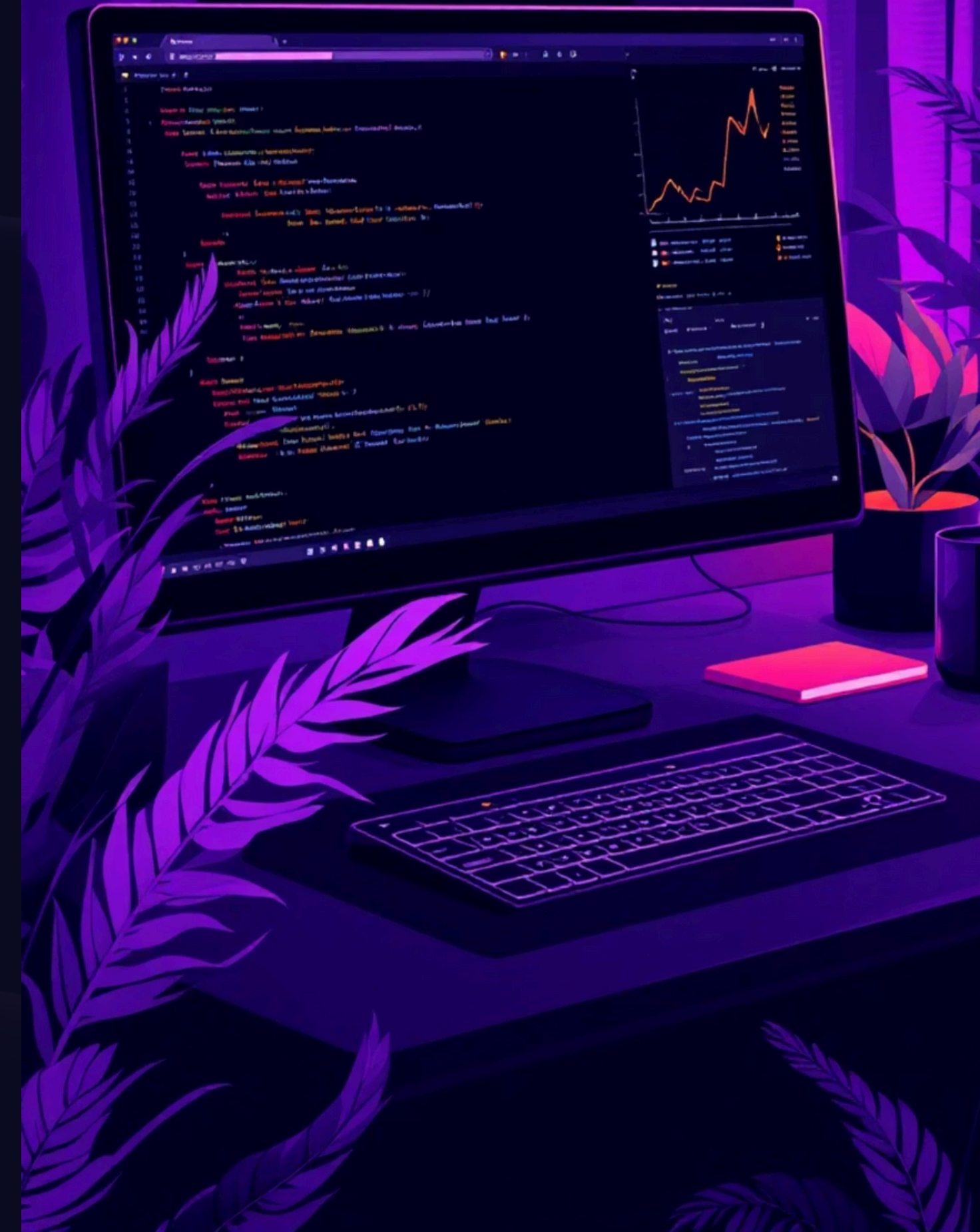
Pandas Mastery

Data manipulation and transformation with pandas library (3 hrs)



Exploratory Analysis

Statistical analysis and data visualization techniques (3 hrs)



Advanced Python Applications



Advanced Processing

Complex data transformations and optimization techniques



Machine Learning Intro

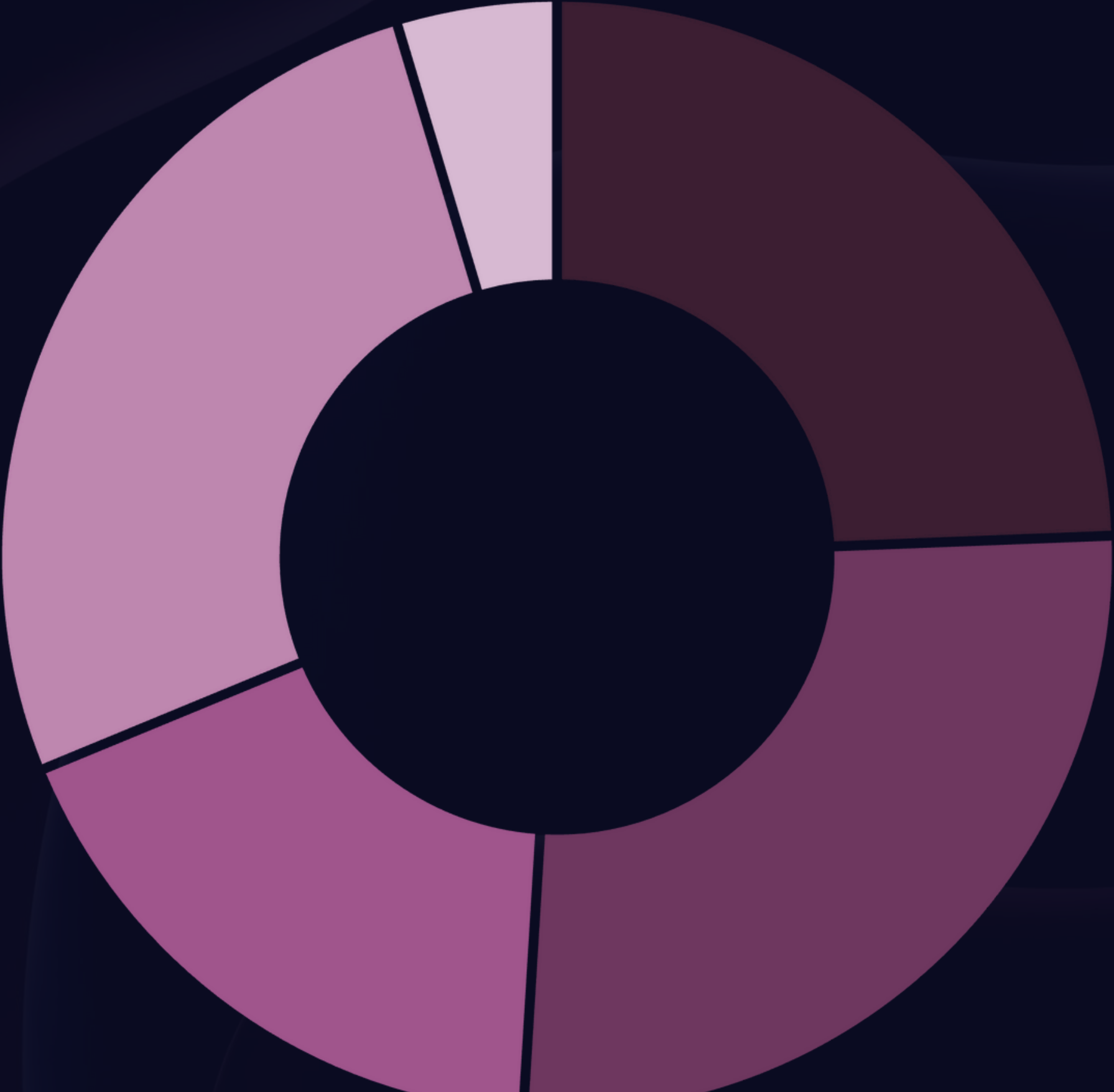
Introduction to ML concepts and basic algorithms



Capstone Project

Real-world application of all learned skills

Time Investment Breakdown



Ready to Transform Data into Insights?

Join this comprehensive data analysis program and master the tools that drive modern business decisions. From Excel automation to machine learning basics, you'll gain the skills employers demand.

What You'll Achieve

- Professional-grade Excel skills
- Interactive dashboard creation
- Database query expertise
- Python programming proficiency

Career Impact

Graduates will be equipped for roles in business analysis, data science, and business intelligence across industries.

