PEA
PETROLEUM ENGINEERS ASSOCIATION

5 DAYS PRACTICAL ONLINE TRAINING ON

DATA ANALYSIS & VISUALIZATION FOR OIL & GAS USING

python™ | Microsoft® SQL Server® | Power BI | +ableau

MR. NASHAT JUMAAH

11+ YEARS EXPERIENCE IN OIL AND GAS INDUSTRY

SCAN TO JOIN PEA COMMUNITY

REGISTRATION OPEN!

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+91 6205464268/
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ABOUT THIS TRAINING

Our intensive training for oil and gas professionals covers data visualization, analytics, and reporting to help you gain insights from complex datasets.

Learn how to create dynamic dashboards and connect to SQL Databases and perform trend analysis, and optimize operations using Power BI's powerful features.

Enhance your decision-making skills and drive better outcomes in the oil and gas industry with our hands-on training.

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SKILLS GAINED

- Get started with Analytics from zero to here.
- Learn Basics of Trend analysis.
- Data Manipulation and Filtering.
- Understand basics of python.
- Work with multi data source projects
- Create Engaging Visualizations.
- Understand SQL databases and Various DML Commands.

AUDIENCE

- Reservoir Engineers.
- Production engineers.
- Chemical engineers.
- Drilling engineers.
- Geologists and petrophysics
- AL and workover engineers.
- Undergraduate students.

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PREREQUISITES

- No knowledge is required.
- A working laptop with Windows OS.

WHAT YOU WILL GET FROM JOINING

- Access to Video Recordings on daily basis.
- Study materials ppt, pdf
- Oil and Gas Datasets.
- Power BI, Anaconda Python, MS SQL Management Package, Tableau

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MODULE 1: INTRODUCTION TO PYTHON

- Introduction to python ecosystem
- Why Python an no other languages for Oil and Gas.
- Industry wide projects done with python (from one Petro).
- Introduction to data types
- Introduction to arrays and lists
- Introduction to loops and if conditions
- Introduction to Pandas and Data frames
- Introduction to Data Visualization
- Introduction To Stream lit Data Apps

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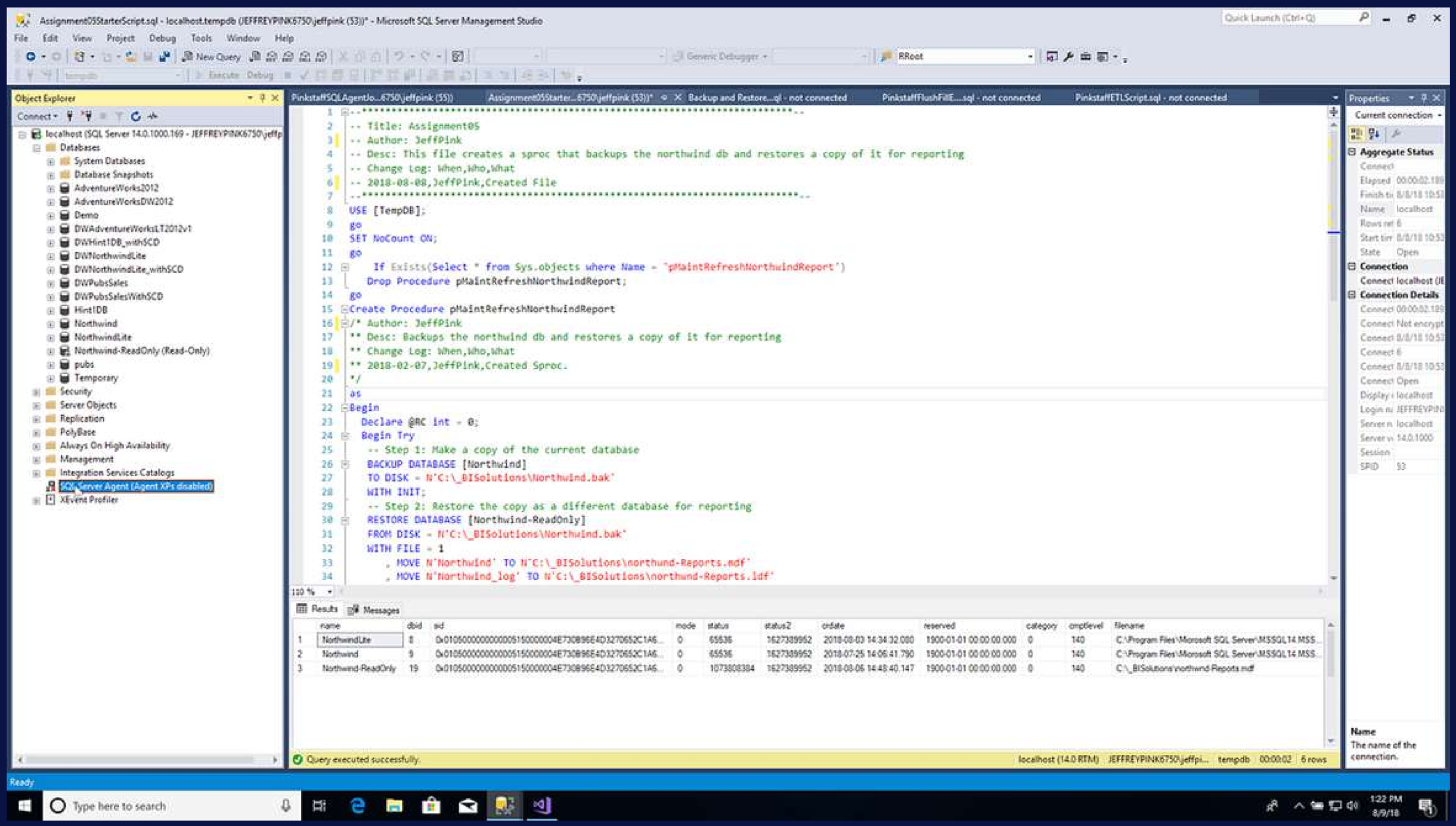
MODULE 2: INTRODUCTION TO DATABASES

- Introduction to Data containers
- Introduction to various DB technologies
- Basics of Data structures and un structured data
- Introduction to CRUD Operations
- Retrieving data from databases
- Python connection with Databases.
- Introduction to database schemas and design aspects



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MODULE 3: INTRODUCTION TO BUSINESS ANALYTICS (POWER BI)

- Introduction to Power BI
- Power BI working Environments.
- Introduction to Basics of Power BI
- Basics of Data Loading and Data View
- Simple Plotting in Power BI
- Basics of Data Modeling Theory
- Relationships between oil and gas data
- Working With Multisource data.
- Data Manipulation and Transformation.
- Advanced Data Loading.
- Data View and Calculated Columns

```python
import math
import numpy as np
import matplotlib.pyplot as plt
import pyswarms as ps
# radial darcy flow
def darcy_radial(pwf):
    q = 4000 #stb
    meu = 10 #cp
    fvf_oil = 1.02 #frac
    k = 40 #md
    h = 100 #ft
    re = 500 # ft , Usually uncertain
    rw = 0.35 # ft
    pres = 5000
    dar_term = 141.2 * q * meu * fvf_oil/(2* 3.14*k * h) * np.log( re/rw )
    cost = pres - pwf[:, 0] - dar_term
    return cost
optimizer = ps.single.GlobalBestPSO(10,1,options=options)
```

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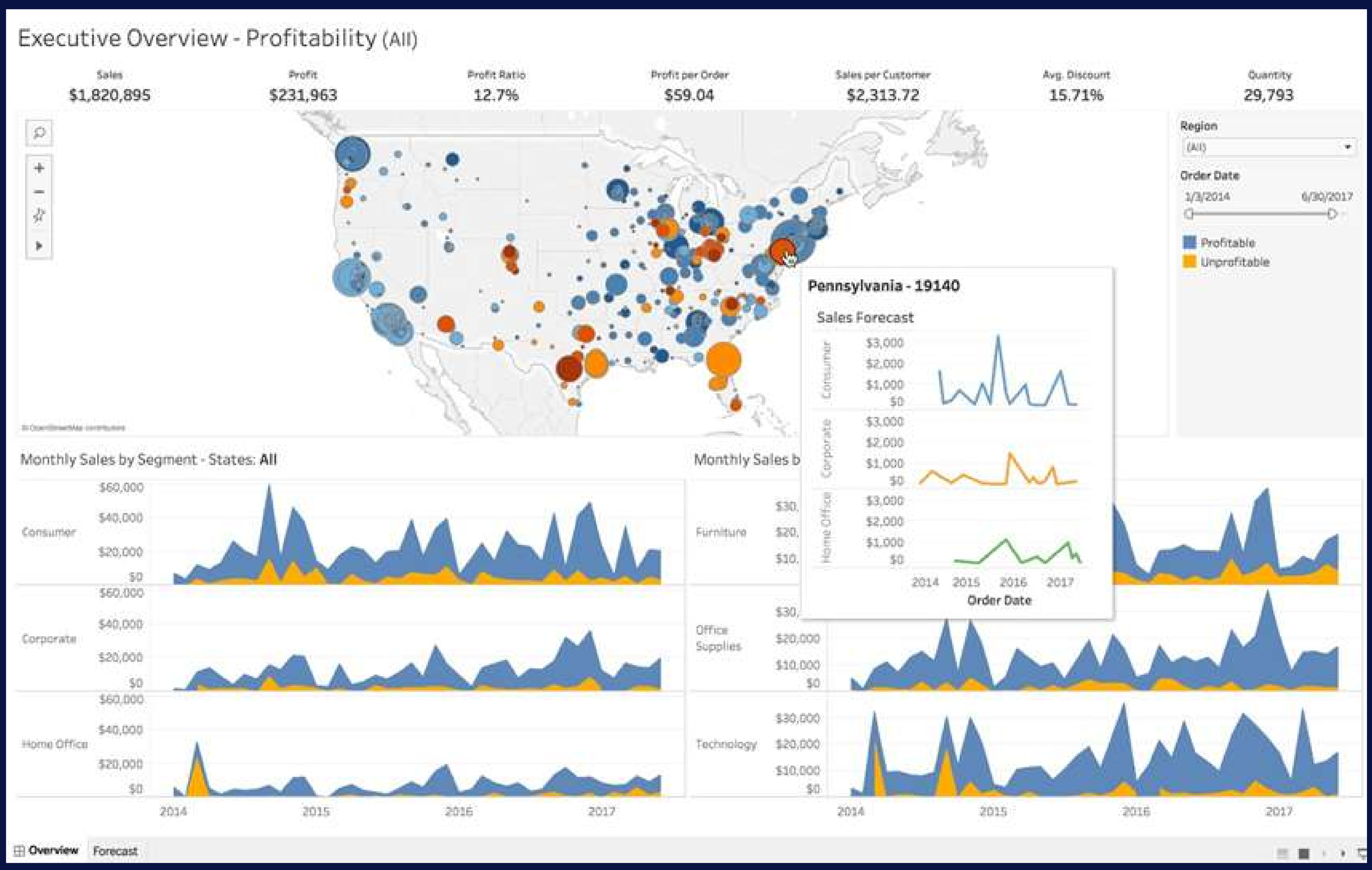
MODULE 4: INTRODUCTION TO TABLEAU VISUALIZATIONS

- Introduction to Tableau
- Tableau Interface and workspace
- Introduction to tableau components (Data Pane, Shelves, etc.)
- Connecting to Data (Excel, CSV, DB)
- Building Interactive Visualizations.
- Introduction to Dashboarding
- Data manipulation and Custom calculation
- Introduction to Surface and Subsurface mapping



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