

Talgd Data Analysis Track Curriculum



Data Analysis essentials

LET US KNOW YOUR FAVORITE TOOLS!



DATA ANALYSIS CURRICULUM



Objective

- The primary objective of Talgd is to tag tech enthusiasts with resources they need to be globally relevant.
- The objective of this track is therefore to train beginners and enthusiasts in Data Analysis and Data analytics Tools and skill sets



Course Outline

- Introduction to Data Analytics
- Data Analysis Processes
- Data Analytics Tools
- Data Interpretation
- Statistics
- Data Visualization
- Dashboards
- Interpreting Insights
- Databases
- Report and Storytelling



HandsOn Tools

- Microsoft Excel
- Power BI
- SQL (SQL Server)



Microsoft Excel

- Installation
- Excel Interface (GUI)
- Sorting and Filtering
- Formatting - Tables and Ranges
- Conditional Formatting
- Functions and Formulas
- Conditional Functions
- Text Functions
- Advanced Functions
- Reference Functions (H, V, and XLookup)
- Basic Spreadsheet concepts
- Data Cleaning
- Data Validation
- Statistical Functions
- Statistical Analysis
- Pivot Tables and Pivot Charts
- Dashboards



Power BI

- Installation
- Power Query Editor (Extract-Transform-Load)
- Data Sources
- Data Modeling 1 - Relational Models
- Data Cleaning
- Power BI Interface (Views)
- Dashboard Rules
- Right Visuals - Right Chart Options
- Canva & Chart Settings
- Data Modeling 2 - Dimensional (Joins)-Merging & Appending
- Data Analysis Expressions - DAX
- KPIs
- Advanced Visuals - Maps
- Power BI Dashboards & Reportd
- Case Study Analysis



SQL

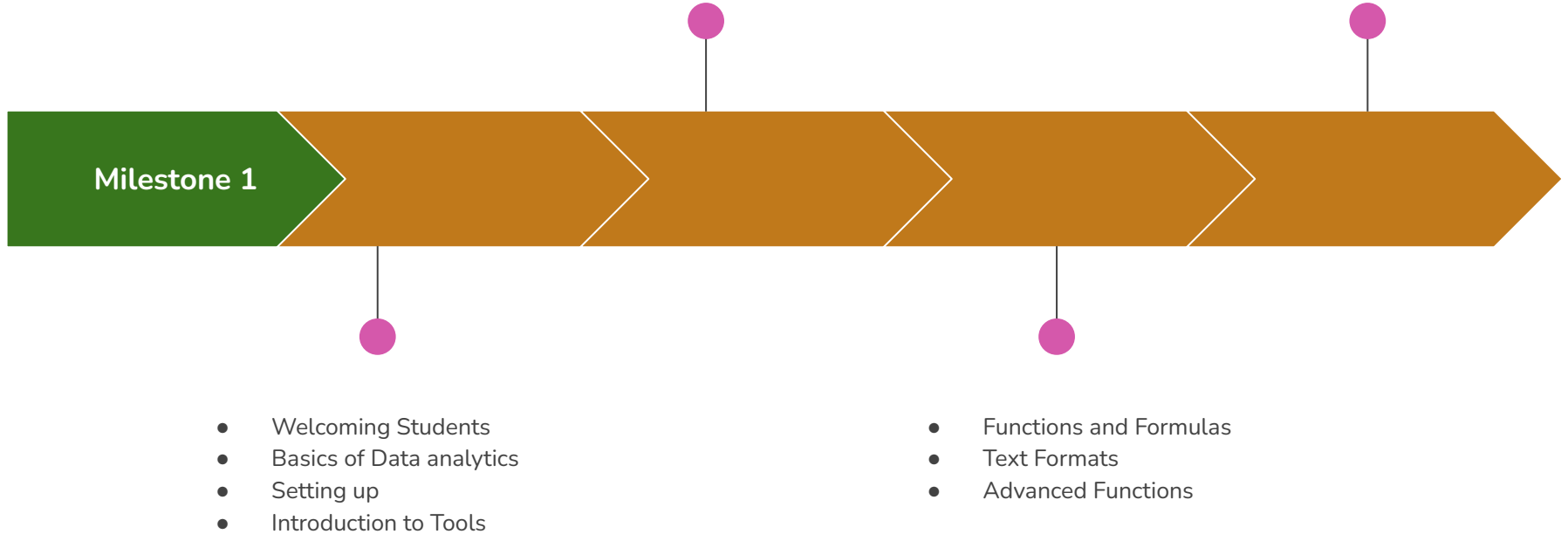
- Microsoft SQL Server Management Studio
- SQL Server 2022

- Setting up an SQL Engine
- Intro to Databases & SQL
- Data Modeling I & II Review
- Schema - Creating Databases and Tables
- CRUD & Query Clauses/Statement
- SELECT Clause
- FROM Clause
- FILTERS - WHERE, HAVING
- WILD CARDS
- AGGREGATE - FUNCTIONS
- GROUP BY
- ORDER BY
- JOINS
- Exporting Tables
- Connecting with Power BI
- Loading Other types of Database files

Data Analysis and Introduction

- Excel GUI
- Sorting and Filtering
- Data Formatting
- Conditional Formatting
- Exercises

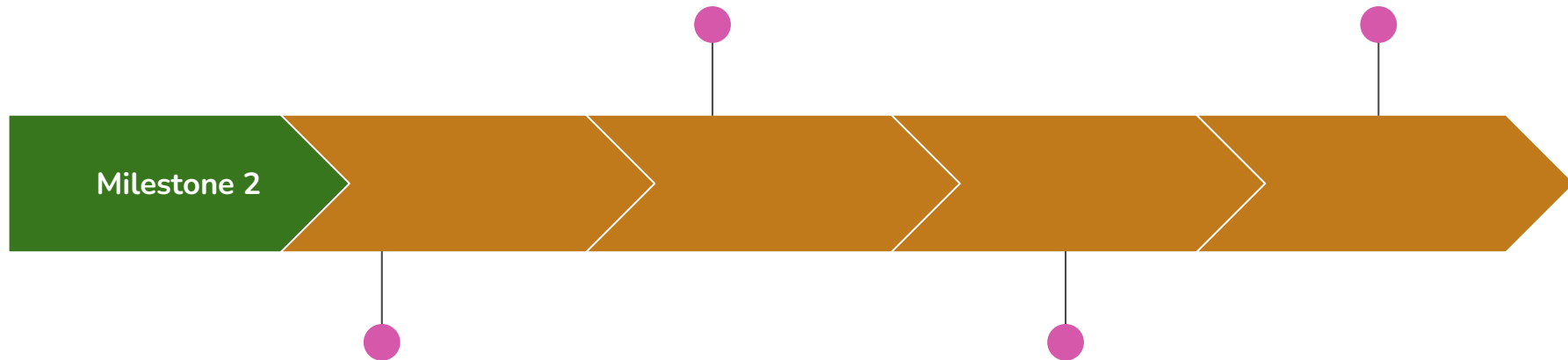
- Reference Functions
- H, V and X Lookups
- Exercises



Excel & Data Visualization

- Data Cleaning
- Data Validation
- Exercises

- Pivot Tables
- Pivot Charts
- Dashboard
- Weekly Excel Project



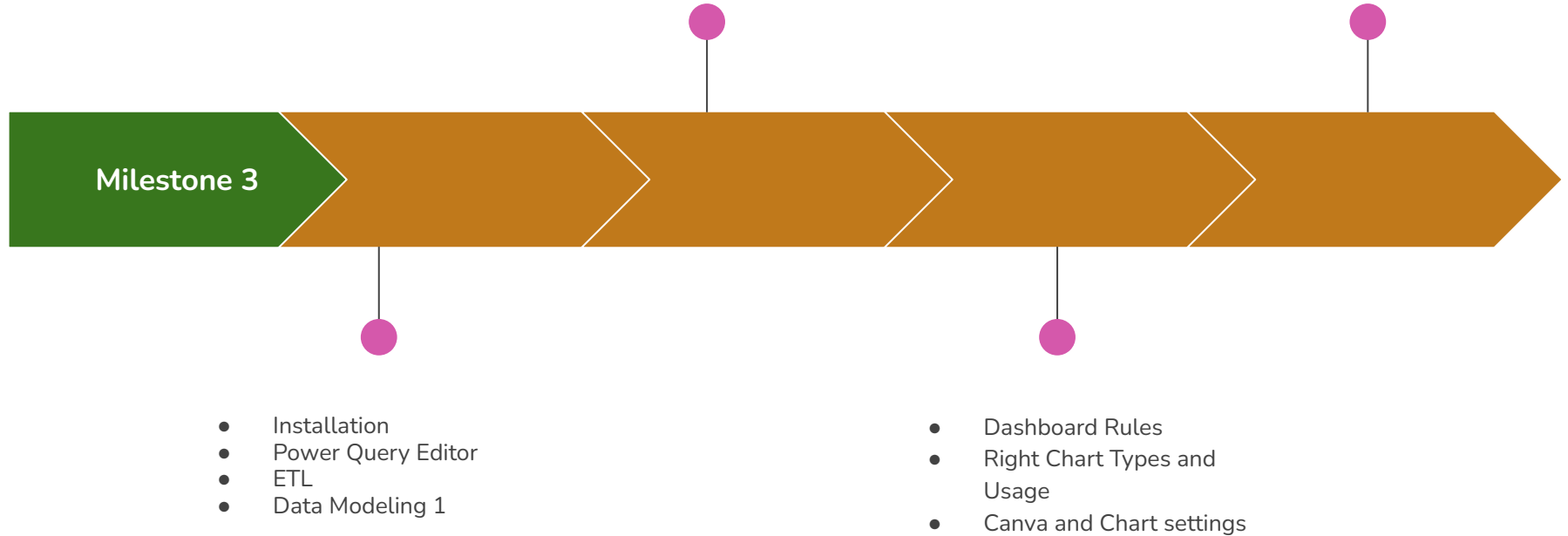
- Basic Spreadsheet Concepts
- Exercises

- Statistical Functions
- Statistical Analysis
- Exercises

Power BI

- Data Cleaning (Power Query Editor)
- Power BI interface - Views

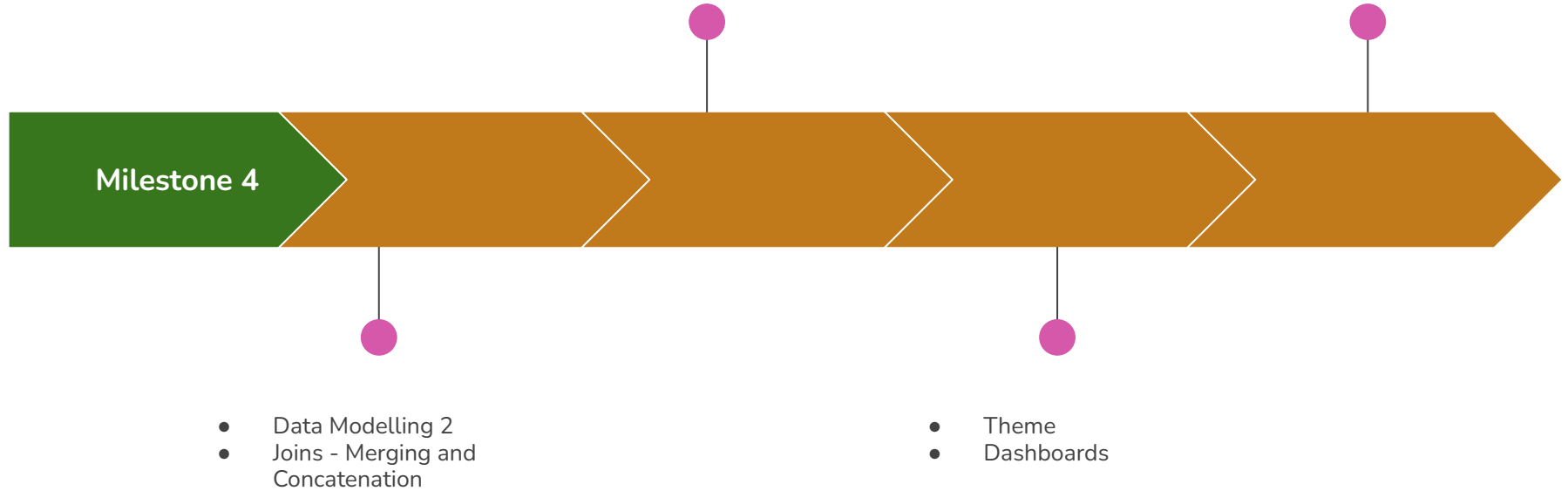
- Data Modelling
- Exercises



Power BI

- DAX - Data Analysis Expression
- KPI
- Advanced Charts

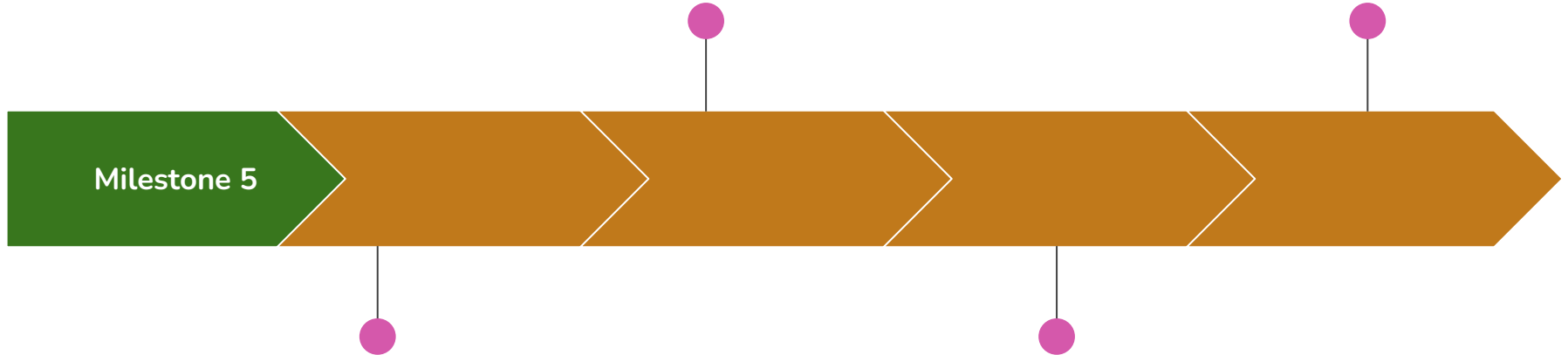
- Reports
- Power BI Projects



DATABASES & SQL

- Data Modelling Review
- Schema - Creating Tables & Database
- CRUD & Query Statement

- AGGREGATE - FUNCTIONS
- GROUP BY
- ORDER BY
- JOINS
- Exercises



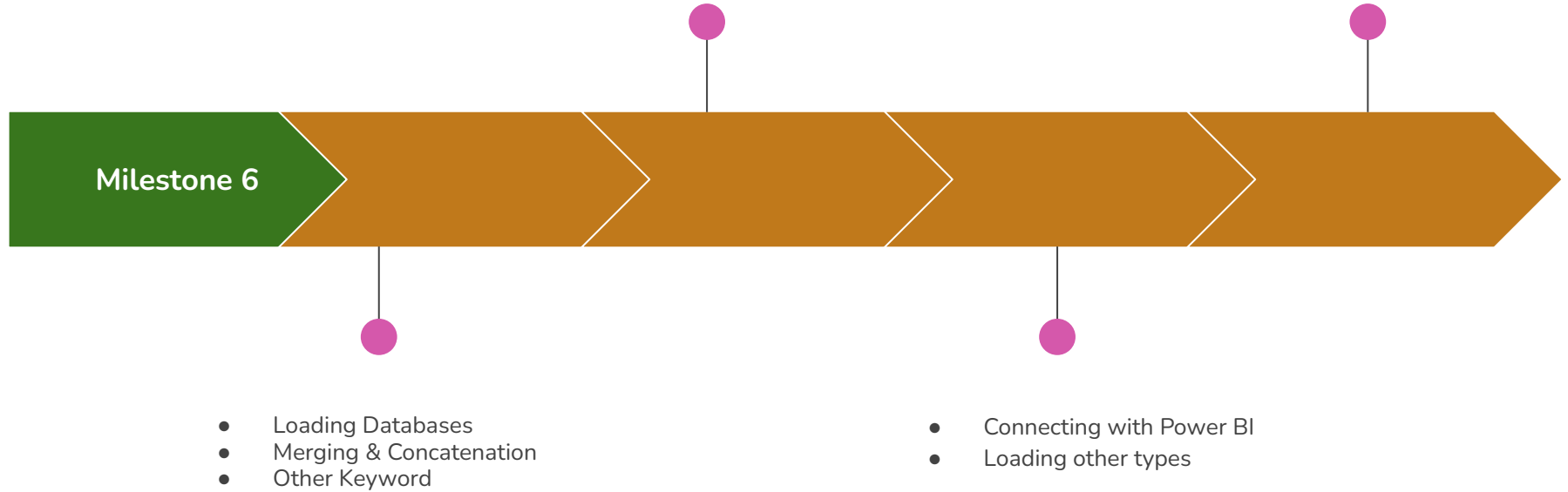
- Setting Up an SQL Workbench/Server/Engine
- SQL IDE
- Intro to Databases

- Clauses
- SELECT, FROM
- FILTERS- WHERE, HAVING
- Wild card Matching

DATABASES & SQL

- Data Cleaning
- Exporting Tables
- Other Databases format

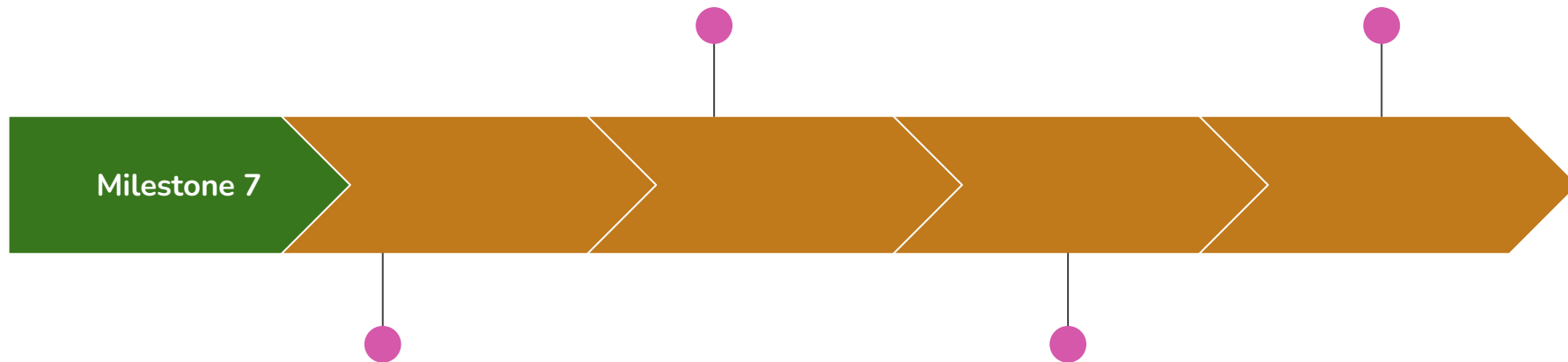
- Quizzes
- Exercises
- Project



CAPSTONE PROJECT WEEK

- Problem Statement, Proposed Solutions
- Project Timeline, etc

Project Submission



- Crash Course and Revision
- Team Project
- Debate
- Data storytelling

- Project Review
- Adventure Works
- Load Database from SQL, Visualize in Power BI
- at least 3 dashboards



End of Cohort

PROJECTS - EXCEL

PROJECTS - POWER BI

PROJECTS - SQL



You have made it thus far. Well done,

We are glad you joined us...

**With love,
Everyone at Talgd**