

Curriculum

Data Analytics

Certificate

Program



DACH
Dalilna Chools

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 1 TO 5

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 1	Business Statistics – Module 1	<ul style="list-style-type: none"> Data analytics overview - Importance of data analytics - Types of data analytics - Benefits of data analytics 	Concepts	Y		Case Study I : DMBOK Framework
Day 2	Business Statistics – Module 2	<ul style="list-style-type: none"> Estimation & hypothesis testing Scatter diagram Anova & Chi- Square 	Concepts	Y		
Day 3	Business Statistics – Module 3	Imputation techniques, data cleaning, correlation & regression	Concepts	Y		
Day 4	Data Analytics – Module 1	Counting, probability & probability distribution, sampling distributions	Concepts	Y		
Day 5	Data Analytics – Module 2	<ul style="list-style-type: none"> Deep dives into descriptive Diagnostic, predictive, prescriptive analytics 	Concepts	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 6 TO 10

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 6	Data Analytics – Module 3	<ul style="list-style-type: none"> Data visualization for decision making - Data types Measure of central tendencies 	Concepts	Y		Case Study – Exploring Business Statistics in Decision Making
Day 7	Data Analytics – Module 4	<ul style="list-style-type: none"> Measures of dispersion - Graphical techniques - Skewness & kurtosis - Box Plots & advance graphs, descriptive stats 	Concepts	Y		
Day 8	Data Analytics – Module 5	<ul style="list-style-type: none"> Sampling funnel Sampling variation 	Concepts	Y		
Day 9	Data Analytics – Module 5	Central Limit theorem & confidence interval	Concepts	Y		
Day 10	Excel - Module I	<ul style="list-style-type: none"> Conditional formatting, exploring styles & clearing formatting, using conditional formatting to hide cells Using the "IF" function - Changing the "Value if FALSE" condition to TEXTb 	Excel	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 11 TO 15

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 11	Excel – Module 2	<ul style="list-style-type: none"> Pivot tables, creating a PIVOT table PIVOT table data, changing a PIVOT tables calculation Filtering & sorting a PIVOT table Creating a PIVOT chart, grouping Items 	Excel	Y		Case Study 3 : Understanding Excel & Generative AI + CHATGPT
Day 12	Excel - Module 3	<ul style="list-style-type: none"> Updating a PIVOT table, formatting a PIVOT table Using slicers in CHARTS Creating a simple Chart Understanding GRAPHICAL tools in advance Excel, charting a non-adjacent cells. 	Excel	Y		
Day 13	Excel - Module 4	Creating a chart using the Chart Wizard - modifying charts, moving an embedded chart, sizing an embedded chart, changing the chart type, chart types	Excel	Y		
Day 14	Excel - Module 5	Changing the way is displayed, moving the legend, formatting charts, adding chart Items, formatting all text, formatting and aligning Numbers	Excel	Y		
Day 15	Excel - Module 6	Formatting the plot Area, formatting data markers, PIE Charts, creating a PIE Chart, moving the Pie Chart to its own sheet	Excel	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 16 TO 20

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 16	Excel - Module 7	Adding data labels, exploding a slice of a PIE chart, data analysis, overview data analysis process, working with range names	Excel	Y	Capstone Project 1 – Advanced Excel – Business Analytics	
Day 17	Excel - Module 8	Copying name using formula autocomplete, range name syntax rules, creating range names, creating names for constants, managing names, scope of name, editing names	Excel	Y		
Day 18	Excel - Module 9	<ul style="list-style-type: none"> Applying names, using names in a formula, viewing names in a workbook Copying formulas with names, difference between tables and ranges. 	Excel	Y		
Day 19	Excel - Module 10	<ul style="list-style-type: none"> Create table - table name, managing names in a table, table headers replacing column letters Propagation of a formula in a table, resize table, remove duplicates 	Excel	Y		
Day 20	Excel - Module 11	<ul style="list-style-type: none"> Convert to range, table style options, table styles Cleaning data with TEXT functions, removing unwanted characters from TEXT 	Excel	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM- DAY 21 TO 25

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 21	Excel - Module 12	<ul style="list-style-type: none"> Extracting data values from text, formatting data with text functions, data formats Conditional formatting, sorting, filtering, LOOKUP functions, pivoting 	Excel	Y		
Day 22	Excel - Module 13	Introduction to the concept of MACROS - recorded MACROS with absolute reference & relative reference	Excel	Y		
Day 23	SQL - DATABASE & DATA MGMT	<ul style="list-style-type: none"> Introduction to SQL database Retrieve data using the SQL select statement Restrict & SORT data Usage of single, row functions to customize output 	SQL	Y		
Day 24	SQL - DATABASE & DATA MGMT	Data warehousing in SQL analytics	SQL	Y		
Day 25	SQL - Module I	<ul style="list-style-type: none"> Definitions, examples & uses, DDL, DQL, DML, DCL & TCL commands Use of DDL statements to create and manage tables, DDL & DML commands, DQL select queries. 	SQL	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM- DAY 26 TO 30

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 26	SQL - Module 2	<ul style="list-style-type: none"> Use subqueries to solve queries Joining tables and transaction control SQL vs NOSQL differentiation 	SQL	Y		
Day 27	SQL - Module 3	<ul style="list-style-type: none"> Invoke conversion functions and conditional expressions Aggregate data using the group functions, display data from multiple tables using JOINS 	SQL	Y		
Day 28	SQL - Module 4	<ul style="list-style-type: none"> Other SCHEMA objects, control user access Management of SCHEMA objects, manage objects with data dictionary views 	SQL	Y		
Day 29	SQL - Module 5	Retrieve data using sub queries, regular expression support, DDL, DML, DQL, DCL, TCL, data types (int, float, char, varchar, date, date & time, UTC)	SQL	Y		
Day 30	SQL - Module 6	<ul style="list-style-type: none"> Manipulate large data sets, data management in different time zones, database constraints, domain, key Referential integrity constraints, primary key, foreign key 	SQL	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 31 TO 35

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 31	SQL - Module 7	Index, B. Tree, hash index, unique index, advantage of index, creation of sequence on primary key column	SQL	Y	Capstone Project 4 – Data Visualization Using PowerBi	Case Study 4 – Developing Business Reporting /Scorecards
Day 32	SQL - Module 8	<ul style="list-style-type: none"> Stored, procedure, conditional statements (if, elseif, else), loops (simple loops, repeat- until, while do) Exception handling - handling cursor & advantage of stored procedure 	SQL	Y		
Day 33	SQL - Module 9	<ul style="list-style-type: none"> User defined functions & triggers Row level, group level, types of triggers vs stored procedures 	SQL	Y		
Day 34	SQL - Module 10	Integration of SQL with PowerBi, sub queries introduction	SQL	Y		
Day 35	Tableau - Module I	<ul style="list-style-type: none"> Start page, show me, connecting to excel files Connecting to text files, connect to Microsoft SQL server, licensing, installation 	Tableau	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 36 TO 40

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 36	Tableau - Module 1	<ul style="list-style-type: none"> Connecting to Microsoft analysis services Creating and removing hierarchies, bins, joining tables, data blending 	Tableau	Y	Capstone Project 4 – Data Visualization Using PowerBi	Case Study 4 – Developing Business Reporting /Scorecards
Day 37	Tableau - Module 1	Type of data (structure, unstructured, semi structured), visualization properties, visualization tools	Tableau	Y		
Day 38	Tableau - Module 2	Parameters, grouping example 1 & 2, edit groups, set, combined sets, creating a first report	Tableau	Y		
Day 39	Tableau - Module 2	<ul style="list-style-type: none"> Data labels, create folders, sorting DATA, add totals, subtotals, grand totals to report DATA pane Measures & dimensions, data source window operations 	Tableau	Y		
Day 40	Tableau - Module 3	<ul style="list-style-type: none"> Tableau charts, area chart, bar chart, box plot, bubble chart, bump chart, bullet graph, circle views Dual combination charts, dual lines chart, funnel chart 	Tableau	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 41 TO 45

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 41	Tableau - Module 3	<ul style="list-style-type: none"> Traditional funnel charts, Gantt chart, grouped bar, side by side bars, chart heatmap, highlight table. histogram Cumulative histogram, line chart, lolli pop charts, pareto chart 	Tableau	Y	Capstone Project 3 – Business Dashboards Using Tableau	Case Study 3 – Developing Storyboards
Day 42	Tableau - Module 3	<ul style="list-style-type: none"> Pie chart, scatter plot, stacked bar chart, text label, tree map, word cloud waterfall chart Multi vari chart, time series charts, advance charts 	Tableau	Y		
Day 43	Tableau - Module 4	<ul style="list-style-type: none"> Advance reports, dual axis reports, blended axis, individual axis, add reference lines, reference bands, reference distributions, basic maps, symbol map Use google maps, map box maps, WMS server map, background map 	Tableau	Y		
Day 44	Tableau - Module 5	Calculations & filters, calculated fields, basic & advance approach, TO calculate rank, calculating running total, filters introduction, quick filters, filets on dimensions, conditional filters, top & bottom filters, filters on measures, context filters, slicing filters, data source filters, extract filters	Tableau	Y		
Day 45	Tableau - Module 6	Dashboards: create, format, create a device preview of a dashboard, create filters on dashboard, dashboard objects, create a story	Tableau	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 46 TO 50

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 46	Tableau - Module 7	Tableau server: Tableau online, overview of Tableau server, publishing Tableau objects and scheduling / subscriptions	Tableau	Y	Capstone Project 4 – Data Visualization Using PowerBi	Case Study 4 – Developing Business Reporting /Scorecards
Day 47	Power BI - Module 1	Get started with PowerBi, PowerBi concepts, Installation, Connect to a SAAS solution as Microsoft PowerBI and PowerBI Pro, connect to Excel data, upload to local CSV file	PowerBI	Y		
Day 48	Power BI - Module 1	Connect to a sample, create a report with visualizations, explore PowerBI portal	PowerBI	Y		
Day 49	Power BI - Module 2	<ul style="list-style-type: none"> Viz & tiles: visualization overview, using visualization Creating new report, create and arrange visualizations, format visualization 	PowerBI	Y		
Day 50	Power BI - Module 2	Create chart visualizations, use text, use map, gauge visualizations and save a report, use a slicer to filter visualizations, sort, copy and paste visualizations, download & use custom visual from the gallery	PowerBI	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 51 TO 55

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 51	Power BI - Module 3	Reports & dashboards: modify & print a report, rename and delete report pages, add a filter to a page or report, set visualization interactions, print a report page, send a report to POWERPOINT, create a dashboard, create & manage dashboards, pin a report tile to a dashboards	PowerBI	Y	Capstone Project 4 – Data Visualization Using PowerBi	Case Study 4 – Developing Business Reporting /Scorecards
Day 52	Power BI - Module 3	Pin a live report page to a dashboard, pin a tile from another dashboard, pin an excel element to a dashboard, manage pinned elements in Excel, add a tile to a dashboard, build a dashboard with quick insights, set a featured (default) dashboard, ask questions about your data, ask a question with PowerBI Q&A, tweak your dataset for Q & A, enable CORTANA for PowerBI	PowerBI	Y		
Day 53	Power BI - Module 4	Publishing workbooks & workspace: share data with colleagues & others, publish a report to the web, manage published reports, share a dashboard, create an app workspace and add users	PowerBI	Y		
Day 54	Power BI - Module 4	Use an app workspace, publish an app create a QR code to share a tile, embed a report in SHAREPOINT online	PowerBI	Y		
Day 55	Power BI - Module 5	PowerBi components & table relationship: use PowerBI mobile apps, get PowerBI for mobile, view reports & dashboard in the IPAD app, use workspaces in the mobile app, sharing from PowerBI mobile - use PowerBI desktop, install & launch PowerBI desktop	PowerBI	Y		

TRAINING MODULES- DATA ANALYTICS PROGRAM – DAY 56 TO 61

Days	Main Topics	Subtopics	Tools – Software's or Templates	Assignment (Y/N)	Capstone Project (Y/N)	Research / Case Studies
Day 56	Power BI - Module 5	<ul style="list-style-type: none"> Get data, reduce data, transform data, relates tables, get PowerBI desktop data with the PowerBI service Export a report from PowerBI service to desktop 	PowerBI	Y		
Day 57	Power BI - Module 6	DAX functions: new dax, date & time, time intelligence, filter, information, logical, math & trig, parent & child, text functions	PowerBI	Y		
Day 58	Power BI - Module 6	PowerBI server, PowerBI SAAS, SAAS integration with SQL server, finalizing a dashboard, creating A story	PowerBI	Y		
Day 59	Analytics in Industries	Guest speakers, rendezvous with CEOS of top FMCG companies in Saudi Arabia	-	-		
Day 60	Final Assessment	Final Assessments - Online - 3 hours - Pass mark Based on Group Grading Vs Market Benchmarking.	-	-		
Day 61	Capstone Project Discussion	Project Discussion	-	-		

Thank You

Sathish Narayanan – Chief Growth Officer – DACH Group

Sathish@dachksa.com

Mobile : +966559087967

Global Whatsapp : +917406733363

www.dachksa.com

Office No. 36, Orchid Center,
Al-Thumama Road, Riyadh, KSA



DACH
Dalilna Chools