

FOUNDATION AI COURSE(30 Days)

Sl. No	Content / Topic
1	Artificial Intelligence Exploring the Future
	Video Lesson
	Notes Lesson
	Quiz Lesson
2	Introduction to AI: Definition and Origins
	Video Lesson
	Notes Lesson
	Quiz Lesson
3	The Rise of AI in India: A Journey of Innovation
	Video Lesson
	Notes Lesson
	Quiz Lesson
4	Subset of Artificial Intelligence (AI)
	Video Lesson
	Notes Lesson
	Quiz Lesson
5	The Role of Data in Artificial Intelligence
	Video Lesson
	Notes Lesson
	Quiz Lesson
6	Data Cleaning Preprocessing and Visualization
	Video Lesson
	Notes Lesson
	Quiz Lesson
7	The AI Pipeline: From Data to Deployment
	Video Lesson
	Notes Lesson
	Quiz Lesson
8	The AI Pipeline: From Data to Deployment (Part-2)
	Video Lesson
	Notes Lesson
	Quiz Lesson
9	The Future of AI: Exploring Generative AI and Responsible AI
	Video Lesson
	Notes Lesson
	Quiz Lesson
10	Applications of AI: A Transformative Journey
	Video Lesson
	Notes Lesson
	Quiz Lesson
11	Careers in AI: A World of Possibilities
	Video Lesson
	Notes Lesson
	Quiz Lesson
12	Fun Facts and Trivia About AI
	Video Lesson
	Notes Lesson

	Quiz Lesson
13	Leading Companies in AI
	Video Lesson
	Notes Lesson
	Quiz Lesson
14	Pioneers and Innovators of AI
	Video Lesson
	Notes Lesson
	Quiz Lesson
15	How to Verify AI Information
	Video Lesson
	Notes Lesson
	Quiz Lesson
16	Introduction to Machine Learning
	Video Lesson
	Notes Lesson
	Quiz Lesson
17	Unlocking Your Potential with AI: A Student's Guide
	Video Lesson
	Notes Lesson
	Quiz Lesson
GENERAL AI TOOLS	
Sl. No	Content / Topic
1	Grammarly AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
2	Book Bot AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
3	EssayDone AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
4	Kickresume AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
5	ChatGPT
	Video Lesson
	Notes Lesson
	Quiz Lesson
6	QuestionWell AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
7	Teachable Machine
	Video Lesson
	Notes Lesson
	Quiz Lesson

Applied Artificial Intelligence with 50+ Tools (80 Days)

Sl. No	Content / Topic
1	Types of ML: Supervised, Unsupervised, Reinforcement Learning
	Video Lesson
	Notes Lesson
	Quiz Lesson
2	Regression: Linear Regression, Logistic Regression
	Video Lesson
	Notes Lesson
	Quiz Lesson
3	Classification: K-Nearest Neighbors, Decision Trees
	Video Lesson
	Notes Lesson
	Quiz Lesson
4	Clustering: K-Means, Hierarchical Clustering
	Video Lesson
	Notes Lesson
	Quiz Lesson
5	Model Evaluation: Accuracy, Precision, Recall, F1 Score
	Video Lesson
	Notes Lesson
	Quiz Lesson
6	Train-Test Split & Cross Validation
	Video Lesson
	Notes Lesson
	Quiz Lesson
7	Overfitting vs Underfitting
	Video Lesson
	Notes Lesson
	Quiz Lesson
8	Bias-Variance Tradeoff
	Video Lesson
	Notes Lesson
	Quiz Lesson
9	Feature Scaling: Normalization, Standardization
	Video Lesson
	Notes Lesson
	Quiz Lesson
10	Dimensionality Reduction: PCA
	Video Lesson

	Notes Lesson
	Quiz Lesson
11	What is a Neural Network
	Video Lesson
	Notes Lesson
	Quiz Lesson
12	Perceptron and Multilayer Perceptron
	Video Lesson
	Notes Lesson
	Quiz Lesson
13	Activation Functionalities: ReLU, Sigmoid, Tanh
	Video Lesson
	Notes Lesson
	Quiz Lesson
14	Loss Functions: MSE, Cross-Entropy
	Video Lesson
	Notes Lesson
	Quiz Lesson
15	Forward and Backend Propagation
	Video Lesson
	Notes Lesson
	Quiz Lesson
16	Gradient Descent & Variants (SGD, Adam)
	Video Lesson
	Notes Lesson
	Quiz Lesson
17	Epochs, Batches, Learning Rate
	Video Lesson
	Notes Lesson
	Quiz Lesson
18	Overfitting in DL & Dropout
	Video Lesson
	Notes Lesson
	Quiz Lesson
19	Introduction to CNNs (used in CV)
	Video Lesson
	Notes Lesson
	Quiz Lesson
20	Introduction to RNNs (used in NLP)
	Video Lesson
	Notes Lesson
	Quiz Lesson
21	What is NLP?
	Video Lesson

	Notes Lesson
	Quiz Lesson
22	Text Preprocessing: Tokenization, Stop Words, Lemmatization
	Video Lesson
	Notes Lesson
	Quiz Lesson
23	Bag of Words Model
	Video Lesson
	Notes Lesson
	Quiz Lesson
24	TF-IDF
	Video Lesson
	Notes Lesson
	Quiz Lesson
25	Word Embeddings: Word2Vec, GloVe
	Video Lesson
	Notes Lesson
	Quiz Lesson
26	Basic Language Models: N-grams
	Video Lesson
	Notes Lesson
	Quiz Lesson
27	Sentiment Analysis
	Video Lesson
	Notes Lesson
	Quiz Lesson
28	Named Entity Recognition
	Video Lesson
	Notes Lesson
	Quiz Lesson
29	Part-of-Speech Tagging
	Video Lesson
	Notes Lesson
	Quiz Lesson
30	Text Classification
	Video Lesson
	Notes Lesson
	Quiz Lesson
31	What is Computer Vision
	Video Lesson
	Notes Lesson
	Quiz Lesson
32	Image as a Matrix of Pixels
	Video Lesson

	Notes Lesson
	Quiz Lesson
33	Basic Image Operations: Grayscale, Resize, Flip
	Video Lesson
	Notes Lesson
	Quiz Lesson
34	Edge Detection: Sbel, Canny
	Video Lesson
	Notes Lesson
	Quiz Lesson
35	Convolution Operation & Filters
	Video Lesson
	Notes Lesson
	Quiz Lesson
36	Pooling Layers
	Video Lesson
	Notes Lesson
	Quiz Lesson
37	Image Classification Basics
	Video Lesson
	Notes Lesson
	Quiz Lesson
38	Introduction to CNNs
	Video Lesson
	Notes Lesson
	Quiz Lesson
39	Object Detection vs Clasification
	Video Lesson
	Notes Lesson
	Quiz Lesson
40	Data Augmentation
	Video Lesson
	Notes Lesson
	Quiz Lesson

AI TOOLS

Sl. No	Content / Topic
1	Google Notebook LM AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson

2	AI Tools that can be used in day to day life
	Notebook LM
	Sider.ai
	Gamma.app
	Google Lens
	Drawify
	remove.bg
	Playground.com
	supermeme.ai
	namelix.com
3	Important AI Tools that helps to understand Machine Learning and AI
	Teachable Machine
	Machine Learning for Kids
	Machine Learning Playground
	Scratch
	Experiment with Google
	Pictoblox
	Labs.google
	AI Dungeon
4	Introduction to Otter AI Tool, Magic School, Eduaide AI Tool, Brisk Teaching, Questionwell, Diffit
	Video Lesson
	Notes Lesson
	Quiz Lesson
5	Presentation AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
6	Textero AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
7	Scratch AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
8	Google AI Studio AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
9	Hot Potato & Answer Garden
	Video Lesson
	Notes Lesson
	Quiz Lesson

10	Magic School AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
11	Adobe Firefly AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
12	Lumen 5 AI Tool
	Video Lesson
	Notes Lesson
	Quiz Lesson
13	QuillBot
	Video Lesson
	Notes Lesson
	Quiz Lesson
14	Notion AI
	Video Lesson
	Notes Lesson
	Quiz Lesson

Microsoft PowerBI Tool (90 days)

Sl. No	Content / Topic
1	An introduction to Data Visualization
	Introduction to data and data Visualization
	Evolution and Importance of in Data Visualization
2	Introduction to Power BI
	Best Practices in Data Visualization
	Story Telling in Data Visualization
3	Connect and prepare data using Power BI
	Introduction to Power BI and Power Query, Power BI Embedded
	Power BI Desktop, Power BI Service analytics
	Project- Loan Application Analysis
4	Data Transformation in the Power Query
	Getting Started with Power BI Introduction to GUI of Power BI Desktop
	Types of Data Connectors in Power BI
	Introduction to the Power Query Editor
	Introduction to GUI of Power Query
	Data transformations and prepration exercises - 1
	Data transformations and prepration exercises - 2
	Data transformations and prepration exercises - 3
	Data transformations and prepration exercises - 4
	Data transformations and prepration exercises - 5
	Data transformations and prepration exercises - 6
	Data transformations and prepration exercises - 7
	Data transformations and prepration exercises - 8
	Data transformations and prepration exercises - 9
	Data transformations and prepration exercises - 10
	Merging and Appending Operations
	Unpivot and Unpivot Operations
	Project- Healthcare Sales Analysis
5	Data Model Relationships in Power BI
	Introduction to Joins and Cardinality of Relationships
	Managing Relationships among data tables
	Project- Customer Churn Analysis
6	Creating Report in Power BI Desktop
	Introduction to Report View and templates
	Building reports using visuals
	Report Formatting
	Project- Product Sales Data Analysis
7	Creating Interactive Reports in Power BI Desktop
	Create Interactive reports

8	Creating Dashboard
9	Colloboration and Sharing dashboard
10	Data Analysis Expressions
	Introduction to DAX, Columns and Mesures, Implicit and Explicit Measure
	DAX Queries
	Project- Marketing Campaign Insights Analysis
	Project- Financial Perfomance Analysis
11	Case study
	Case Study 1- Sales and Distribution
	Case study 2-Data Loading, Transformation, Modeling and KPI setup
	Case Study 3- Creating KPI Cards, Formating and DAX-Based Measures in Power BI
	Case study 4- KPI Creation, Formatting, Quick Measures and Filtering
	Case Study 5- Creating Sclicers, Tables and Trend Line Visual in PowerBI
	Case Study 6- Creating Vertical Bar Diagram, Donut Chart and Editing interactions in PowerBI

Tableau (60 days)

Sl.	Content / Topic
1	Tableau Introduction
	Why Tableau
	History of Tableau
	Characteristics of Tableau
	Tableau versions
	Versions of tableau.
	Tableau Architecture and components
2	Tableau Components
	What is Tableau Desktop, Server
	What is Tableau Reader
	What is Tableau Online
	What is Tableau Public?
3	Tableau Extensions
	Types of Extensions
	When to use Tableau Extensions
	Differences between .Twb and .Twbx extensions
4	Data Connection in Tableau Interface
	Types of Data Connections in Tableau
	Connect to Live Data connection
	Connect to ExtractData connection in Tableau
	Creation of Extract file in Tableau
5	Data Joins in Tableau
	What is Joins
	Types of Joins
	When to use Joining Rules to performthe Joins in tableau.
	What is Custom SQL?
	Custom SQL Enabled Custom SQL
	Writing
	Data Refresh
6	Data Blending in Tableau
	What is Data Blending
	Types of Data Blending
	When to use Data Blending
	Rules to performthe Joins in tableau
	Join vs. Data Blending
7	Graphs/Charts/Bars
	Line Graphs
	Single Line graphs
	Dual Line Graphs
	Blended Axis
	Difference between Dual axis and Blended axis

	Horizontal Bar Charts
	Vertical Bar charts
	Side-Side by bar charts
	Stacked Bar charts
	Pie Charts
	Gantt Charts
8	Maps
	What is Tree Maps
	Heat Maps
	Tree map implementation
	Filed Maps
	What is Geo-Coding and implementation
	Importing External CustomGeo coding
	Symbol Maps
9	Hierarchy in Tableau
	What is a Hierarchy?
	Relation between Drill downs, Roll ups and Hierarchies.
	What are Automatic Hierarchies?
	How to create Custom Hierarchy in Tableau?
	Removing Hierarchy
10	Aggregation and Disaggregation
	What is Aggregation
	When to use Aggregation
	What is Disaggregation
	When to use Disaggregation.
11	Filters and Types
	What is Filters
	Filters on Dimensions
	What is Wild Card
	Filters on Measures
	Context Filters
	Global Filters
	Quick Filters
	Defining Filters at Source
	Defining Filters at Custom SQ
12	Groups and Sets
	What is Group
	When to use Group
	Editing Existing Group
	Limitation of groups
	What is Set
	When to Use Sets
	Types of Set
13	Calculated Fields
	What is Tableau Calculation
	When to use INDEX (),RANK(),LAST(),FIRST() Functions

	RUNNING_SUM Calculations
	WINDOW_SUM Calculations
	String Calculations
	Boolean Calculations
	DATE Calculations.
14	Creating and Using Parameters
	What is Parameter
	Creating Parameter
	Exploring Parameter Controls
	Work with the parameter
	Click interaction workingwith parameter
	Parameters and use with real time examples
	Dynamically Show and Hide Sheetswith Parameter
15	Trend Analysis
	What is Trend Analysis
	Logarithmic Model
	Exponential Model
	Linear Model
	Polynomial Mode
16	Fore Casting and Reference Lines
	What is Fore Casting and implementation
	What is Reference Line
	Lines
	Bands
	Distributions
	Box Plot
17	Annotations
	Mark Annotation
	Point Annotation
	Area Annotation
18	Page-shelf or Automated Maps
	What is Page Shelf?
	When to use Page Shelf
	Page Shelf Customized Controls
19	Getting Started with Dashboard Sections
	What is Dashboard, when to use Dashboard and Ways to use Dashboard
	What is work book and When to use Workbook
	What is work sheet and When to use worksheets
	What is stories their usage
	Ways to use Workbook, Dashboard, Worksheet, Stories
20	Dash Board Components
	Horizontal
	Vertical component
	Image Component
	Text Component
	Blank Component

21	Actions in Tableau
	What is Actions& When to use Actions
	Types of Actionsin tableau
	How to Triggerthe Action
22	Tableau Advanced Charts– User defined Charts (IMP)
	Water Fall charts
	Donut charts
	FunnelCharts
	Word cloud
	Lollipops charts
	Whisker plots
	Scatter plo
23	Different Add INS and new feature in Tableau
	Advanced Tableau 10 New Features
	Reporting Migration Processand Check list in Real-Time
24	Tableau Desktop
	Publishing workbook and data source
	Managing and creationof sites
	Migration of workbook in different environment
	Tabadmin commands on server level
	Postgrey SQL to connect the tableau server
	Postgrey SQL to create server levelreport
	Backup and recoveryat tableau server
	Performance recording at server level
25	Getting Started with Tableau Prep
	The Union Step
	The Output Step
	The Tableau Prep Interface
	The Input Step
	The Cleaning Step
	Group and Replace
	The Profile Pane
	The Pivot Step
	The Aggregate Step
	The Join Step