LITZ TECH
India Private Limited

Empowering Business Globally

9001:2008 ISO CERTIFIED

ISO 27001:2005

CERTIFIED ISO 9001:2015 COMPANY

WE DON'T JUST EDUCATE
WE PROVIDE
100%
PLACEMENT ASSISTANCE

REGISTER NOW !

Trainers have 13+ years experience

CONTACT US NOW
9042090708

www.litztech.in

DATA SCIENCE TRAINING

WHY LITZ TECH?

Learn IT Zone is a pioneer in facilitating education using breakthrough technologies. With dedicated teams academic experts, the company has been on the forefront of heralding the next advancement in learning, thus becoming a distinctive player in bridging geographical and cultural borders, we are well connected with the networks of colleges and IT solutions. LITZ TECH INDIA PVT LTD recruits well performing students of Learn IT Zone that provides an effective career.

KEY FEATURES

Train from professionals with industry experience

Learn theoretical concepts and gain hands-on training simultaneously

Real time Hands-On Practical Experience Training to imbibe corporate practices Get certified at the end of the training

Receive placement support once the training is completed

Getting exposure to latest technology up gradations.

Advanced lab facility and most updated syllabus and materials will be provided with learning tools for easy learning

You will have the access to contact the trainers at any time.

Course Syllabus

Data Science with Python

Module 1: Introduction to Data Science

- Selecting rows/observations
- Rounding Number
- Selecting columns/fields

- Merging data
- Data aggregation
- Data munging techniques

Module 2: Introduction to Python

- What is Python?
- Why Python?
- Installing Python
- Python IDEs
- Jupyter Notebook Overview

Module 3: Python Basics

- Python Basic Data types
- Lists
- Slicing
- IF statements
- Loops
- Dictionaries
- Tuples
- Functions
- Array
- Selection by position & Labels

Module 4: Python Packages

- Pandas
- Numpy
- Sci-kit Learn
- Mat-plot library
- atplotlib

Module 5: Importing Data

- Reading CSV files
- Saving in Python data
- Loading Python data objects
- Writing data to CSV file

Module 6: Manipulating Data

- Selecting rows/observations
- Rounding Number
- Selecting columns/fields
- Merging data
- Data aggregation
- Data munging techniques

Module 7: Statistics Basics

- Central Tendency ○ Mean ○ Median ○ Mode ○ Skewness ○ Normal Distribution
- Probability Basics ○ What does it mean by probability?
- ○ Types of Probability ○ ODDS Ratio?
- Standard Deviation ○ Data deviation & distribution ○ Variance
- Bias variance Tradeoff
- ○ Underfitting ○ Overfitting
- Distance metrics ○ Euclidean Distance ○ Manhattan Distance
- Outlier analysis ○ What is an Outlier? ○ Inter Quartile

Range ○ Box & whisker plot ○ Upper Whisker ○ Lower Whisker ○ Scatter plot ○ Cook's Distance

- Missing Value treatment ○ What is NA? ○ Central Imputation ○ KNN imputation ○ Dummification
- Correlation

○ Pearson correlation
○ positive & Negative correlation

Module 8: Error Metrics

- Classification ○ Confusion Matrix ○ Precision ○ Recall ○ Specificity ○ F1 Score
- Regression ○ MSE ○ RMSE
  ○ MAPE

Machine Learning

Module 1: Supervised Learning

Linear Regression:

- Linear Equation
- Slope
- Intercept
- R-squared Value

Logistic Regression:

- ODDS ratio
- Probability of Success
- Probability of Failure

Bias-Variance Tradeoff:

- Bias-Variance Tradeoff
- ROC curve

Module 2: Unsupervised Learning

- K-Means
- K-Means ++
- Hierarchical Clustering

Module 3: SVM

- Support Vectors
- Hyperplanes
- 2-D Case
- Linear Hyperplane

Module 4: SVM Kernal

- Linear
- Radial
- polynomial

Module 5: Other Machine Learning Algorithms

- K – Nearest Neighbour
- Naïve Bayes Classifier
- Decision Tree – CART
- Decision Tree – C50
- Random Forest

Artificial Intelligence

Module 1: AI

Introduction

- Perceptron
- Multi-Layer perceptron
- Markov Decision Process
- Logical Agent & First Order Logic
- AL Applications

Deep Learning

Module 1: Deep Learning Algorithms

- CNN – Convolutional Neural Network

- RNN – Recurrent Neural Network
- ANN – Artificial Neural Network

Module 2: Introduction to NLP

- Text Pre-processing
- Noise Removal
- Lexicon Normalization
- Lemmatization
- Stemming
- Object Standardization

Module 3: Text to Features(Feature Engineering)

- Syntactical Parsing

- Dependency Grammar
- Part of Speech Tagging
- Entity Parsing
- Named Entity Recognition
- Topic Modelling
- N-Grams
- TF – IDF
- Frequency / Density Features
- Word Embedding's

Module 4: Tasks of NLP

- Text Classification
- Text Matching
- Levenshtein Distance
- Phonetic Matching
- Flexible String Matching

Tableau

Module 1: Tableau Course Material

- Start Page
- Show Me
- Connecting to Excel Files
- Connecting to Text Files
- Connect to Microsoft SQL Server
- Connecting to Microsoft Analysis Services
- Creating and Removing Hierarchies
- Bins
- Joining Tables
- Data Blending

Module 2: Learn Tableau Basic Reports

- arameters
- Grouping Example 1
- Grouping Example 2
- Edit Groups
- Set
- Combined Sets
- Creating a First Report
- Data Labels

- Create Folders
- Sorting Data
- Add Totals, Subtotals and Grand Totals to Report

Module 3: Learn Tableau Charts

- Area Chart
- Bar Chart
- Box Plot
- Bubble Chart
- Bump Chart
- Bullet Graph
- Circle Views
- Dual Combination Chart
- Dual Lines Chart
- Funnel Chart
- Traditional Funnel Charts
- Gantt Chart
- Grouped Bar or Side by Side Bars Chart
- Heatmap
- Highlight Table
- Histogram
- Cumulative Histogram
- Line Chart

- Lollipop Chart
- Pareto Chart
- Pie Chart
- Scatter Plot
- Stacked Bar Chart
- Text Label

- Tree Map
- Word Cloud
- Waterfall Chart

Module 4: Learn Tableau Advanced Reports

- Dual Axis Reports
- Blended Axis
- Individual Axis
- Add Reference Lines
- Reference Bands
- Reference Distributions
- Basic Maps
- Symbol Map
- Use Google Maps
- Mapbox Maps as a Background Map
- WMS Server Map as a Background Map

Module 5: Learn Tableau Calculations & Filters

- Calculated Fields
- Basic Approach to Calculate Rank
- Advanced Approach to Calculate Ra
- Calculating Running Total
- Filters Introduction
- Quick Filters
- Filters on Dimensions
- Conditional Filters

- Top and Bottom Filters
- Filters on Measures
- Context Filters
- Slicing Fliters
- Data Source Filters
- Extract Filters

Module 6: Learn Tableau Dashboards

- Create a Dashboard
- Format Dashboard Layout
- Create a Device Preview of a Dashboard
- Create Filters on Dashboard
- Dashboard Objects

- Create a Story

Module 7: Server

- Tableau online.
- Overview of Tableau • Publishing Tableau objects and scheduling/subscription.

SQL

Introduction to Database

- List the features of Oracle Database 11g
- Discuss the basic design, theoretical, and physical aspects of a relational database
- Categorize the different types of SQL statements
- Describe the data set used by the course
- Log on to the database using SQL Developer environment
- Save queries to files and use script files in SQL Developer

Retrieve Data using the SQL SELECT Statement

- List the capabilities of SQL SELECT statements
- Generate a report of data from the output of a basic SELECT statement
- Select All Columns

- Select Specific Columns
- Use Column Heading Defaults
- Use Arithmetic Operators

- Understand Operator Precedence
- Learn the DESCRIBE command to display the table structure

Learn to Restrict and Sort Data

- Write queries that contain a WHERE clause to limit the output retrieved
- List the comparison operators and logical operators that are used in a WHERE clause
- Describe the rules of precedence for comparison and logical operators
- Use character string literals in the WHERE clause
- Write queries that contain an ORDER BY clause to sort the output of a SELECT statement
- Sort output in descending and ascending order

Usage of Single-Row Functions to Customize Output

- Describe the differences between single row and multiple row functions
- Manipulate strings with character function in the SELECT and WHERE clauses
- Manipulate numbers with the ROUND, TRUNC, and MOD functions
- Perform arithmetic with date data
- Manipulate dates with the DATE functions

Invoke Conversion Functions and Conditional Expressions

- Describe implicit and explicit data type conversion
- Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
- Nest multiple functions
- Apply the NVL, NULLIF, and COALESCE functions to data
- Use conditional IF THEN ELSE logic in a SELECT

Aggregate Data Using the Group Functions

- Use the aggregation functions in SELECT statements to produce meaningful reports
- Divide the data into groups by using the GROUP BY clause

- Exclude groups of date by using the HAVING clause

Display Data from Multiple Tables Using Joins

- Write SELECT statements to access data from more than one table
- View data that generally does not meet a join condition by using outer joins
- Join a table by using a self-join

Use Subqueries to Solve Queries

- Describe the types of problem that subqueries can solve
- Define sub-queries
- List the types of sub-queries

The SET Operators

- Describe the SET operators
- Use a SET operator to combine multiple queries into a single query
- Control the order of rows returned

Data Manipulation Statements

- Describe each DML statement
- Insert rows into a table
- Change rows in a table by the UPDATE statement
- Delete rows from a table with the DELETE statement
- Save and discard changes with the COMMIT and ROLLBACK statements
- Explain read consistency

Use of DDL Statements to Create and Manage Tables

- Categorize the main database objects
- Review the table structure
- List the data types available for columns
- Create a simple table
- Decipher how constraints can be created at table creation
- Describe how schema objects work

Other Schema Objects

- Create a simple and complex view
- Retrieve data from views
- Create, maintain, and use sequences
- Create and maintain indexes
- Create private and public synonyms

Control User Access

- Differentiate system privileges from object privileges
- Create Users
- Grant System Privileges
- Create and Grant Privileges to a Role
- Change Your Password
- Grant Object Privileges • How to pass on privileges?
- Revoke Object Privileges

Management of Schema Objects

- Add, Modify and Drop a Column
- Add, Drop and Defer a Constraint

- How to enable and Disable a Constraint?
- Create and Remove Indexes
- Create a Function-Based Index
- Perform Flashback Operations
- Create an External Table by Using ORACLE_LOADER and by Using ORACLE_DATAPUMP
- Query External Tables

Manage Objects with Data Dictionary Views

- Explain the data dictionary

- Use the Dictionary Views
- USER_OBJECTS and ALL_OBJECTS Views
- Table and Column Information
- Query the dictionary views for constraint information
- Query the dictionary views for view, sequence, index, and synonym information
- Add a comment to a table
- Query the dictionary views for comment information

Manipulate Large Data Sets

- Use Subqueries to Manipulate Data
- Retrieve Data Using a Subquery as Source
- Insert Using a Subquery as a Target
- Usage of the WITH CHECK OPTION Keyword on DML Statements
- List the types of Multitable INSERT Statements
- Use Multitable INSERT Statements
- Merge rows in a table
- Track Changes in Data over a period of time

Data Management in Different Time Zones

- Time Zones

- CURRENT_DATE, CURRENT_TIMESTAMP, and LOCALTIMESTAMP
- Compare Date and Time in a Session's Time Zone
- DBTIMEZONE and SESSIONTIMEZONE
- Difference between DATE and TIMESTAMP
- INTERVAL Data Types
- Use EXTRACT, TZ_OFFSET, and FROM_TZ
- Invoke TO_TIMESTAMP, TO_YMINTERVAL and TO_DSINTERVAL

Retrieve Data Using Sub-queries

- Multiple-Column Subqueries

- Pairwise and Non Pairwise Comparison
- Scalar Subquery Expressions
- Solve problems with Correlated Subqueries
- Update and Delete Rows Using Correlated Subqueries
- The EXISTS and NOT EXISTS operators
- Invoke the WITH clause
- The Recursive WITH clause

Regular Expression Support

- Use the Regular Expressions Functions and Conditions in SQL
- Use Meta Characters with Regular Expressions
- Perform a Basic Search using the REGEXP_LIKE function
- Find patterns using the REGEXP_INSTR function
- Extract Substrings using the REGEXP_SUBSTR function
- Replace Patterns Using the REGEXP_REPLACE function
- Usage of Sub-Expressions with Regular Expression Support
- Implement the REGEXP_COUNT function

Our Training Benefits

Check out our innovative key features in training methodologies. Our flexible training mechanisms incorporate all techniques right from knowledge assessment till setting placement records.

➔ Gain knowledge from experienced professionals in the field.

➔ Learn both theoretical concepts and gain practical experience at the same time.

➔ Training that provides real-world, hands-on experience in order to teach proper workplace practices.

➔ Grab certification upon completion of training

➔ Receive placement assistance following completion of training ➔

Being exposed to the most recent technological advancements.

➔ Learning tools will be provided along with the most up-to-date lab facilities, curriculum, and course materials

- You will be able to connect with the trainers at any time.