

#Learn_from_Home

CERTIFICATION COURSE ON DATA ANALYTICS

Course Code : LFH/DAML/01

Duration: 15 - 21 days

Course Syllabus

INTRODUCTION

This industry oriented course is developed by both the Software development division & Training division of **ipsr solutions limited**. IPSR is a **public limited IT company** with 20 years of expertise in [Software product development](#), [Training services](#), [Placement services](#) & [Digital Marketing services](#). During the past 2 decades, IPSR has trained candidates from **50+ countries** and helped **40000+ candidates** to build their IT career. Our IT services division is a pioneer in development of **Academic solution products**, incorporating cutting edge technologies like Artificial Intelligence, Data Analytics and Machine learning. Live industry experts from this IT division contribute a major role in delivering this course. Our placement division is having **1500+ placement tie-up companies** and we are conducting [recruitment on all days](#).

The Course curriculum is designed and developed by a team of expertise panel lead by following academicians

❑ **Dr. Mendus Jacob, M.Sc., M.Phil., Ph.D., MIOB**

❑ M.D & C.E.O - IPSR & Valin Technologies, U.K.

❑ Director - MCA, Marian College, Kuttikkanam (Autonomous)

❑ Former Director of School of Applicable Mathematics, M.G. University. ❑
Academician and Entrepreneur with 30+ years of experience

❑ **Dr. Sunil Job K.A, M.Sc, M.Ed, M.Phil, Ph.D., RHCE**

❑ Chief of Academic Solutions - IPSR

❑ Former college Principal and a Specialist in Data Analytics & Machine Learning ❑ Blogger
and a Resource person for National conferences

❑ Academician with 25+ years of experience

What you'll learn

- ✓ Importance of data in data analysis and machine learning and different visualization methods.
- ✓ How to visualize real world data and analyze the data using Excel and Tableau.

Description

This course is aimed for students who want to become a data analyst or as a first step for those who want to become a data scientist or machine learning engineer or AI programmer.

Course Outcome (CO)

While successfully completing this course, the learner will be able to:

- Explain data, its types and relevance in data analysis and Machine Learning.
- Collect data in different ways.
- Clean and prepare the data for analysing.
- Visualize real word data and analyse the data.
- Explain what is a dashboard and different dashboard types.
- Create a dashboard using excel.
- Summarize data and create various summarized graphs using pivot tables and pivot charts.

Environment setting

- Installation of Tableau Public
- Integration of Data Analytics Pack in Excel
- Integration of Web Scraper Extension to Chrome browser
- Installation of MySQL for excel
- Installation of sqlite odb. Driver



Course Contents

1. Data Explained

- What is data
- Relevance of data
- Types of data
- Data formats
- Data source

2. Introduction to Data Analytics

- Meaning and Scope
- Types of Data Analytics
- Steps in Data Analytics

Selection of a Project Topic and writing synopsis of about one page

3. Data collection.

- Collect data using Questionnaire, Web forms, Jot forms etc
- Web Scraping - ecommerce data using chrome extension
- Data from Twitter, Facebook etc using Octoparse
- Get data from a database to an excel file using database connector
- Get data from websites using excel

4. Data Preprocessing

- Text-to-columns
- Find and replace
- Filter
- Remove duplicates
- Delete all Formatting
- Remove Extra Spaces
- Missing value replacing
- Numbers Stored as Text into Numbers
- Change Text case
- Outliers Removal (What is outlier, how to identify, boxplot to remove outlier)
- Label encoding and dealing with categorical data



- Data scaling and reverting the scaled data to original format
- Column splitting
- Conditional function in excel like if...else, vlook, sumif, countif etc

5. Data visualization

- Visualization examples
- Types of data visualization
- Right method of chart selection
- Data visualization tasks using real world data

6. Dashboard

- What is dashboard
- Various types of Dashboards
- Ingredients for creating an effective dashboard.

7. Workflow for creating dashboard

- Steps for creating Dashboard

8. Pivot table using excel

- Summarizing data
- Rows and fields

9. Pivot chart using excel

- Creating various summarized graphs
- Selecting right data columns

10. Dashboard using excel

- Taking real world data to create excel dashboard
- Various settings in Dashboard design options

11. Tableau initialization

- Tableau installation
- Data source settings in tableau
- Data Interpreter
- Interface of Tableau sheet
- Various menu options

12. Data Integration using Tableau

- Inner join
- Left and right join
- Outer join

13. Visualization using Tableau

- Various graphs in tableau
- Real world data visualization tasks

14. Dashboard using Tableau

- Taking real world data to create Tableau dashboard
- Various settings in Dashboard design options

Common Session on Interactive Dashboard, make Infographics using Power point

Preparation of a Project report and presentation related to the project done and present it before a panel.

Recommended Learning Path

1. Certification on Data Analytics -----> Data Analytics Elite
2. Certification on Data Analytics -----> Data Analytics Elite ----- > Python for Data Analytics
3. Certification on Data Analytics -----> Python for Data Analytics-----> Advanced Data Analytics using Python
4. Certification on Data Analytics -----> Python for Data Analytics -----> Advanced Data Analytics using Python -----> Machine Learning
5. Certification on Data Analytics -----> Python for Data Analytics -----> Advanced Data Analytics using Python -----> Machine Learning -----> Basic AI with Deep Learning



Contact Us

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We have branches at Kochi, Thiruvananthapuram, Calicut and Bengaluru.