



DATA FELLOWSHIP PROGRAM CURRICULUM

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ABOUT THIS COURSE

- Xtraleap's Data Fellow Program is a 4-week course and will expose you to the data and analytics practices that we've implemented at various fortune 100 companies. We will explore data engineering concepts, how data created, stored, processed, and analyzed.
- This course will give you a strong foundation in all the areas that support data and its operations and will help you to better position yourself for success. You'll learn data and applying methods and skills that will make you more knowledgeable and allow you to become a successful data fellow.
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- This course also provides real-world scenarios and hands-on lab experience for you to try and observe. In the end, Every student needs to submit an assignment, and upon successful completion, he/she will secure Xtraleap's Data Fellow Certificate.

Instructor



Siva Kowsika

Siva is an expert implementation consultant, solutions, and application architect and known for the rapid development of projects at several organizations. Siva holds M.S in software engineering from the university of Birla Institute of Technology and Science, Pilani.

Facebook, Apple, Cisco, NJM, Barclays, Societe Generate are just a few notable clients where Siva has developed and deployed Data and Analytics Solutions. He'd be sharing his experiences, learning, knowledge, and best practices in data.



Syllabus – Week 1

Title: Introduction to Data and Analytics and Real-World Examples

Lesson 1: Introduction to the course

Lesson 2: Introduction to the field and career opportunities

Lesson 3: Data usage in public and private sector

Lesson 4: Data capture and storage

Lesson 5: Dealing with different types of data



Syllabus – Week 2

Title: Data and Analytics Evolution, Tools and Technologies

Lesson 1: Data storage and databases history, evolution

Lesson 2: BIG data and cloud computing

Lesson 3: Relational, No-SQL, Graph, In-memory databases

Lesson 4: Reporting tools – Tableau, PowerBI and Qlik

Lesson 5: Data life cycle from capture to insights.



Syllabus – Week 3

Title: Data Analysis using SQL

Lesson 1: Database deployment and table creation

Lesson 2: Introduction to SQL syntax, relationships and joins

Lesson 3: Data querying, aggregations, sorting and storing.

Lesson 4: Extraction of data using joins and complex SQL queries.

Lesson 5: SQL subqueries, CTE's, operators like Union, Union All, Except.

Syllabus – Week 4



Title: Business Analytics using Excel and Tableau

Lesson 1: Connecting to data bases and retrieving for analysis using Excel / Tableau

Lesson 2: Functions and transformations like Trim, Concatenate, Lookup etc.

Lesson 3: Pivot tables and charts.

Lesson 4: Interactive data exploration and dashboard visualization development.

Lesson 5: Tips and tricks. Final assignment discussion with students.