

PROFESSIONAL TRAINING

by

AKASH D

REG NO : 41739001

ROLL NO : 21S739502

Course Code : S739APT

Course Staff : Dr Alex Anand D

CERTIFIED COURSES

- | | |
|---------------------------------------|-------------------|
| 1. INTRODUCTION TO CLOUD COMPUTING | |
| - IBM (COURSERA) | - 13 hours |
| 2. CLOUD COMPUTING BASICS (CLOUD 101) | |
| - Learn Quest (COURSERA) | - 9 hours |
| 3. WHAT IS DATA SCIENCE? | |
| - IBM (COURSERA) | - 9 hours |
| 4. SQL FOR DATA SCIENCE | |
| - UCDAVIS (COURSERA) | - 14 hours |
| 5. PYTHON | |
| - KAGGLE | - 5 hours |
| 6. INTRO TO SQL | |
| - KAGGLE | - 3 hours |
| 7. INTRO TO MACHINE LEARNING | |
| - KAGGLE | - 3 hours |
| TOTAL DURATION OF COURSES | - 56 hours |

Introduction to Cloud Computing

by IBM

About this Course

This course introduces you to the core concepts of cloud computing. You gain the foundational knowledge required for understanding cloud computing from a business perspective as also for becoming a cloud practitioner. You understand the definition and essential characteristics of cloud computing, its history, the business case for cloud computing, and emerging technology use cases enabled by cloud. We introduce you to some of the prominent service providers of our times (e.g. AWS, Google, IBM, Microsoft, etc.) the services they offer, and look at some case studies of cloud computing across industry verticals.

Overview of Cloud Computing

This week you will learn about the definition and essential characteristics of cloud computing. You will learn about the evolution of cloud computing, the emerging technologies supported by cloud, and the business case for cloud computing. In this module, you will learn about the definition and essential characteristics of cloud computing. You will also learn about the evolution of cloud computing, the business case for cloud adoption, and how some of the emerging technologies are being supported by cloud computing.

WHAT I LEARNT

- Define cloud computing and explain essential characteristics, history, the business case for cloud, and the emerging technologies enabled by cloud
- Describe the cloud service models Describe cloud service models, cloud deployment models, and cloud infrastructure
- Explain emerging Cloud related trends including HybridMulticloud, Microservices, Serverless, Cloud Native, DevOps, and Application Modernization
- Create IBM Cloud account and provision an instance of cloud object storage service to host a static webpage.

SKILLS GAINED

- Cloud Native
- Devops
- IaaS PaaS SaaS
- Hybrid Multicloud
- Cloud Computing

Taught by :

[Rav Ahuja](#), Global Program Director
IBM Skills Network

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Jun 5, 2022

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has successfully completed

Introduction to Cloud Computing

an online non-credit course authorized by IBM and offered through Coursera

Rav Ahuja
Global Program Director,
Skills Network

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Cloud Computing Basics (Cloud 101)

by LearnQuest

About this Course

Over the next few weeks, we will discuss the basics of Cloud computing: what it is, what it supports, and how it is delivered. We will delve into storage services, Cloud economics, levels of managed infrastructure, and Azure services. We will also explore different deployment models of Cloud computing, as well as several hosting scenarios. Last but not least, we will compare some of the cloud platforms and discuss the future of cloud computing.

What is the "Cloud"?

In this module, we'll discuss what the Cloud is, what it supports, and how it is delivered. We'll also explore computing as a utility, storage services, and Cloud economics, as well as distributed computing, managed infrastructure, and Azure services.

WHAT I LEARNT

- Explain Azure Services and APIs and how they relate to Cloud computing
- Identify each of the managed services and explain the differences between them
- Understand the differences between Cloud deployment models
- Identify available Cloud Service Platforms and determine which works best for your needs

Taught by : [Jim Sullivan](#), Master Trainer and Technology Practitioner

SKILLS GAINED : *Devops *IaaS PaaS SaaS *Hybrid Multicloud *Cloud Computing



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Cloud Computing Basics (Cloud 101)

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Jim Sullivan
Master Trainer and Technology Practitioner

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What is Data Science?

by IBM

About this Course

The art of uncovering the insights and trends in data has been around since ancient times. The ancient Egyptians used census data to increase efficiency in tax collection and they accurately predicted the flooding of the Nile river every year. Since then, people working in data science have carved out a unique and distinct field for the work they do. This field is data science. In this course, we will meet some data science practitioners and we will get an overview of what data science is today.

Defining Data Science and What Data Scientists Do

In this module, you will view the course syllabus to learn what will be taught in this course. You will hear from data science professionals to discover what data science is, what data scientists do, and what tools and algorithms data scientists use on a daily basis. Finally, you will complete a reading assignment to find out why data science is considered the sexiest job in the 21st century.

WHAT I LEARNT

- Define data science and its importance in today's data-driven world.
- Describe the various paths that can lead to a career in data science.
- Summarize advice given by seasoned data science professionals to data scientists who are just starting out.
- Explain why data science is considered the most in-demand job in the 21st century.

Taught by : [Rav Ahuja](#), Global Program Director IBM Skills Network & [Alex Aklson](#), Ph.D., Data Scientist

SKILLS GAINED : *Data Science *Deep Learning *Machine Learning *Big Data *Data Mining



Jun 7, 2022

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What is Data Science?

an online non-credit course authorized by IBM and offered through Coursera

COURSE
CERTIFICATE



Rav Ahuja
Global Program Director,
Skills Network

Alex Akson, Ph.D.
Data Scientist

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SQL for Data Science

by University of California, Davis

About this Course

As data collection has increased exponentially, so has the need for people skilled at using and interacting with data; to be able to think critically, and provide insights to make better decisions and optimize their businesses. This is a data scientist, “part mathematician, part computer scientist, and part trend spotter” (SAS Institute, Inc.). According to Glassdoor, being a data scientist is the best job in America; with a median base salary of \$110,000 and thousands of job openings at a time. The skills necessary to be a good data scientist include being able to retrieve and work with data, and to do that you need to be well versed in SQL, the standard language for communicating with database systems.

Getting Started and Selecting & Retrieving Data with SQL

In this module, you will be able to define SQL and discuss how SQL differs from other computer languages. You will be able to compare and contrast the roles of a database administrator and a data scientist, and explain the differences between one-to-one, one-to-many, and many-to-many relationships with databases. You will be able to use the SELECT statement and talk about some basic syntax rules. You will be able to add comments in your code and synthesize its importance.

WHAT I LEARNT

- Identify a subset of data needed from a column or set of columns and write a SQL query to limit to those results.
- Use SQL commands to filter, sort, and summarize data.
- Create an analysis table from multiple queries using the UNION operator.
- Manipulate strings, dates, & numeric data using functions to integrate data from different sources into fields with the correct format for analysis.

Taught by: [Sadie St. Lawrence](#), Founder and CEO Women in Data (WID)

UC DAVIS

Jun 5, 2022

AKASH D

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SQL for Data Science

an online non-credit course authorized by University of California, Davis and offered through Coursera



Sadie St. Lawrence
Founder of Women in Data (WID)
Instructor, Continuing and Professional Education

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PYTHON - KAGGLE

About This Course

In technical terms, Python is an object-oriented, high-level programming language with integrated dynamic semantics primarily for web and app development. Python is relatively simple, so it's easy to learn since it requires a unique syntax that focuses on readability. Developers can read and translate Python code much easier than other languages. In turn, this reduces the cost of program maintenance and development because it allows teams to work collaboratively without significant language and experience barriers.

LESSONS LEARNT

1.Hello, Python

- A quick introduction to Python syntax, variable assignment, and number

2.Functions and Getting Help

- Calling functions and defining our own, and using Python's builtin documentation

3.Booleans and Conditionals

- Using booleans for branching logic

4.Lists

- Lists and the things you can do with them. Includes indexing, slicing and mutating

5.Loops and List Comprehensions

- For and while loops, and a much-loved Python feature: list comprehensions

6.Strings and Dictionaries

- Working with strings and dictionaries, two fundamental Python data types

7.Working with External Libraries

- Imports, operator overloading, and survival tips for venturing into the world of external libraries



CERTIFICATE OF COMPLETION

AKASH D

HAS SUCCESSFULLY COMPLETED THE COURSE

Python

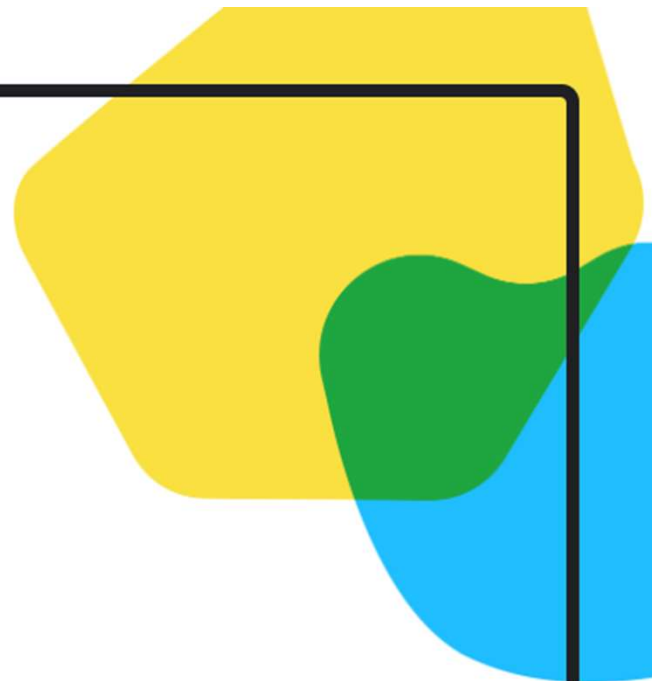
ON MAY 18, 2022

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COLIN MORRIS, KAGGLE INSTRUCTOR

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ALEXIS COOK, HEAD OF KAGGLE LEARN



INTRO TO SQL - KAGGLE

About This Course:

Structured Query Language (SQL) is a computer language that we use to interact with a relational database. SQL is a tool for organizing, managing, and retrieving archived data from a computer database. The original name was given by IBM as Structured English Query Language, abbreviated by the acronym SEQUEL. When data needs to be retrieved from a database, SQL is used to make the request. The DBMS processes the SQL query retrieves the requested data and returns it to us. Rather, SQL statements describe how a collection of data should be organized or what data should be extracted or added to the database. In common usage, SQL encompasses [DDL](#) and [DML](#) commands for create, updates, modified or other operations on database structure.

LESSONS LEARNT

1. Getting Started With SQL and BigQuery

- [Learn the workflow for handling big datasets with BigQuery and SQL](#)

2. Select, From & Where

- [The foundational components for all SQL queries](#)

3. Group By, Having & Count

- [Get more interesting insights directly from your SQL queries](#)

4. Order By

- [Order your results to focus on the most important data for your use case.](#)

5. As & With

- [Organize your query for better readability. This becomes especially important for complex queries.](#)

6. Joining Data

- [Combine data sources. Critical for almost all real-world data problems](#)



CERTIFICATE OF COMPLETION

AKASH D

HAS SUCCESSFULLY COMPLETED THE COURSE

Intro to SQL

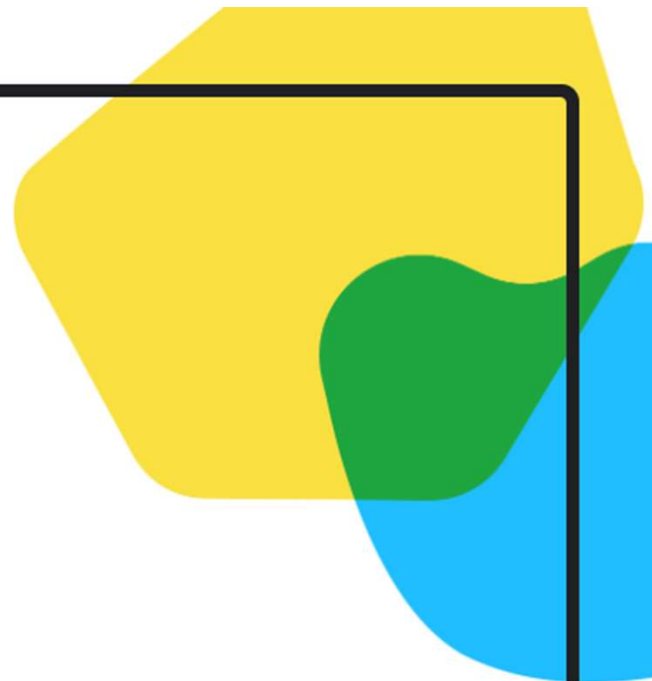
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RACHAEL TATMAN, KAGGLE INSTRUCTOR

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ALEXIS COOK, HEAD OF KAGGLE LEARN



INTRO TO MACHINE LEARNING - KAGGLE

About This Course

Machine learning (ML) is the study of computer algorithms that improve automatically through experience and by the use of data. It is seen as a part of artificial intelligence and a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy. IBM has a rich history with machine learning. This machine learning process starts with feeding them good quality data and then training the machines by building various machine learning models using the data and different algorithms.

LESSONS LEARNT

1. How Models Work

- The first step if you're new to machine learning.

2. Basic Data Exploration

- Load and understand your data.

3. Your First Machine Learning Model

- Building your first model. Hurray!

4. Model Validation

- Measure the performance of your model, so you can test and compare alternatives.

5. Underfitting and Overfitting

- Fine-tune your model for better performance.

6. Random Forests

- Using a more sophisticated machine learning algorithm.

7. Machine Learning Competitions

- Enter the world of machine learning competitions to keep improving and see your progress.



CERTIFICATE OF COMPLETION

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HAS SUCCESSFULLY COMPLETED THE COURSE

Intro to Machine Learning

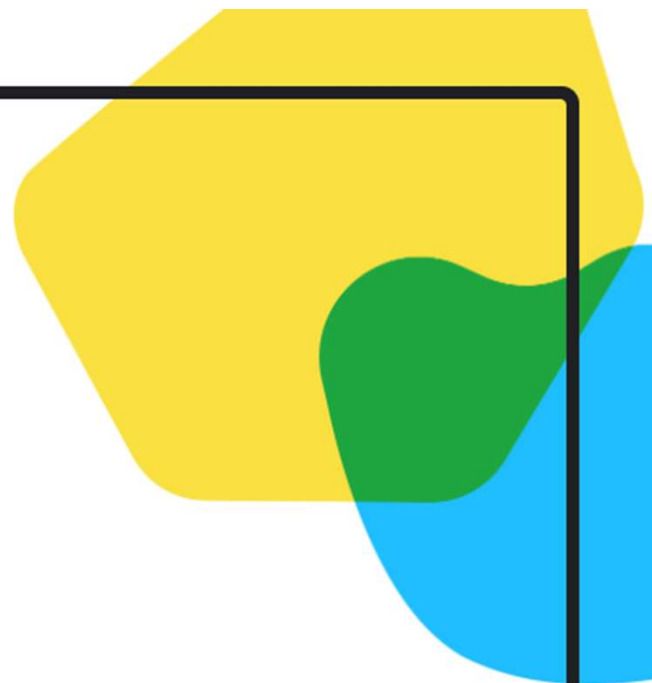
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DAN BECKER, KAGGLE INSTRUCTOR

A handwritten signature in black ink, reading "Alexis Cook", written over a thin horizontal line.

ALEXIS COOK, HEAD OF KAGGLE LEARN



THANK YOU