



EXECUTIVE PROGRAM SYLLABUS

Cloud Computing for Business Leaders



Overview

The goal of the Cloud Computing for Business Leaders Executive Program is to equip executives with the practical skills needed to create, implement and assess cloud strategies and technologies. The program will focus on the unique knowledge and skills that business leaders need to unlock the value of cloud computing in their organizations, or enable a more cloud-native department that leverages cloud computing to drive growth and create operational efficiencies. Among the key topics covered are how to build a business case for cloud, how to address challenges associated with people, process and culture in adoption of cloud and strategies to overcome the challenges, how to set up a governance model for cloud to enforce organizational policies while promoting business agility and how to apply novel cloud services to innovate in the business.

Prerequisites:

A well prepared student for this program:

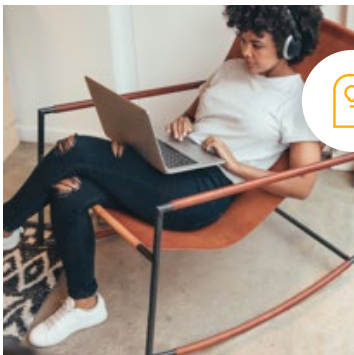
- Identify workloads (business processes, applications, etc.) within their organization that can be automated or made more efficient
- Identify roles, skills, organizational silos and procedural constraints within the organization
- Understand the basics of information security
- Demonstrate familiarity with current budgeting practices
- Perform basic functions with word processors, spreadsheets and similar numerical analysis and presentation tools



Estimated Time:
4 - 8 Weeks
at 5 hours/week



Prerequisites:
Word Processors,
Spreadsheets,
Presentation Tools



Flexible Learning:
Self-paced, so
you can learn on
the schedule that
works best for you.



Technical Mentor Support:
Our knowledgeable
mentors guide your
learning and are
focused on answering
your questions,
motivating you and
keeping you on track

*The length of this program is an estimation of total hours the average student may take to complete all required coursework, including lecture and project time. If you spend about 5-10 hours per week working through the program, you should finish within the time provided. Actual hours may vary.

Course: Cloud Computing for Business Leaders

Every business is either going through a digital transformation or planning to, and cloud is almost always an integral part of it. Cloud computing has already crossed the chasm and is now mainstream across all industries. However, cloud is not just a technology, it's a way of doing business. This course is designed with that in mind.

First, we study the business case for cloud. We look at transitioning existing workloads and creating new ones to maximize your ROI and minimize risks. Then we look at preparing your organization by transitioning your people, processes and culture to this new world of cloud. We discuss DevOps, DevSecOps and FinOps as cultural practices. We also discuss how to transform the overall organizational culture and mindset for cloud by setting up a Cloud Center of Excellence (CCOE).

Once we understand how to build this new mindset, we focus on the governance aspects of cloud. While cloud gives you the speed to move fast with a lot of automation, it can lead to undesirable outcomes if you don't put in a governance model. We focus on the elements of a governance model with special emphasis on security, compliance and cost management in the cloud. We also discuss approaches to operationalize governance at enterprise scale.

Once you are in the cloud, you can innovate much faster as the cost of experimentation is very low and the payoff could be very high. We'll look at several leading-edge services provided by cloud providers that companies in every industry are using to innovate in their business. Finally, we'll look at a case study of a major US company that has successfully transformed itself with cloud with the strategy we've outlined here.

Capstone Project

Students will be given a fictitious company in the retail sector to analyze and propose a cloud strategy for. Students will be provided multiple artifacts such as company background, CEO email to staff highlighting business challenges and opportunities, org charts, email exchanges illustrating the culture and siloed mindset, financial information on datacenter costs, workload map to Data Centers and more.

Students will analyze these artifacts and from them begin building a cloud strategy that leverages the key learning objectives covered in the program. Students will identify business problems best addressed with cloud, prioritize workloads to maximize ROI, define the organizational model and changes in skill levels and processes, define a governance model that would mitigate risks and optimize spend, and propose a new innovative solution on the cloud that would deliver new business benefits.

LESSON CONTENT

Introduction and Business Case for the Cloud

Compare and contrast public, private and on-prem hosting of services through the different deployment and service model of the cloud. Explain how traditional models for determining cloud ROI using a TCO are only minimally effective, but in addition should include crucial elements such as improved operational resilience, ability to have higher productivity, increased speed of servicing customer needs, ability to scale up and down as needed and improving quality with ability to focus on the core differentiators. Learn the major migration strategies that allow a business at any stage of technology to begin moving towards the cloud.

Organizational Capability Building for Cloud

Learn required changes in your staff skill set, your existing processes and practices and your organizational culture to unlock the best value from the cloud. Learn how to drive these changes effectively in your organization. The effectiveness of these shifts in culture, people skills and processes are validated by the increased speed of doing business and an increase in innovations offered to your customers. Learn to use the target state model to help determine your current state and how to use the CCoE (Cloud Center of Excellence) virtual structure as the change agent to drive cloud adoption across the enterprise. Learn how to jump start the culture in your technology teams by moving your current operating model to a DevOps or DevSecOps model. Learn a new model or a cultural practice for Cloud Financial Management, bringing together finance, procurement and engineering teams to manage cloud spend.

Cloud Governance Model - Strategy and Implementation

Learn how to maximize business value while minimizing risks to your organization by defining an organization wide governance model. Learn key risk areas such as security, compliance and cost management and how to put automated controls to manage risks without compromising business agility. Dive deep into each of these areas (security, compliance, cost) to understand the risks and mechanisms provided by cloud providers to help you build a governance model on top to manage the risks. Learn how the requirements of skills, processes and culture are complementary to governance mechanisms.

Cloud Innovation and Futures

We will look at the increased pace of innovation and how it is driving disruption in all industries. Needless to say, you need to increase your own pace of innovation to avoid getting displaced or disrupted. How does the cloud support innovation? You can innovate anywhere. Innovation requires experimentation. Cloud providers offer almost instant access to a variety of compute, storage, network and higher value services that allow you to experiment in ways never possible. You can fail fast and learn quickly, but you can also quickly scale and expand into other markets If your experiment succeeds in the test market. Learn some fundamental cloud innovations that may help you innovate in your business. Serverless, Containers, IOT, AI, Data Analytics, Edge computing, Blockchain and Quantum computing are major cloud innovation areas today that you can adopt to innovate on top, and build your differentiators. How can organizations identify and take advantage of those innovations? We will take a look at several business cases studies of bleeding-edge innovations.

LEARNING OUTCOMES

LESSON ONE

Introduction and Business Case for Cloud Computing

- Distinguish the types of cloud models by service layers and deployment types
- Differentiate the full range of cloud benefits
- Describe and justify ROI of cloud-first proposal based on current infrastructure costs/capabilities
- Develop cloud migration strategies for different types of applications

LESSON TWO

Organizational Capability Building for Cloud

- Identify and address organizational skills gaps
- Build organizational capabilities to adopt cloud
- Setup appropriate virtual structures to drive cultural and process changes

LESSON THREE

Cloud Governance Model - Strategy and Implementation

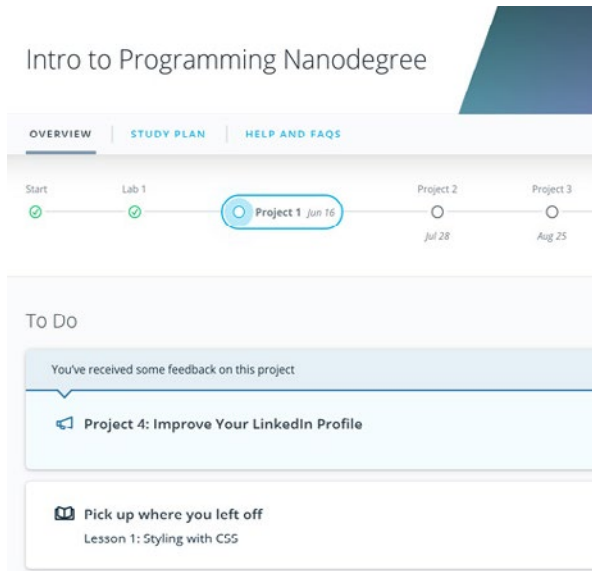
- Analyze cloud spend and implement a cloud spend governance model
- Implement a cloud security governance model using the “shared responsibility” model
- Implement compliance governance using the “governance, risk and compliance in the cloud” model
- Implement a governance model to manage cost, security and compliance at enterprise scale

LESSON FOUR

Cloud Innovation and Futures

- Identify and evaluate cloud innovation opportunities relevant to your business
- Design business solutions leveraging cloud innovation

Our Classroom Experience



REAL-WORLD PROJECTS

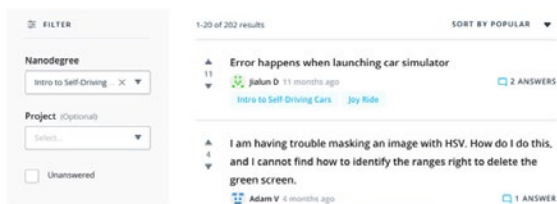
Build your skills through industry-relevant projects. Get personalized feedback from our network of 900+ project reviewers. Our simple interface makes it easy to submit your projects as often as you need and receive unlimited feedback on your work.

KNOWLEDGE

Find answers to your questions with Knowledge, our proprietary wiki. Search questions asked by other students, connect with technical mentors, and discover in real-time how to solve the challenges that you encounter.

WORKSPACES

See your code in action. Check the output and quality of your code by running them on workspaces that are a part of our classroom.

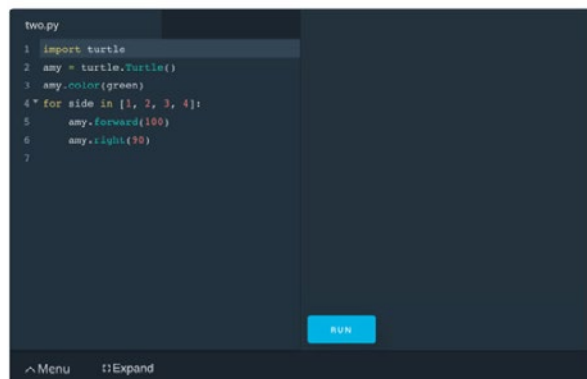


QUIZZES

Check your understanding of concepts learned in the program by answering simple and auto-graded quizzes. Easily go back to the lessons to brush up on concepts anytime you get an answer wrong.

CUSTOM STUDY PLANS

Create a custom study plan to suit your personal needs and use this plan to keep track of your progress toward your goal.



PROGRESS TRACKER

Stay on track to complete your Nanodegree program with useful milestone reminders.

Learn with the Best



Sanjay Agrawal

FOUNDER & CEO

Sanjay has over 20 years of experience with companies such as AWS, Microsoft and Sun Microsystems building engineering teams, defining products, founding new businesses and advising CxOs of large enterprises to adopt new technology. He co-founded TropoScale LLC, a cloud consulting and advisory firm, to help enterprises innovate with cloud.

All Our Nanodegree Programs Include:



EXPERIENCED PROJECT REVIEWERS

REVIEWER SERVICES

- Personalized feedback & line by line code reviews
- 1600+ Reviewers with a 4.85/5 average rating
- 3 hour average project review turnaround time
- Unlimited submissions and feedback loops
- Practical tips and industry best practices
- Additional suggested resources to improve



TECHNICAL MENTOR SUPPORT

MENTORSHIP SERVICES

- Questions answered quickly by our team of technical mentors
- 1000+ Mentors with a 4.7/5 average rating
- Support for all your technical questions



PERSONAL CAREER SERVICES

CAREER SUPPORT

- Github portfolio review
- LinkedIn profile optimization

Frequently Asked Questions

PROGRAM OVERVIEW

WHY SHOULD I ENROLL?

The goal of the Cloud Computing for Business Leaders Executive Program is to equip learners with the technical understanding to make tough, IT-driven decisions. The program helps executives with the knowledge and skills necessary to implement cloud computing initiatives across their businesses.

WHAT JOBS WILL THIS PROGRAM PREPARE ME FOR?

CIOs see the cloud as a predominant enabler of IT architecture and its modernization. The skills you will gain from this Executive Program will help you have a better understanding of the cloud which will qualify you to make higher-stakes decisions for your organization.

HOW DO I KNOW IF THIS PROGRAM IS RIGHT FOR ME?

The course is for business leaders who are looking to advance their careers by unlocking the value of data in the cloud.

WHAT IS AN EXECUTIVE PROGRAM? HOW IS IT DIFFERENT FROM A NANODEGREE PROGRAM?

Executive Programs are intensive, strategically-focused programs that empower business leaders to rapidly understand complex and technical concepts, like Artificial Intelligence, and apply these concepts to high-stakes decision-making in real-world business scenarios.

An Executive Program is focused on teaching how to weigh implications related to strategic decision making that affect an entire organization or department. Unlike a Nanodegree program, which goes much deeper on the technical execution of using a specific technology, Executive Programs focus on the fundamentals of a particular technology, like Artificial Intelligence or Data Science, and go deep into the key questions business executives should be considering around the application of those technologies, and the strategic implications that these technologies have at a corporate level.

WHAT IS INCLUDED IN AN EXECUTIVE PROGRAM?

Every Executive Program includes career services including a personal career coach, project reviews from industry professionals, technical mentor support so you can get help when you need it and a flexible learning plan so you can learn at your own pace.



FAQs Continued

ENROLLMENT AND ADMISSION

DO I NEED TO APPLY? WHAT ARE THE ADMISSION CRITERIA?

No. This Executive Program accepts all applicants regardless of experience and specific background.

WHAT ARE THE PREREQUISITES FOR ENROLLMENT?

A well-prepared student will meet the following prerequisites:

- Identify workloads (business processes, applications, etc) within their organization that can be automated or made more efficient
- Identify roles, skills, organizational silos and procedural constraints within the organization
- Understand the basics of information security
- Demonstrate familiarity with current budgeting practices
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IF I DO NOT MEET THE REQUIREMENTS TO ENROLL, WHAT SHOULD I DO?

Students who do not feel comfortable in the above may consider taking Udacity's Digital Transformation for Business Leaders Program.



FAQs Continued

TUITION AND TERM OF PROGRAM

HOW IS THIS EXECUTIVE PROGRAM STRUCTURED?

The Cloud Computing for Business Leaders Executive program consists of content and curriculum to support 1 project. We estimate that students can complete the program in 4-8 weeks working 5 hours per week.

The project will be reviewed by the Udacity reviewer network. Feedback will be provided and if you do not pass the project, you will be asked to resubmit the project until it passes.

HOW LONG IS THIS EXECUTIVE PROGRAM?

Access to this Executive Program runs for the length of time specified above. If you do not graduate within that time period, you will continue learning with month to month payments.

See the [Terms of Use](#) for other policies around the terms of access to our Executive Programs.

CAN I SWITCH MY START DATE? CAN I GET A REFUND?

Please see the Udacity program FAQs for policies on enrollment in our programs.

SOFTWARE AND HARDWARE

WHAT SOFTWARE VERSIONS WILL I NEED IN THIS PROGRAM?

There are no software and version requirements to complete this Executive Program. All coursework and projects can be completed via Student Workspaces in the Udacity online classroom.

