

### UPGRADE YOUR Skills and launch Your career

## GOOGLE CLOUD CURRICULUM

## NOVATEC

**TRAINING & SERVICES** 

## **CONTACT US**

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## **Description & Requirements**

### This course teaches participants the following skills:

- Identify the purpose and value of Google Cloud Platform products and services
- Interact with Google Cloud Platform services
- Describe ways in which customers have used Google Cloud Platform
- Choose among and use application deployment environments on Google Cloud Platform: Google App Engine, Google Kubernetes Engine, and Google Compute Engine
- Choose among and use Google Cloud Platform storage options: Google Cloud Storage, Google Cloud SQL, Google Cloud Bigtable, and Google Cloud Datastore
- Make basic use of BigQuery, Google's managed data warehouse for analytics
- Make basic use of Cloud Deployment Manager, Google's tool for creating and managing cloud resources through templates
- Make basic use of Google Stackdriver, Google's monitoring, logging, and diagnostics system

### System Requirements

Hardware Requirements

- Memory Minimum 8GB RAM
- Processor Intel Core i3 CPU @ 2.0 GHz or above
- Storage 250 GB HDD/SDD or above
- Software Requirements
  - Operating System Windows 10
  - Open internet with no proxy blocks to connect for virtual machines

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## **Google Cloud Platform**

#### **Module 1: Introducing Cloud Computing**

- Explain Cloud Computing and its various components.
- Explain the advantages of Google Cloud Platform.
- Define the components of Google's network infrastructure, including: Points of presence, data centers, regions, and zones.
- Understand the difference between Infrastructure-as-a- Service (IaaS) and Platform-as-a-Service (PaaS).

### Module 2: Introducing Google Cloud Platform

- Identify the purpose of projects on Google Cloud Platform.
- Understand the purpose of and use cases for Identity and Access Management.
- List the methods of interacting with Google Cloud Platform.
- Lab: Getting Started with Google Cloud Platform.

### Module 3: Virtual Machines and Networks in the Cloud

- Identify the purpose of and use cases for Google Compute Engine.
- Understand the various Google Cloud Platform networking and operational tools and services.
- Lab: Compute Engine

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## **Google Cloud Platform**

#### Module 4: Storage in the Cloud

- Understand the purpose of and use cases for: Google Cloud Storage, Google Cloud SQL, Google Cloud Bigtable, and Google Cloud Datastore.
- Learn how to choose between the various storage options on Google Cloud Platform.
- Lab: Cloud Storage and Cloud SQL

#### Module 5: Containers in the Cloud

- Define the concept of a container and identify uses for containers.
- Identify the purpose of and use cases for Google Kubernetes Engine and Kubernetes.
- Lab: Kubernetes Engine

#### **Module 6: Applications in the Cloud**

- Understand the purpose of and use cases for Google App Engine.
- Contrast the App Engine Standard environment with the App Engine Flexible environment.
- Understand the purpose of and use cases for Google Cloud Endpoints.
- Lab: App Engine

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## **Google Cloud Platform**

### Module 7: Developing, Deploying, and Monitoring in the Cloud

- Understand options for software developers to host their source code.
- Understand the purpose of template-based creation and management of resources.
- Understand the purpose of integrated monitoring, alerting, and debugging.
- Lab: Deployment Manager and Stackdriver

### Module 8: Big Data and Machine Learning in the Cloud

- Understand the purpose of and use cases for the products and services in the Google Cloud big data and machine learning platforms.
- Lab: BigQuery

### **Appendix: Extra Labs and Query Sessions**

- Lab: Site to Site VPN
- Lab: Cloud PostgreSQL
- Lab: Load Balancer
- Question/Answer Session

