Developing Application with GCP specialization

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When you begin re-architecting legacy applications, or developing new cloud native applications, it's important to understand how to design your application to support global reach, scalability, and high availability.

You will likely have various types of data storage needs. For example, your application might need to save high volumes of flat structured data, relational data, as well as multimedia.

The course getting started with application development, walks you through the best practices for developing secure, loosely coupled, scalable, and resilient applications.

You'll dive into services such as Google Cloud Storage, Google data store, Google Cloud SQL, Spanner and more. With this knowledge, you'll be well on your way to developing cloud native applications.

Target Audiences: Application developers who want to build cloud-native applications or redesign existing applications that will run on Google Cloud Platform

Prerequisites and Pre-work:

* Completed Google Cloud Platform Fundamentals or have equivalent experience
* Working knowledge of Node.js
* Basic proficiency with command-line tools and Linux operating system environments
* Previous course(s) in the specialization

All modules are available for download in PDF form (with student notes including linked resources) in the first content lecture video of each module.

Here is a breakdown of the modules in the course.

* Best Practices for Application Development.
* how to use Google Cloud Client Libraries, Google Cloud SDK, and Google Firebase SDKs to build applications that you can run in an execution environment of your choice.
* Cloud Datastore, Bigtable, Cloud Storage, Cloud SQL, Spanner, and other managed services to store your application data.
* How to handle user authentication and authorization.
* How to build loosely coupled applications and integrate components of your

application using Cloud Pub/Sub, Cloud Functions (for Event-driven processing), and Cloud Endpoints(manage API).

* The possibilities for adding intelligence to your application using Google's pre-trained machine learning APIs.
* Deploying Applications, you'll learn how to create repeatable deployments and develop strong build and release systems by treating infrastructure as code.
* The ideal use cases and factors to consider when choosing your application's execution environment. For example, when should you run your application on Compute Engine, Container Engine, or App Engine?
* Debugging, monitoring, and performance-tuning are crucial to running robust applications. In this module, you'll learn how to use Stackdriver features to debug and monitor applications in development and production environments. At the end of the course, you'll have learned and applied the skills to build highly scalable and reliable cloud native applications.