


Google Cloud Computing Foundation Course
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Lecture-4
IaaS PaaS and SaaS

This topic considers the key differences between infrastructure as a service platform as a service and software as a service together with the GCP services that fall within these categories.

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The slide is titled "Infrastructure as a service". It features a woman in a blue patterned top on the right side, appearing to be speaking. On the left side, there is a diagram consisting of four interlocking gears in red, blue, green, and yellow. Below the gears is a yellow box containing the text "IaaS". Underneath this box is a bulleted list:

- CPU, memory, storage, and networking is provided as a service.
- The user needs to manage the OS and the application.

With infrastructure as a service, the service provides the underlying architecture for you to run servers. The resources to run are provided but it is up to the user to manage the operating system and the application.


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Platform as a service



PaaS


- The platform is a managed service.
- All the user provides is the application.



Platform as-a-service takes it one step further. Now the entire environment will be managed for you the user and all that is required of you is to manage your applications. The operating system layer will be managed as a part of the service.

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Software as a service



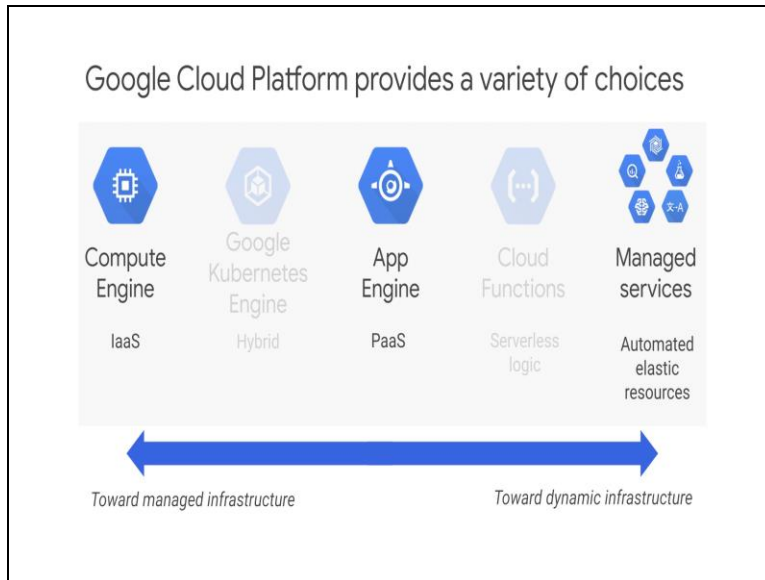
SaaS

- The platform and software is provided as a service to the user.
- The user supplies the data.



For software as a service the infrastructure platform and the software are managed for you. All that is required is that you bring your data to the system. A few commercial examples of SAAS include SAP and Salesforce.

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Virtualized data centers brought you infrastructure as a service and platform as a service offerings. IaaS offerings provide you with raw compute storage and network organized in ways familiar to you from physical and virtualized data centers. PaaS offerings on the other hand bind your code to libraries that provide access to the infrastructure your application needs allowing you to focus on your application logic.

In the IAAS model you pay for what you allocate, in the past model you pay for what you use. As cloud computing has evolved the momentum has shifted towards managed infrastructure and managed services.