1. Compare IaaS, PaaS, and SaaS on the basis of cost, configurability, and control (hint make a chart)

|  |  |  |  |
| --- | --- | --- | --- |
|  | IaaS | PaaS | Saas |
| Cost | Lower cost due to over internet delivery and no need for physical hardware | It’s a cost-effective solution for developers to create unique applications | More expensive than other options due to the cost of subscription to services |
| Configurability | Highly scalable and flexible | Built using VM technology and is very scalable depending on the team’s need and size | Software usually runs and is hosted on a remote server, eliminating the need for local hosting |
| Control | Allows complete control over an environment | Easy to run and control even without prior SysAdmin knowledge or experience | Sites like Google Workspace offer lots of control options but some prior knowledge and experience are helpful to have before using |

2. What are the caveats to consider in adopting Software as a Service?

You typically have less control with available features and customizability vs IaaS and PaaS. SaaS also tends to waste resources by having unnecessary apps running in the background that you may not need to run your business efficiently.

3. List the key advantages of virtual machines.

- Separate physical hardware isn’t necessary to run the VM. Shares hardware resources with the machine it’s being hosted on.

- Can be set up quickly using a shell script and VMware or VirtualBox.

- Can run multiples VMs at once all using separate operating systems on the same computer

4. Why might you choose physical over virtual machines?

- Less latency

- VMs require you to share resources with the computer it’s being hosted on. A physical machine can have its own hardware making it more powerful and faster potentially.

5. Which factors might make you choose private over public cloud services?

- Public cloud services are hacked and breaches more frequently than private services.

- Overall, private services are more secure and offer higher levels of encryption vs public services.