Welcome to Week 3

Virtual Mentored Academy

Microservices Architecture

Hello

About me...

- 27+ years in the industry
- 23+ years in teaching
- Certified Cloud architect
- Passionate about learning
- Also, passionate about Reese's Cups!

Agenda

- Microservices Architecture
- Deploying Microservices to Azure as Containers

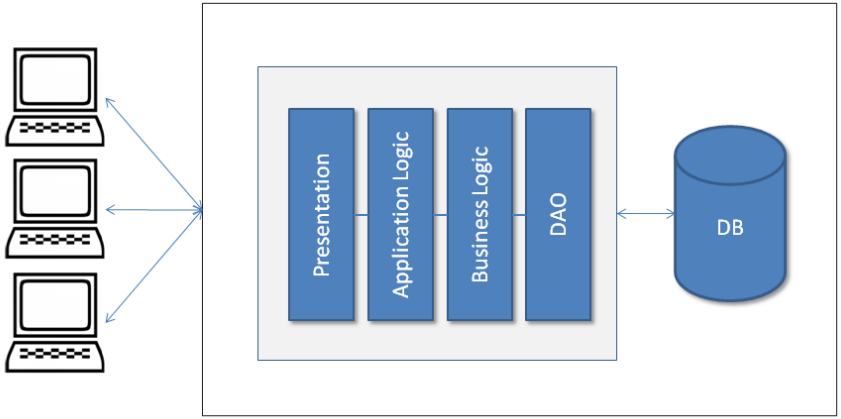
How we're going to work together

- Slides and words to highlight key concepts
- Demos to bring those concepts "to life"
- Lab work (which will take place in sandboxes provided by "A Cloud Guru") for hands-on reinforcement
- NOTE: I welcome being interrupted – if you need more info, or clarification, or anything else, just break in and ask. I am here to help you.

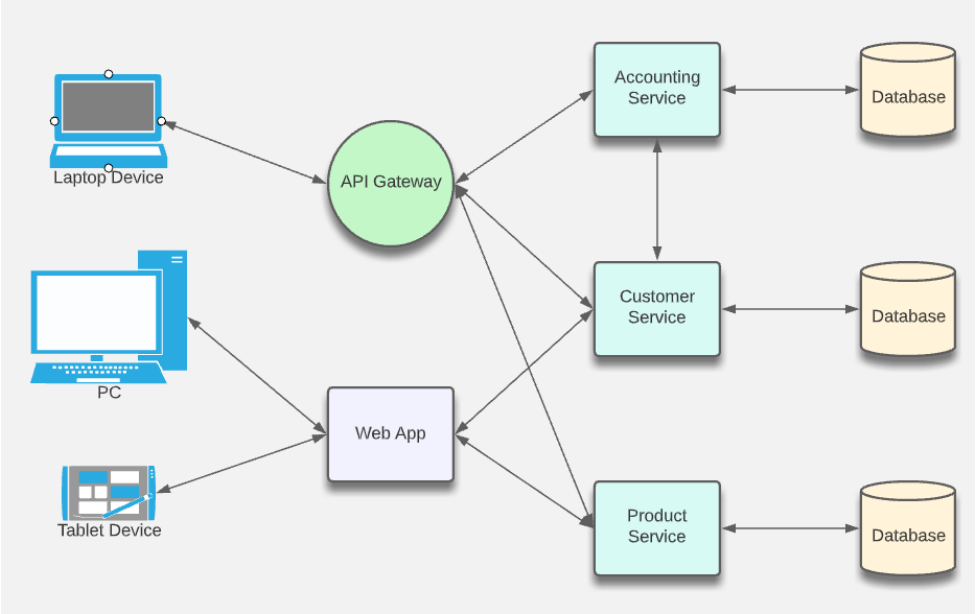
Microservices Architecture

What is a Monolith?

- Typical enterprise application
- Large codebases
- Set technology stack
- Highly coupled elements
- Whole system affected by failures
- Scaling requires the duplication of the entire app
- Minor changes often require full rebuild



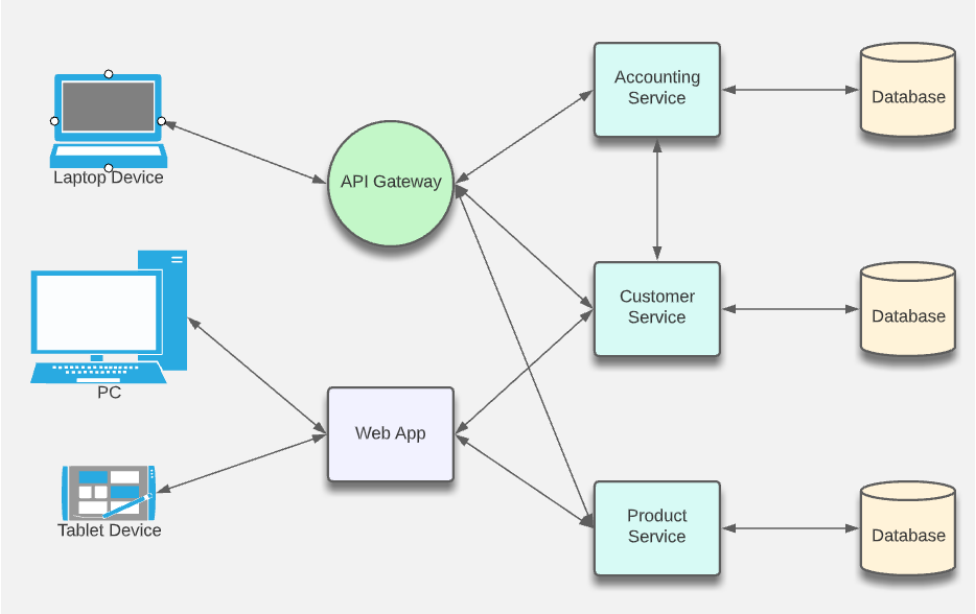
Microservices Architecture



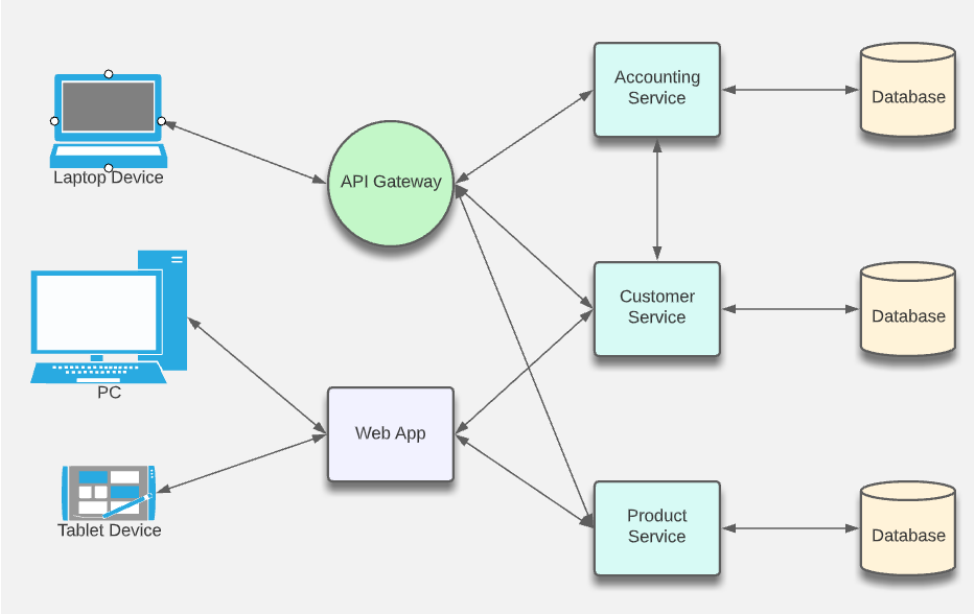
Microservices Architecture

Benefits

- Enables work in parallel
- Promotes organization according to business domain
- Advantages from isolation
- Flexible in terms of deployment and scale
- Flexible in terms of technology
- Allows multiple agile teams to maximize autonomy in effort and technology



Microservices Architecture



Implications

- Requires a different way of thinking
- Complexity moves to the integration layer
- Organization needs to be able to support re-org according to business domain (instead of technology domain)
- With an increased reliance on the network, you may encounter latency and failures at the network layer
- Transactions must be handled differently (across service boundaries)

Deploying Microservices to Azure as Containers

LAB:

Microservices in ACI

Execute the “Hands-On” lab available at https://github.com/KernelGamut32/azure_docker_microservices-public/tree/main/week03/labs/lab01

LAB:

Microservice Backend in Azure

Execute the “Hands-On” lab available at https://github.com/KernelGamut32/azure_docker_microservices-public/tree/main/week03/labs/lab02

LAB:

Microservice Frontend in Azure

Execute the “Hands-On” lab available at https://github.com/KernelGamut32/azure_docker_microservices-public/tree/main/week03/labs/lab03

LAB:

Multiple Microservices in Azure

Execute the “Hands-On” lab available at https://github.com/KernelGamut32/azure_docker_microservices-public/tree/main/week03/labs/lab04

Thank you!

If you have additional questions, please reach out to me at:
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