

Introduction

We have the ambitious goal of rebuilding Amazon.com's shopping experience as a set of microservices. To keep the scope narrow, please focus on the core features that relate to the "core user activity" of "purchasing an item". The mandatory services to include in the design are the authentication service and the item search service.

Required Deliverables

- A prioritized high-level technical roadmap for building these microservices.
- Release planning based on the roadmap.
- Set of KPIs to track the success of the product as we progress on our roadmap and how we can measure them.
- A high-level diagram of all the proposed microservices and their communications with each other as well as our Web/Mobile applications. Ideally, use UML.
- High-level technical specification documents for all services. (Architecture, tooling, framework, ...)
- API definition for the microservices using OpenAPI/Swagger
- The database schema/s for the proposed microservices.
- Implement a simple version of the authentication service using C++ and a framework of your choice and deploy it to AWS, Google Cloud or Azure.
 - Share the URL for us to test.
 - Please use Git as version control. Create a new project in your own GitHub account and push the code to it.
 - Pay special attention to the "README.md" document, we would like you to keep it as informative as possible.
- Please also push all the documentation and diagrams to GitHub.

Bonus Items

- Demonstrate CI/CD chops
- Use Docker and/or Kubernetes
- Use Terraform or CloudFormation
- Build a "Login" UI using a JS framework of your choice to use the Auth API.

Duration

1 week