

C4 Model

2021-08 @Guzhongren

Game Time

Please introduce us your former project in 5 mins?

Architecture Is In Our Heads

Why

When you try to share a system architecture, what will you do?

- Mess of boxes and lines
- Mixed abstractions
- Ambiguous Naming
- Unlabelled relationships
- Inconsistent notation
- Missing technology choices

"Good software architecture diagrams help to align everybody's understanding"

– Someone

What

C4 Model

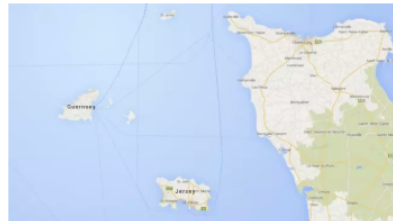
- System Context
- Container
- Component
- Code

Abstraction-First

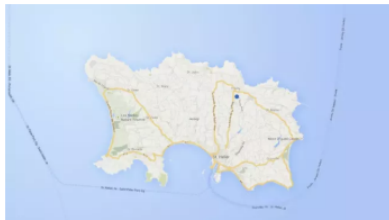
Different levels of detail, telling different stories to different types of audience



国家级



省级



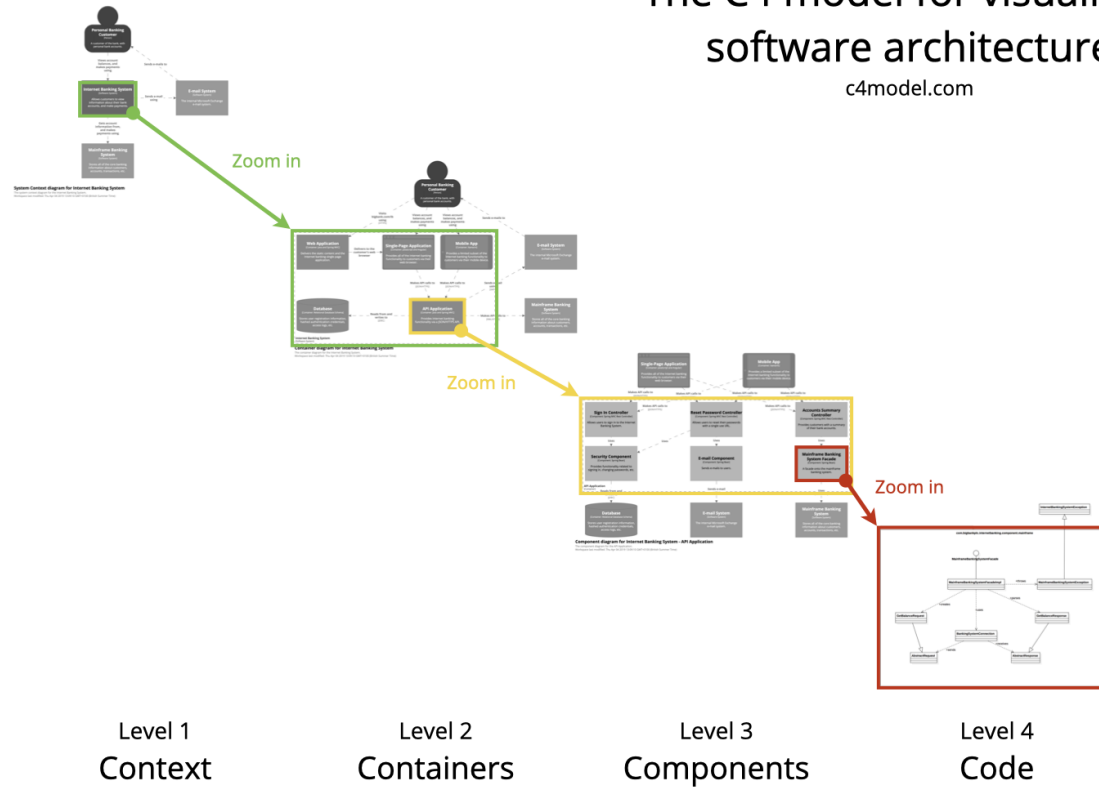
市级



道路级

The C4 model for visualising software architecture

c4model.com



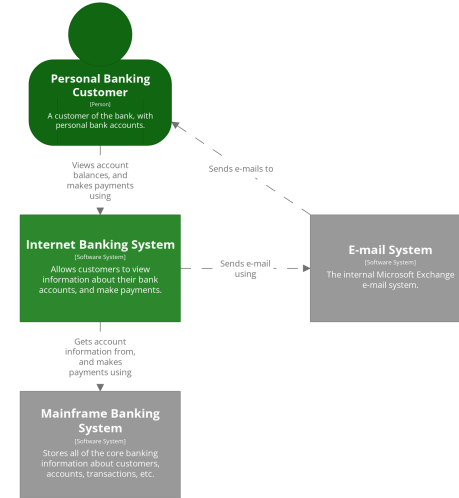
How

Level 1: A System Context diagram [low-level details]

Provide a starting point, showing how the software system in scope fits into the world around it.

Intended audience:

Everybody, both technical and non-technical people, inside and outside of the software development team.



[System Context] Internet Banking System

The system context diagram for the Internet Banking System - diagram created with Structurizr.
Wednesday, March 22, 2023 at 8:16 AM Coordinated Universal Time

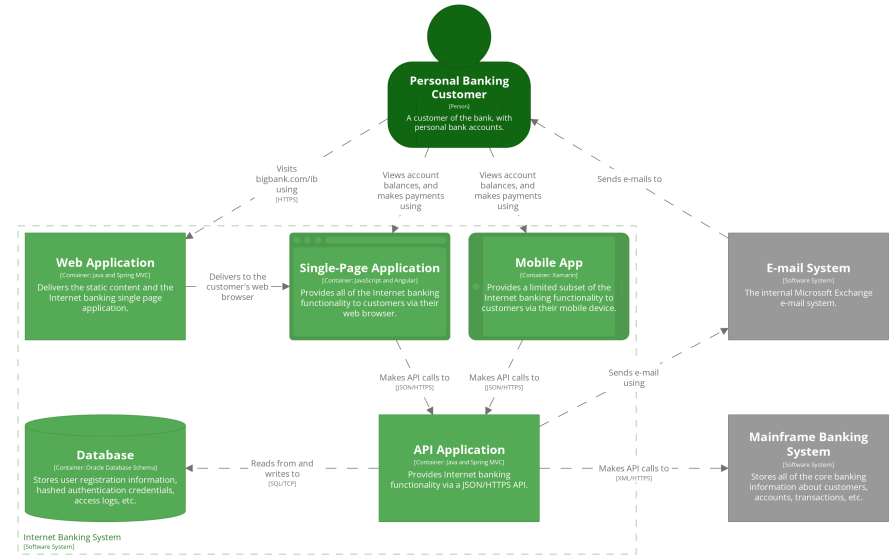
How

Level 2: A Container diagram

Zoom into the software system in scope, showing the high-level technical building blocks.

Intended audience:

Technical people inside and outside of the software development team; Including software architects, developer and operations/support staff.



[Container] Internet Banking System

The container diagram for the Internet Banking System - diagram created with Structurizr.
Wednesday, March 22, 2023 at 8:16 AM Coordinated Universal Time

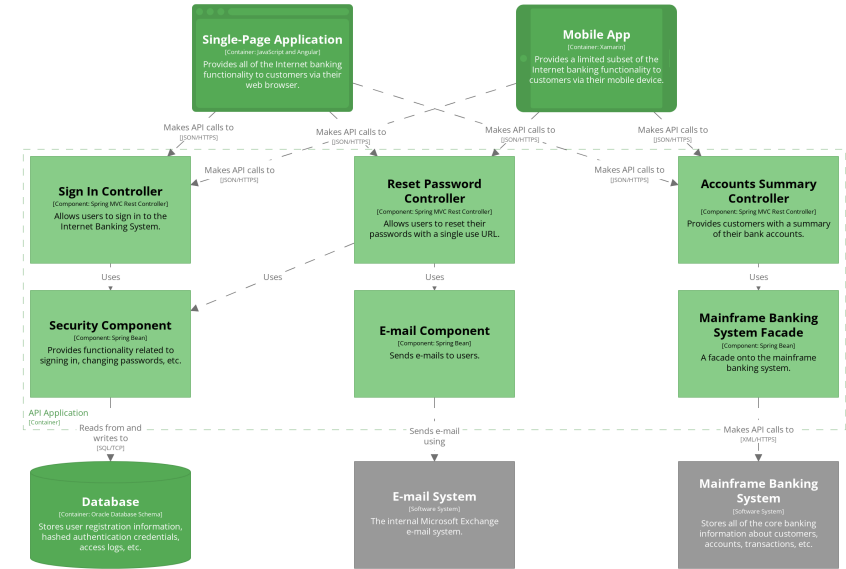
How

Level 3: A Component diagram

Zoom into an individual container, showing the components inside it.

Intended audience:

Software architects and developers.



[Component] Internet Banking System - API Application

The component diagram for the API Application - diagram created with Structurizr.
Wednesday, March 22, 2023 at 8:16 AM Coordinated Universal Time

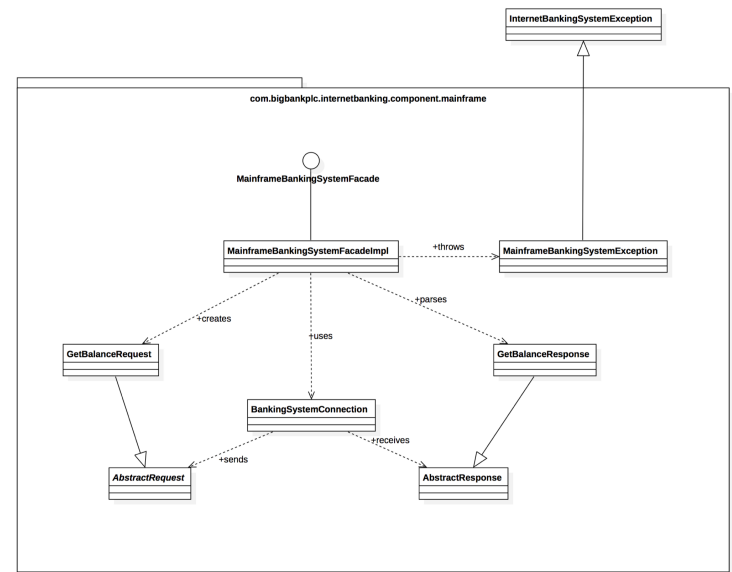
How

Level 4: A Code diagram

Can be used to zoom into an individual component, showing how that component is implemented.

Intended audience:

Software architects and developers.



When

When to use C4 Model

- Up-front design in inception
- Retro/introduce existing project
- Onboarding new staff

Practice

Please introduce us your former project in 5 mins?

Q & A

Thank you!