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WWISA

WORLDWIDE INSTITUTE OF SOFTWARE ARCHITECTS

WWISA Overview

Bringing Clarity to Architecture

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Overview

- Mission
- Founders and Advisory Board of Directors
- Membership
- Services and Information
- Global Presence
- Wellington Chapter

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Mission

The Institute of Software Architects, Inc. is a nonprofit corporation founded to:

- accelerate the establishment of the profession of software architecture
- provide information and services to software architects and their clients.

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Founders and Advisory Board of Directors

- Grady Booch
  Chief Scientist, Rational Software Corporation
- Peter J. Denning, Ph.D.
  Professor of Computer Science,George Mason University
- R. Jordan Kreinder, Ph.D.
  Vice President, IBM Consulting Group
- L. Thomas Love, Ph.D.
  President, Shoulders Corporation
- Thomas J. Mowbray, Ph.D.
  Chief Scientist, Blueprint Technologies
- Terry Winograd, Ph.D.
  Professor of Computer Science, Stanford University
- Marc T. Sewell
  Vice President, Simon Labs Software Architects

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Members from Following Organisations

IBM
Microsoft
EDS
hp invent
Sun microsystems
DELL
accenture
Sabre
UNISYS
shi.com
BOEING
ArchWise LLC
NatureSoft eSolution Provider
Siebel eBusiness
SimonLabs SOFTWARE ARCHITECTS
SHOULDERSCORP THE STRENGTH OF eBUSINESS SOLUTIONS
TopQuadrant
THINKING OBJECTS, Inc.
SAUNTI a software architecture firm
genfiniti eWerX
IBEX ONE
iCMG Component Management Group
Cambridge Technology Partners
SYMMETRY COMPUTING, INC.
iXL

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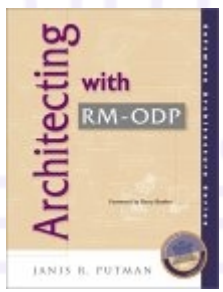
Services and Information

- More than 1700 members in 54 different countries
- WWISA-supported book series on Software Architecture
- Six main stream discussion groups with committee chairs
- Strong connections with national and international standards bodies such as IEEE and ISO/ITU



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Global Presence

Europe

United Kingdom – London
Greece – Mykonos
Belgium – Brussels
France – Paris
United Kingdom – Central Scotland
Switzerland - Zurich

Canada

Toronto
Calgary

Africa

South Africa – Cape Town

USA

New York
Cleveland
Atlanta
Central Florida
San Antonio
Rochester
Cincinnati
Charlotte
Sillicon Valley
Boston
San Diego
Sacramento
Austin
Chicago
Orange County
Northern Virginia
Dallas
Idaho Falls

Asia/Pacific

Australia - Sydney
New Zealand – Wellington
India – Bangalore
China - Beijing

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Wellington Chapter

- Established April 1999
- Commenced bi-monthly meetings in January 2000. Topics this year include:
  - Enterprise architecture and RM-ODP
  - Solution architecture patterns
  - IT architecture certification
  - The architect: artist, technician or manager?
  - Visual architecting process
  - Extreme programming and software architecture
- Regular “Update” email newsletter
- Hosts New Zealand mailing list (currently over 100 people)
- Hosts New Zealand website (http://www.wwisa.org.nz)

Wellington Chapter (cont)

- Arranged New Zealand sponsorship
  - Equinox
  - Software Education
  - Rational New Zealand
- Promoted Dana Bredemeyer's first "Software Architecture Workshop" in New Zealand
  - Next workshop scheduled for:
    - Auckland
    - Monday 17 March 2003 – Thursday 20 March 2003
  - Check out Bredemeyer Consulting website for more details (http://www.bredemeyer.com)

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Software Architecture – Defining a Profession and the Role of Certification

Bringing Clarity to Architecture

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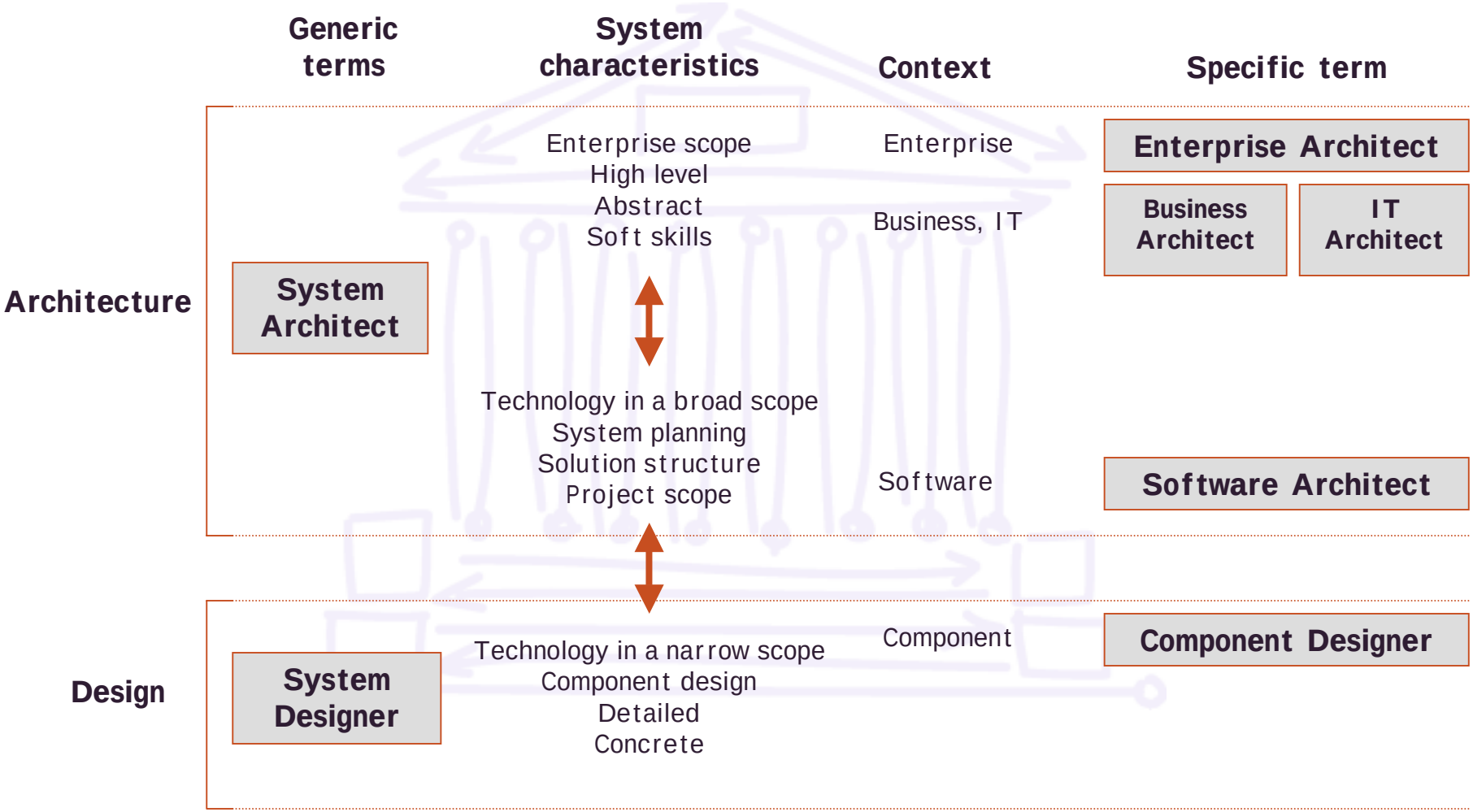
Overview

- Terminology
- What is Software Architecture?
- What is Delivered?
- The Software Architect
- Some Problems
- The Role of Certification
- Attributes of a Certification Programme
- Possible Certification Levels

Terminology



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What is Software Architecture?

According to the Rational Unified Process (RUP):

- Software architecture encompasses:
  - the significant decisions about the organization of a software system
  - the selection of the structural elements and their interfaces by which the system is composed together with their behavior as specified in the collaboration among those elements
  - the composition of the structural and behavioral elements into progressively larger subsystems
  - the architectural style that guides this organization, these elements and their interfaces, their collaborations, and their composition
- Software architecture is not only concerned with structure and behavior, but also with usage, functionality, performance, resilience, reuse, comprehensibility, economic and technology constraints and tradeoffs, and aesthetic concerns.

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What is Software Architecture? (cont)

- **Software Architecture is:**
  - The high-level structure of a software system which comprises software components, the externally-visible properties of those components and the relationships among them.
  - "The technical implementation of business strategy"
  - What a Software Architect produces!
- **Software Architecture is not:**
  - Low-level design of component internals and algorithms
  - The architecture of the physical system (processors, networks etc)

(Although these are considerations)

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What is Delivered?

- A good architecture helps to avoid the delivery of individual solutions each with their own mix of technical and commercial issues
  - "Holistic" vs. "piecemeal"
  - Direction for the redevelopment of existing systems
  - Benchmark for the delivery of new systems
  - Maximises value
    - Improve productivity
    - Reduce duplication
  - Ensures a common vision

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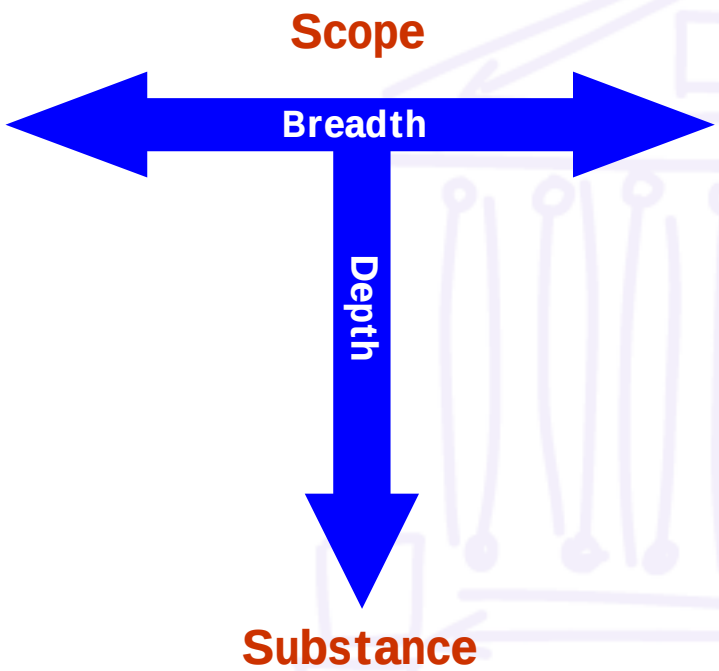
The Software Architect



- **A good architect must have:**
  - A combination of both breadth and depth:
    - Technical (developers)
    - Commercial (stakeholders)
  - Experience across the lifecycle
  - Strong “people” skills (leadership, team player, interpersonal communications etc)

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Some Problems

- **For clients/customers:**
  - Ambiguity as to what an architect is in an IT context
  - Unsure what to expect from an architect
  - Business value of an architect not clearly articulated
  - Unable to ensure that the architect is competent for the role
  - Recognised evidence of professional capability not available
- **For software and enterprise architects:**
  - Where can I get a “mark of excellence” to improve my marketability?
  - How can I improve my value to a client/customer?
  - How do I become a better architect?
  - How do I keep myself up-to-date with architectural practices?
- **For educational institutes:**
  - Lack of direction as to what to teach

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The Role of Certification

- **Introduces credibility**
  - Assurance of a body of knowledge
  - Ongoing requirement for professional development
- **Removes ambiguity**
  - Clearly defines roles and responsibilities
  - Defines professional behaviour
- **Broad-based industry support**
  - Assurance that industry will listen and begin to require certified architects

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Attributes of a Certification Programme

- Provides high value for clients
- Certification available worldwide
- Vendor independent certification
- High industry recognition
- Covers business as well as supporting IT systems
- Mark of excellence within the profession
- Certification covers knowledge, experience, and skills
- Re-certification every “x” years
- Not focussed on technology “flavour of the month”

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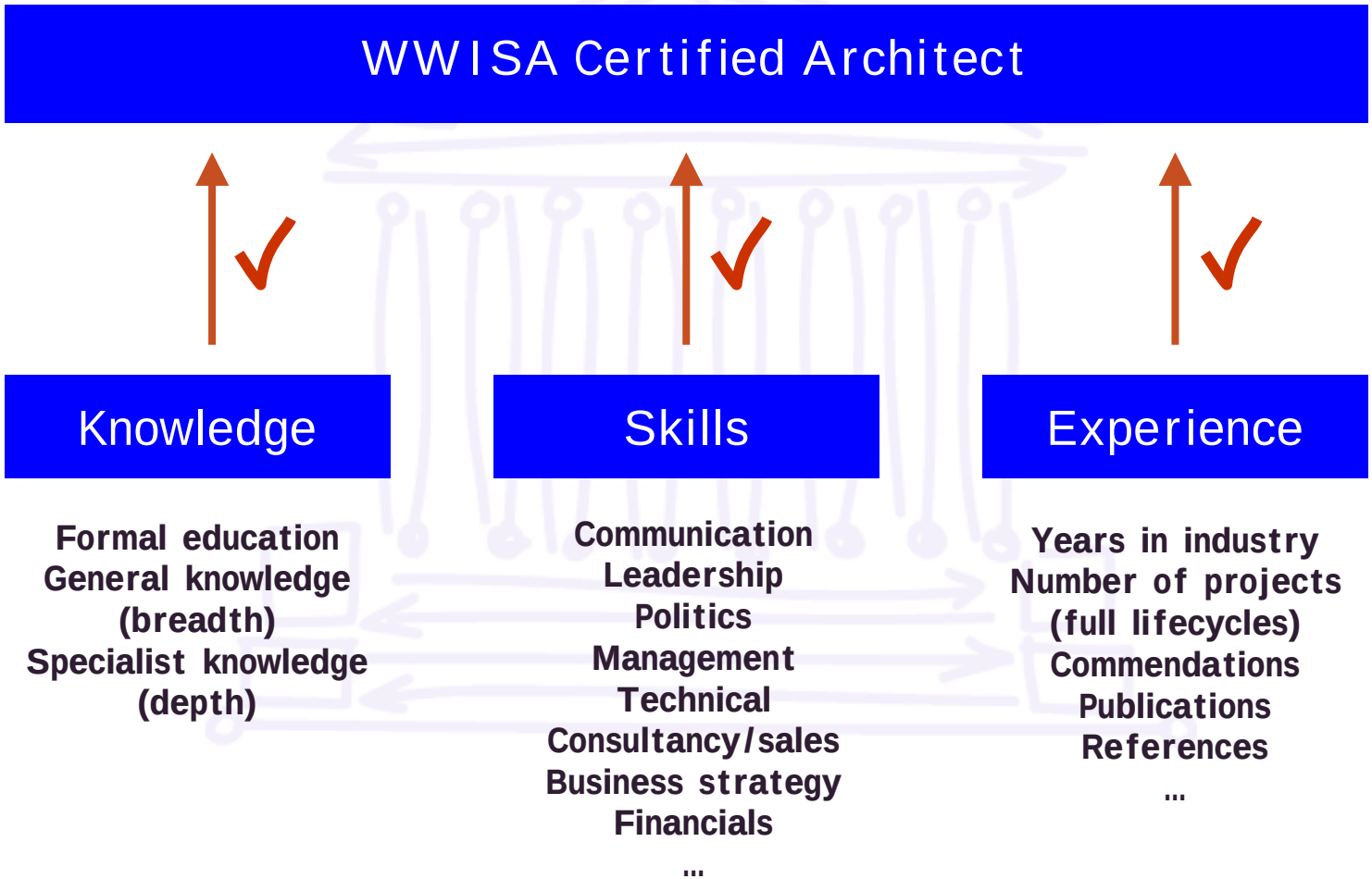
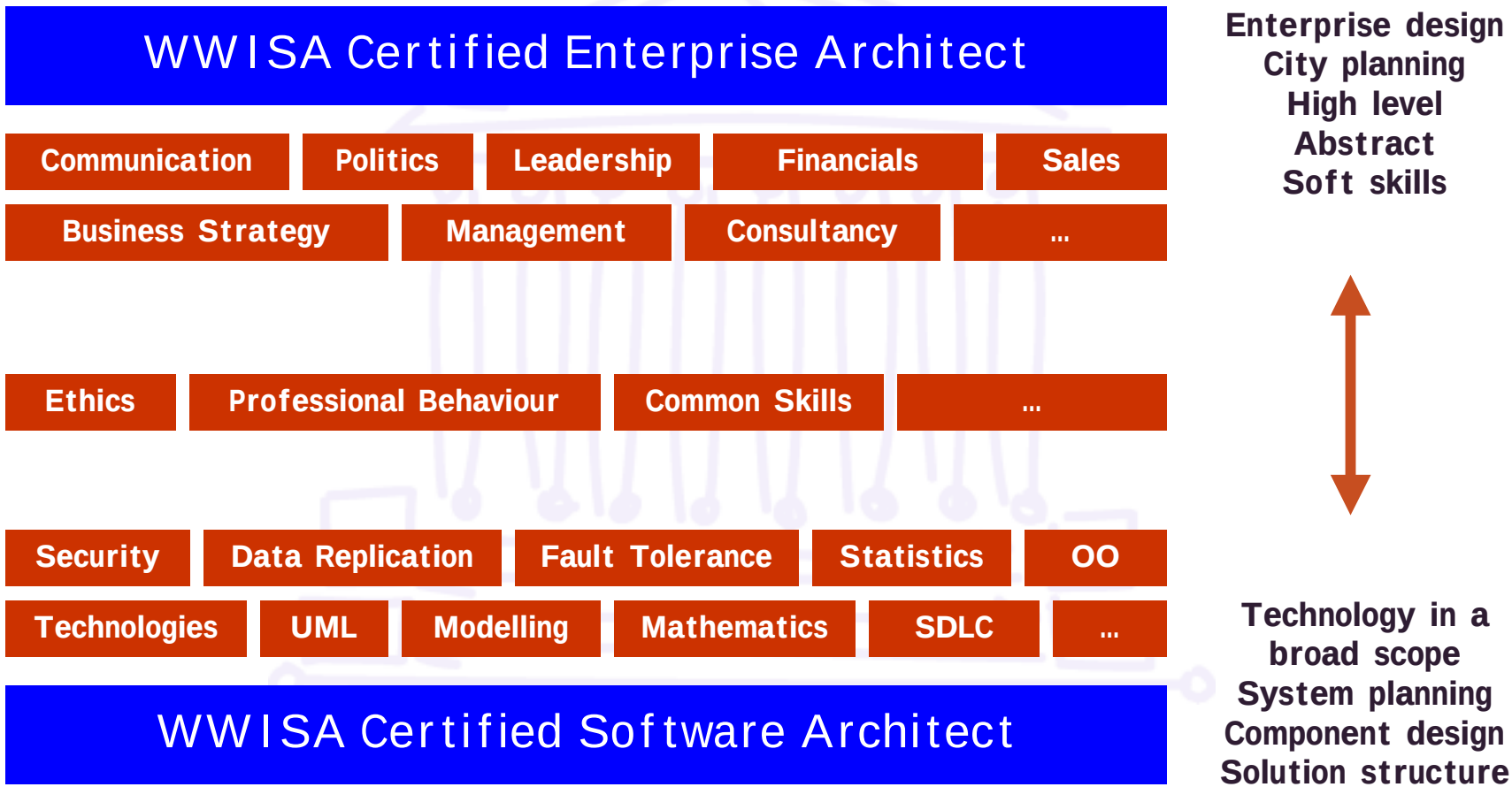
What Needs to be Assessed?



Certification Levels



Enterprise design
City planning
High level
Abstract
Soft skills

Technology in a broad scope
System planning
Component design
Solution structure

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