Spring is bootiful

but so is your domain

INNOQ

MICHAEL PLÖD

FELLOW

Check in to the talk on your phone and answer the following question: Why did you become a software engineer?

Because it makes a lot of fun

Money

To finance my lavish lifestyle

Improving people's lives

Because I love develop new thing.

I like to wipe my tears with benjamins

Lovin'the code

To build things I would see only in the future

I don't like manual labour

I didn't know what I was doing

Because I can!

Interest in computers/software

Because it's fun

I like ruining my eyes every day

Creative work

School teacher said he hated it and then explained what it meant. It sounded like I'd love it

Father told me that I will make a lot of money.

Test

It sounded cool

I wanted to create videogames

Not creative enough for design 🤡

It was the most fun I could have while sitting down and still get paid!

To continually challenge myself throughout my career

Create stuff other people use on a daily bases

Interested in many things (including tech), I figured back in 1997 that IT will be used everywhere, opening doors to all kind of fields, and it really did!

Better than economics

Loved coding

Best way to get a EU job visa with only an undergrad degree

To contribute to a product that can have a positive impact on the world whilst solving challenging technical problems

The big money :D

As a child I loved computers

I like solving problems

Is fun

I didn't know what to study.

You have to choose something right

Interest in solving problems with Logic

Pure randomness, but luckily I found my path

Because its easy

Math made sense and so did software engineering.

To program the machines!

Creativity

I was always drown to computers and than I found out I can talk to them through software

..

For the money

I love solving problems in general. Plus we create a lot to solve later, too :)

Money and creativity

Parents forced me

I like solving problems.

Because its awesome, passion and pays well 🤘

Because my mom wanted me to be a linguist.

Needed a surefire way to make a living, and always had a knack for computers

Money

To earn more but it Turner out sooooogreat

I love to solve problems

Interest

I like solving problems.

Love programming

As kid i liked to build paper models what was mostly about following instructions how to build it. Then i came to computer and found that i can write these instructions to build a model and that got me hooked :)

I like to tinker around and solve problems.

I love digging deep into how stuff works.

🖐 67

Check in to the talk on your phone and answer the following question:
Why did you become a software engineer?

Gaming

Entertainment, fun, math and ❤️

The Community

My father got me interested in programming when I was in 6/7th grade and I always found it fascinating. Also it's a varied field with a lot of options for the future.

I got a offer for this job 10 years ago and I got to love it.

Because is an amazing feeling see your code working

Because, I could not became space man, is my second opcion.

✋ 67

Michael Plöd

Fellow at INNOQ

Mastodon (or Twitter): @bitboss@mastodon.social

LinkedIn: https://www.linkedin.com/in/michael-ploed/

Current consulting topics:

- Domain-Driven Design

- Team Topologies

- Transformation from IT Delivery to digital product orgs

Regular speaker at (inter-)national conferences and author of a book + various articles

Spring is bootiful

But SORRY!

This is the last time I'll mention Spring
in this talk

... not sorry ;-)

Let me motivate you for
your domain and some business stuff

Don't be afraid: I don't want to turn you into a business suit

Instead I think that business and domain knowledge will make you a more valuable developer

Photo by Jon Tyson on Unsplash

Your value will increase

VALUE

You write better code which is more maintainable

Your value will increase

VALUE

You will make better modularization decisions

You write better code which is more maintainable

Your value will increase

VALUE →

You will communicate better and therefore be heard more

You will make better modularization decisions

You write better code which is more maintainable

Your value will increase

VALUE

You can make a significant impact on the product design

You will communicate better and therefore be heard more

You will make better modularization decisions

You write better code which is more maintainable

Let's approach this bottom-up

VALUE ↑

You can make a significant impact on the product design

You will communicate better and therefore be heard more

You will make better modularization decisions

You write better code which is more maintainable

Innovation Cycles

Market

Look for signals from

Teams

Innovation Cycles

Market

Expects

Look for signals from

Great User
Experience

Teams

Innovation Cycles

Market

Expects

Look for signals from

Great User
Experience

Teams

Is enabled by

Is developed by

Software

„the key to incremental architecture is to build on a framework that can accommodate change… that framework is the domain…. By modeling the domain, you can more easily handle changes to the domain"

Allen Holub

https://holub.com

Innovation Cycles

Market

Expects

Look for signals from

Great User Experience

Teams

Is enabled by

Is developed by

Software Architecture

13

We can drive this even further

THE SCIENCE OF DEVOPS

ACCELERATE

Building and Scaling High Performing
Technology Organizations

Nicole Forsgren, PhD
Jez Humble *and* **Gene Kim**

"A loosely coupled software architecture and org structure to match" is a key predictor of:

- Continuous Delivery Performance
- Ability to scale organization and increase performance linearly

Innovation Cycles

Market

Expects

Look for signals from

Great User Experience

Business Domain

Teams

Should be a model of

Is enabled by

Is developed by

Software

16

Innovation Cycles

Market

Expects

Look for signals from

Great User Experience

Business Domain

Teams

Should be a model of

Should be aligned with

Is enabled by

Software

Is developed by

16

What goes into production

84.94%

6.63%

8.43%

The knowledge and experience
of business folks

The content of specifications

The assumptions about the
domain of developers

166

Let me tell you a story

Michael as a young developer for a mortgage loan scoring engine

I had a great and thorough specification

The starting point

Credit Agency

Credit Term Result Recieved

Pre Scoring performed red

Application Submitted

Account Balance Received

Pre Scoring performed green

Core Banking System

Let's look at the business rules

Existing customers with an amount of cash of more than 10.000 EUR on accounts of the Pug Bank will be preferred per person with more points (+ 5 points).

Customers with equity ratio of 15 - 20 percent get 5 points, customers with equity ratio > 20 percent get 10 points and customers with > 30 percent get 15 points

> 3 warnings in the credit agency response are a nogo criteria

Total amount of loans > collateral value is a nogo criteria

Probability of repayment from credit agency query = points

Is the market value of the property in the average range that gives 10 points

< 120 points: red

A negative remark in the result of the credit agency query is a nogo criteria

Applicants from Munich and Hamburg will be preferred with more points (+ 5 points)

Probability of repayment from credit agency query < 60 is a nogo criteria

>= 120 points: green

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

Total amount of loans + sum of own funds != Sum of (purchase) costs is a nogo criteria

One nogo-criteria present: red (independent of amount of points)

Total monthly loan payments > monthly earning capacity - monthly expenses is a nogo criteria

The rules in the bigger picture

Credit Agency — Credit Term Result Recieved

Application Submitted — **Start Pre Scoring**

Core Banking System — Account Balance Received

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< 120 points: red

>= 120 points: green

Pre Scoring performed red

Pre Scoring performed green

The specification implied the following structure

Points

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

Probability of repayment from credit agency query = points

Customers with equity ratio of 15 - 20 percent get 5 points, customers with equity ratio > 20 percent get 10 points and customers with > 30 percent get 15 points

Applicants from Munich and Hamburg will be preferred with more points (+ 5 points)

Is the market value of the property in the average range that gives 10 points

Existing customers with an amount of cash of more than 10.000 EUR on accounts of the Pug Bank will be preferred per person with more points (+ 5 points).

No Go Criteria

A negative remark in the result of the credit agency query is a nogo criteria

Total monthly loan payments > monthly earning capacity - monthly expenses is a nogo criteria

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Total amount of loans > collateral value is a nogo criteria

Scoring Result

One nogo-criteria present: red (independent of amount of points)

< 120 points: red

>= 120 points: green

So I built my scoring engine according to that structure which I assumed in my head which roughly looked like this

Points

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

Probability of repayment from credit agency query = points

Applicants from Munich and Hamburg will be preferred with more points (+ 5 points)

Is the market value of the property in the average range that gives 10 points

No Go Criteria

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Probability of repayment from credit agency query < 60 is a nogo criteria

Total amount of loans > collateral value is a nogo criteria

Scoring Result

< 120 points: red

>= 120 points: green

One nogo-criteria present: red (independent of amount of points).

Point can only be validated when every clusters result is present

<BC> Application Entry — Application submitted — Pre Scoring start

Credit Term Request — Credit Agency — Recieved CreditTerm request result — Handle Agency Response — Initialize by Application / Repayment Probability

retrieve Account balance — Core Banking System — Account Balance determined — Handle Account Balance — add amount of Cash on accounts

Add Real Estate Rating

Points Calculated — Update Scoring Result with Points

Add points — Add No Go Criteria

Pre Scoring green — Pre Scoring red

<BC> Real Estate Rating — Collateral Value calculated — Marker Value comparison created — Handle Real Estate Rating

Initialize by Application — Add Real Estate Rating

No Go Criteria determined — Update Scoring Result with No Go Criteria

The acceptance test and a change in communication

I developed a bad gut feeling but go-live was fine, just two minor bugs.

But then came a new requirement...

We want to see if a red scoring can become green with more own funds

if yes: how much more money do the applicants need?

Michael: „this affects nearly everything"

Points

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

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Scoring Result

One nogo-criteria present: red (independent of amount of points)

< 120 points: red

>= 120 points: green

Risk Management: „no, it's only in one part"

The risk managers started to think that I do my surname justice

(just replace the P in Plöd by a B)

They had a different mental model

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Applicant Rule Cluster

Existing customers with an amount of cash of more than 10.000 EUR on accounts of the Pug Bank will be preferred per person with more points (+ 5 points)

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Monthly Cash Flow Rule Cluster

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

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Real Estate Financing Rule Cluster

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>= 120 points: green

Everyone was right, from their perspective

Points

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< 120 points: red

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I refactored my code to their mental model and the new requirement was suddenly very easy to implement

Start Pre Scoring flow diagram

- Application Submitted → Start Pre Scoring

Credit Agency branch:
- Send Credit Term Request → Credit Agency → Credit Term result Recieved → Handle Credit Term Result

Credit Agency Rule Cluster
- Calculate Result
- Probability of repayment from credit agency query = points
- A negative remark in the result of the credit agency query is a nogo criteria
- Probability of repayment from credit agency query < 60 is a nogo criteria
- > 3 warnings in the credit agency response are a nogo criteria
- Cluster scored

Core Banking System branch:
- Obtain Account Balances → Core Banking System
  - Account Balance Received → Handle Account Balance
  - Timeout Recieved
  - Voluntaineere Mode detecte
- Old Customer Policy (>5 years) — 20k EUR
- Newish Customer Policy (<=5 years) — 0 EUR

Applicant Rule Cluster
- add account balance
- Existing customers with an amount of more than 10,000 EUR on account at the institution will be preferred per person with more points (+ 5 points)
- Applicants from Munich and Hamburg will be preferred with more points (+ 5 points)
- Initialize based on application
- Cluster scored

Monthly Cash Flow Rule Cluster
- Calculate Result
- A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points
- Total monthly loan payments > monthly earning capacity - monthly expenses is a nogo criteria
- Cluster scored

Real Estate Financing Rule Cluster
- Initialize based on application
- Total amount of loans > collateral value is a nogo criteria
- Debt-come with equity ratio of 15-20 percent gets 5 points, customers with collateral or 20 percent gets points and customers with 30 percent get 15 points
- Total amount of loans > sum of own funds (= sum of (purchase) costs is a nogo criteria
- Is the market value of the property in the average range that gives 10 points
- Cluster scored

Scoring Result
- add agency results score
- applicant score
- add monthly cash flow score
- add real estate financing score
- One nogo-criteria present: red (independent of amount of points)
- < 120 points: red
- >= 120 points: green
- when all cluster results are available we can evaluate towards green
- Pre Scoring performed red
- Pre Scoring performed green

Key Learnings

It is essential that you understand the mental model which is in the heads of the business folks.

Their requirements and assumptions stem from this mental model.

Implement the structures in your domain logic code according to this shared understanding.

Try to reduce the amount of implicit assumptions in your head as much as possible.

„It is not the domain experts knowledge that goes into production, it is the assumption of the developers that goes into production"

Alberto Brandolini

Inventor of EventStorming

Use collaborative modeling methods

Design Level EventStorming

Starting point

Chaotic Exploration on business rules

Credit Agency — Credit Term Result Recieved

Application Submitted — **Start Pre Scoring**

Core Banking System — Account Balance Received

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< 120 points: red

>= 120 points: green

Pre Scoring performed red

Pre Scoring performed green

You can already start to write tests!

Credit Agency — Credit Term Result Recieved

Application Submitted — **Start Pre Scoring**

Core Banking System — Account Balance Received

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One nogo-criteria present: red (independent of amount of points)

< 120 points: red

>= 120 points: green

Pre Scoring performed red

Pre Scoring performed green

Which grouping of the rules is the right one?

Points

A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points.

Customers with equity ratio of 15-20 percent get 5 points, customers with equity ratio > 20 percent get 10 points and customers with > 30 percent get 15 points

Is the market value of the property in the average range that gives 10 points

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Let's approach this bottom-up

VALUE →

You can make a significant impact on the product design

You will communicate better and therefore be heard more

You will make better modularization decisions

You write better code which is more maintainable

We already talked about modularization
on a lower level...

Start Pre Scoring — Application Submitted

Credit Agency
- Send Credit Term Request
- Credit Term Result Recieved

Handle Credit Term Result

Credit Agency Rule Cluster
- Calculate Result
- Probability of repayment from credit agency query = points
- A negative remark in the result of the credit agency query is a nogo criteria
- Probability of repayment from credit agency query < 60 is a nogo criteria
- > 3 warnings in the credit agency response are a nogo criteria
- Cluster scored

Core Banking System
- Obtain Account Balances
- Account Balance Received
- Timeout Recieved
- Maintenance Mode detected

Handle Account Balance

- Old Customer Policy (>5 years) — 20k EUR
- Newish Customer Policy (<=5 years) — 0 EUR
- add account balance
- Initialize based on application

Applicant Rule Cluster
- Existing customers with an amount of over more than 10,000 EUR on accounts of the highest will be preferred per person with more points (+5 points)
- Applicants from Munich and Hamburg will be preferred with more points (+5 points)
- Cluster scored

Monthly Cash Flow Rule Cluster
- Calculate Result
- A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points
- total monthly loan payments > monthly earning capacity - monthly expenses is a nogo criteria
- Cluster scored

Real Estate Financing Rule Cluster
- Initialize based on application
- Total amount of loans > collateral value is a nogo criteria
- Customers with equity ratio of 15-20 percent get higher scores, customers with over more as 20 percent can only possess with incomes with 10 percent get a score
- Total amount of loans = sum of own funds != Sum of (purchase) costs is a nogo criteria
- Is the market value of the property in the average range that gives 10 points
- Cluster scored

Scoring Result
- add agency result score
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- Cluster scored

Send Credit Term Request — Credit Agency — Credit Term Result Recieved — Handle Credit Term Result

Obtain Account Balances — Core Banking System — Account Balance Received — Handle Account Balance

Timeout Recieved

Maintainance Mode detected

Old Customer Policy (>5 years) — 20k EUR

Newish Customer Policy (<=5 years) — 0 EUR

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- add account balance
- Existing customers with an amount of more than 10.000 Euro on accounts at the institute will be preferred per person with more points (+5 points)
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Application Submitted — Start Pre Scoring

Monthly Cash Flow Rule Cluster

- Calculate Result
- A monthly budget surplus with future repayments of > 1,500 EUR gives 10 points
- Total monthly loan payments > monthly earning capacity - monthly expenses is a nogo criteria
- Cluster scored

Real Estate Financing Rule Cluster

- Initialize based on application
- Total amount of loans > collateral value is a nogo criteria
- Debt service to equity ratio of 15-30 percent gives 4 points, customers with a ratio of less than 15 percent get 10 points, customers with a 30 percent get 4 points
- Total amount of loans = sum of own funds (= sum of (purchase) costs is a nogo criteria
- Is the market value of the property in the average range that gives 10 points
- Cluster scored

Scoring Result

- add agency results score
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Modularization on a higher level

There are many choices to group domain concepts

There are many choices to group domain concepts

All models are wrong, some are useful

George Box

To which degree do you understand the following parts of the business model of your application?

Not at all

I fully understand it

1

7

Customer Segments

Value Proposition

Channels (like online, mobile,...

Cost Structure and Revenue Stream

2.9

4.1

4.3

194

The Business Model Canvas

Designed for:

Designed by:

Date:

Version:

Key Partners

Who are our Key Partners?
Who are our key suppliers?
Which Key Resources are we acquiring from partners?
Which Key Activities do partners perform?

MOTIVATIONS FOR PARTNERSHIPS
Optimization and economy
Reduction of risk and uncertainty
Acquisition of particular resources and activities

Key Activities

What Key Activities do our Value Propositions require?
Our Distribution Channels?
Customer Relationships?
Revenue streams?

CATEGORIES
Production
Problem Solving
Platform/Network

Key Resources

What Key Resources do our Value Propositions require?
Our Distribution Channels? Customer Relationships?
Revenue Streams?

TYPES OF RESOURCES
Physical
Intellectual (brand patents, copyrights, data)
Human
Financial

Value Propositions

What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each Customer Segment?
Which customer needs are we satisfying?

CHARACTERISTICS
Newness
Performance
Customization
"Getting the Job Done"
Design
Brand/Status
Price
Cost Reduction
Risk Reduction
Accessibility
Convenience/Usability

Customer Relationships

What type of relationship does each of our Customer Segments expect us to establish and maintain with them?
Which ones have we established?
How are they integrated with the rest of our business model?
How costly are they?

EXAMPLES
Personal assistance
Dedicated Personal Assistance
Self Service
Automated Services
Communities
Co-creation

Channels

Through which Channels do our Customer Segments want to be reached?
How are we reaching them now?
How are our Channels integrated?
Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

CHANNEL PHASES
1. Awareness
   How do we raise awareness about our company's products and services?
2. Evaluation
   How do we help customers evaluate our organization's Value Proposition?
3. Purchase
   How do we allow customers to purchase specific products and services?
4. Delivery
   How do we deliver a Value Proposition to customers?
5. After sales
   How do we provide post-purchase customer support?

Customer Segments

For whom are we creating value?
Who are our most important customers?

Mass Market
Niche Market
Segmented
Diversified
Multi-sided Platform

Cost Structure

What are the most important costs inherent in our business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

IS YOUR BUSINESS MORE
Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing)
Value Driven (focused on value creation, premium value proposition)

SAMPLE CHARACTERISTICS
Fixed Costs (salaries, rents, utilities)
Variable costs
Economies of scale
Economies of scope

Revenue Streams

For what value are our customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

TYPES
Asset sale
Usage fee
Subscription Fees
Lending/Renting/Leasing
Licensing
Brokerage fees
Advertising

FIXED PRICING
List Price
Product feature dependent
Customer segment dependent
Volume dependent

DYNAMIC PRICING
Negotiation (bargaining)
Yield Management
Real-time-Market

Strategyzer

strategyzer.com

Escaping the Build Trap: How Effective Product Management Creates Real Value — Melissa Perri (O'Reilly)

„When companies do not understand their customers' or users' problems well, they cannot possibly define value for them. Instead of doing the work to learn this information about customers, they create a proxy that is easy to measure. ‚Value' becomes the quantity of features that are delivered, and, as a result, the number of features shipped becomes the primary metric of success."

To which degree do you agree with the following sentence

There are modularization options that work for or against a value proposition

I don't agree at all

I fully agree

1

5.3

7

✋ 182

How can we come up with proper boundaries for modules (be it in monoliths or microservices) when we don't know or understand the value proposition?

Ask these questions

- What value do we deliver to the customer?

- Which one of our customer's problems are we helping to solve?

- Which job are we helping the customer get done?

- Which customer needs are we satisfying?

- What bundles of products and services are we offering to each Customer Segment?

Types of value propositions

- Newness

- Performance

- Customization

- „Getting the job done"

- Design

- Usability

- Brand / Status

- Price

- Cost Reduction

- Risk Reduction

- Accessibility

- Convenience

Source: https://www.strategyzer.com/business-model-canvas/value-propositions

Book hints

Check out DDD-CREW on GitHub

https://github.com/ddd-crew

Domain-Driven Design starter modeling process

A starter process for beginners, not a rigid best-practice.
DDD is continuous, evolutionary and iterative design.

Align
Business model and user needs

Discover
The domain visually & collaboratively

Decompose
The domain into sub-domains

Strategize
Business differentiating core-domains

Connect
Sub domains to form a loosely coupled architecture

Organize
Teams around bounded contexts

Define
Roles & responsibilities for bounded contexts

Code
Your bounded context with tactical patterns

https://github.com/ddd-crew/ddd-starter-modelling-process

Bounded Context Design Canvas

The canvas guides you through the process of designing a bounded context by requiring you to consider and make choices about the key elements of its design, from naming to responsibilities, to its public interface and dependencies.

Name: Scoring

Purpose

Provide a fully automated, highly trustable and reliable assessment of the approvability of a credit application for retail mortgage loans.

Strategic Classification

Domain	Business Model	Evolution
core	compliance	custom built

Domain Roles

Role Types

execution context

- other

Inbound Communication

Collaborator   **Messages**

- Application Entry → Application submitted
- Document Check → Application marked as checked
- Real Estate Rating → Real Estate ratios calculated

Ubiquitous Language
Context-specific domain terminology

Rule Cluster
Grouping of scoring rules (ko criteria & point based) into clusters that can be independently scored

Scoring Result
the scoring result is either green or red

Business Decisions
Key business rules, policies, and decisions

- KO Criteria
- Point Based Rules
- Scoring Result:
  1 KO Criteria: red
  >= 120 points and no KO: green

Outbound Communication

Messages   **Collaborator**

- Pre Scoring Green
- Pre Scoring Red
- Main Scoring Green / Main Scoring Red → Credit Decision
- Document Check
- Credit Decision
- Retrieve Account Balance → Core Banking System
- Determine creditworthiness of applicant → Credit Agency

Assumptions

- Pre- and Main Scoring will run on the same rules for the forseeable future
- We will only work with one credit-agency
- There will be a high stability in the area of real estate ratios

Verification Metrics

- 95% of changes will affect both pre- and main scoring and 90% only on rule cluster at a time.
- 75% of changes to the application form will have no impact on Scoring

Open Questions

Should there be a score color "yellow" for errors?

Let's approach this bottom-up

VALUE ↑

You can make a significant impact on the product design

You will communicate better and therefore be heard more

You will make better modularization decisions

You write better code which is more maintainable

How the business names things

How the business names things

What we see in code

Window — TransparencyFactory

Painting — DecoratorImpl

TV — EntertainmentProviderSingleton

Desk — WorkEnablementDevice

RollableStuffContainer

Trolley

RestProvider

Chair

EMPATHY

Food for thought

Michael Plöd • Sie
Fellow at INNOQ
2 Wochen • 🌐

I see many job postings in which companies are looking for solution-oriented architects / developers.

It may sound absurd but I'd rather look for problem-oriented ones: folks who try to understand the problem first and not those who jump head-first into solutions lacking the understanding of the actual problem to solve.

👍🤝💗 173   23 Kommentare • 3 direkt geteilte Beiträge

O'REILLY®

The **Software** **Architect** Elevator

Redefining the Architect's Role

in the Digital Enterprise

Gregor Hohpe

https://architectelevator.com/

Modern architects **align organization and technology**, reduce friction, and chart transformation journeys. In addition to working with UML and architecture styles, such architects ride the Architect Elevator from the penthouse, where the **business strategy** is set, to the engine room, where the enabling technologies are **implemented**. They shun popular buzzwords in favor of a **clear strategy defined by conscious decision making**.

Gregor Hohpe

Author of „The Software Architect Elevator"

Let's approach this bottom-up

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Shift from Projects to Products

Tech-enabled Organizations

- Tech is core strategic asset in product and not a cost center

- No feature factories

- Strong aim to insourcing of development of functionality which is core to the business

Product Thinking 101 by Naren Katakam https://uxplanet.org/product-thinking-101-1d71a0784f60

„Product thinking is the journey from the problem space of the users to the solution space of the business.

The goal of this journey is to reduce the gap between users and the business."

Naren Katakam

"If you're just using your engineers to code, you're only getting about half their value."

Marty Cagan

Source of Best Product and Feature Ideas

Source	
Direct customer feedback	60%
Team brainstorming	57%
Market research	34%
Competitor products	28%
Sales team	18%
Executive orders	13%
Crowdsourcing tools and/or company idea submissions forms	7%
External consultants	4%
Other	2%

What is digitalization?

robot · efficiency and effectivit · simplifying things · not germany · give value with tech · transformation · going paperless · hey mum

catch-all term for tech · progress · be ready for the change · no idea · accelerating business

solve needs with it · less humans · merging business and tech · bring workflows into apps

no manual woek · automatise · automatization · improvement · simplify · chat gpt 4 · renovation · modelling · involve less humans

coversion of data · modernisation · get rid of fax in germany · chat gpt · bpm · help · less paper · simplification · wtf · online processes

convenience · among us · from paper to digital · buzzword · no physical contact · scanning · making phisycal into ethe

ideas to technology · self-service · no db · automation · paperless · modern · accessibility · efficiency · paper-less · no papers

less paper work · 404 not found · transformation to digital · fast · jira · unknown · moving more online

process automation · enabling manual processes · making lives easier · a hope · getting rid of fax · go online · process · no paper · processes algorithmizatio

save paper · bitcoin · ai · changing a manual · replace excel sheets

work everywhere · automating processes · future · a big void · ease · springio · getting rid of paper

make more efficient · digital · a nice word · get rid of paperwork · remote usability · headache

replace excel · optimise process · very hard to explain · move to cloud · convert papers to 0 and 1 · using tech to assist ppl

migration · automatize processes · you can get new customers · technology

take physical documents o · continuous learning

put the paper in the comp

128

What is the
purpose of digitalization
from a business perspective

Purposes of digitalization

Digitalization

Purposes of digitalization

Digitalization

Improve an existing business model with tech

Purposes of digitalization

Digitalization

Improve an existing business model with tech

Create a whole new business (model) enabled by tech

Did you realize?

The words business & tech appeared together in both purposes

Developers
Architects

Operations

Developers
Architects

Dev
Ops

Operations

Developers
Architects

You build it, you run it

							Waterfall
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							"Agile" with release silo
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							"Agile" able to release
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							Design as team member
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							DevOps design/dev collab
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							Feature Factory
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							Product Team w/ "mini CEO"
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

							Product Team
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	

Source: https://amplitude.com/blog/journey-to-product-teams-infographic

Team Boundary

External handoff

Internal handoff

Cross-functional collaboration
Start | Work | Finish together

Amplitude

Moving the responsibilities to the left requires developers to understand the business as well as the business to understand tech

Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	Waterfall
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	"Agile" with release silo
Opportunity Selection	Reqs Planning			Release	Run		"Agile" able to release
Opportunity Selection				Release	Run		Design as team member
Opportunity Selection				Release	Run		DevOps design/dev collab
Opportunity Selection				Release	Run		Feature Factory
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	Product Team w/ "mini CEO"
Opportunity Selection	Reqs Planning	Design	Build	Test	Release	Run	Product Team

Source: https://amplitude.com/blog/journey-to-product-teams-infographic

Team Boundary

External handoff   Internal handoff

Cross-functional collaboration
Start | Work | Finish together

Amplitude

I am convinced that business and domain knowledge will make you a more valuable developer

Photo by Jon Tyson on Unsplash

Thank you!

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Hands On
DOMAIN-
DRIVEN
DESIGN
by example

Michael Plöd

Book Voucher: 7.99 instead of (min) 9.99
http://leanpub.com/ddd-by-example/c/speakerdeck

innoQ Deutschland GmbH

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