

Vývoj Aplikácií s Viacvrstvovou Architektúrou

02. Štruktúra Platformy



Čo nás čaká a neminie...

1. časť

Úvod do Javy

Štruktúra platformy

Vývojové technológie

Kolekcie

Logovanie

Lokalizácia

2. časť

XML, IO

Regulárne výrazy

Modularita

JDBC

Bezpečnosť

Prehľad JEE a .NET

Čo nás čaká a nemenie...

1. časť

Architektúra

2. časť

Java

Best practices | Faily | Fuckupy



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SLIDO – VAVA3

1. Čo je to viacvrstvová enterprise/podniková architektúra?
2. Aké vrstvy má enterprise/podniková architektúra?
3. Čo je ArchiMate a na čo je dobrý?

<https://wall.sli.do/event/fLsERBY4k1TzzAGYRHnVv2?section=1ccbfeec-e68e-46a3-aa62-74f02042054c>

Čo je architektúra v kontexte TOGAF?

ISO/IEC/IEEE 42010:20118

- The fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution.

The TOGAF standard

- The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time.

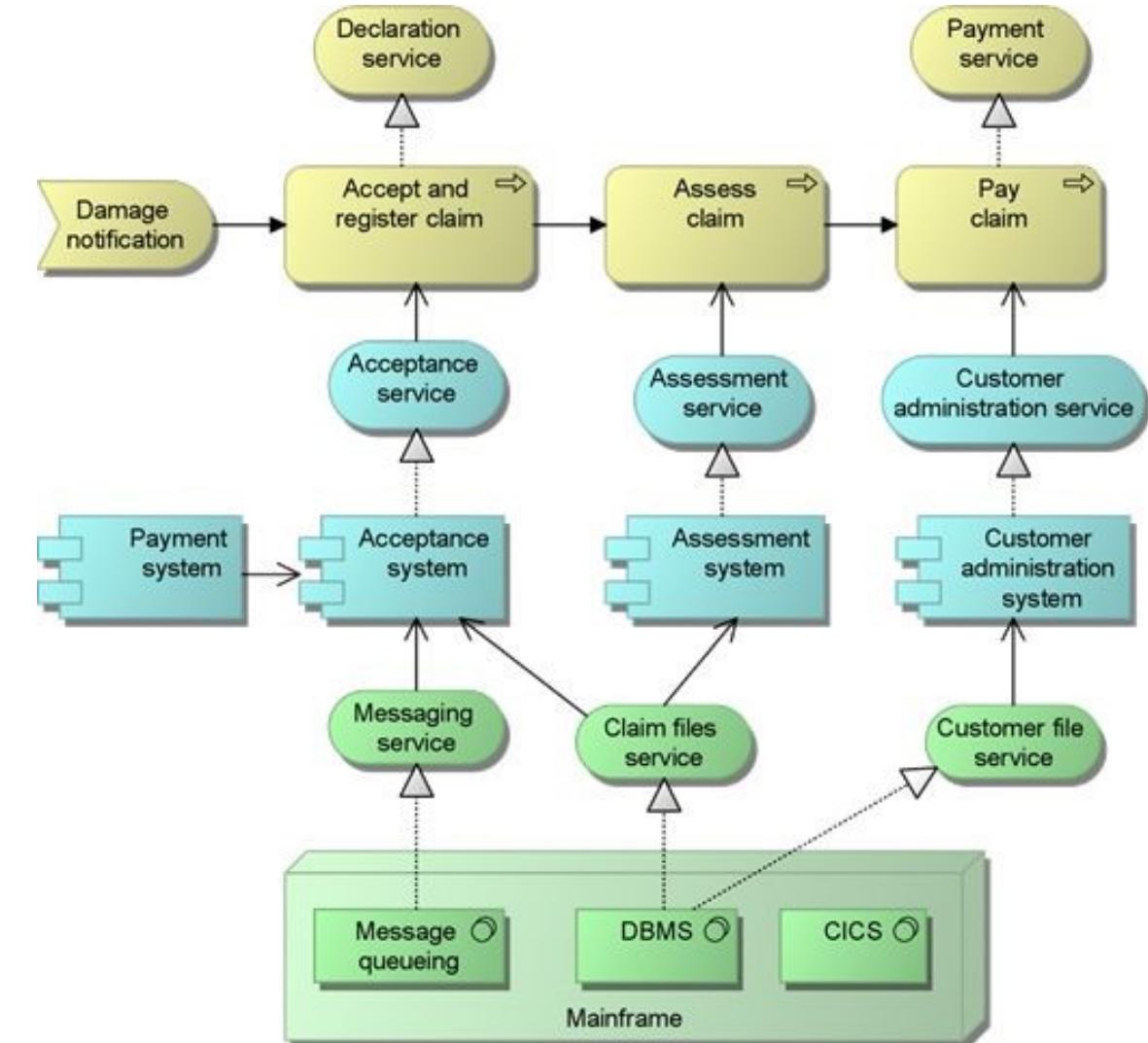
Čo je to podniková architektúra?

- Podniková architektúra zahŕňa **opis cieľov organizácie**, spôsoby ako sú tieto ciele dosahované prostredníctvom **obchodných postupov** a **spôsobov**, ako môžu tieto **procesy** byť **podporené technológiami**.

-- Roger Sessions

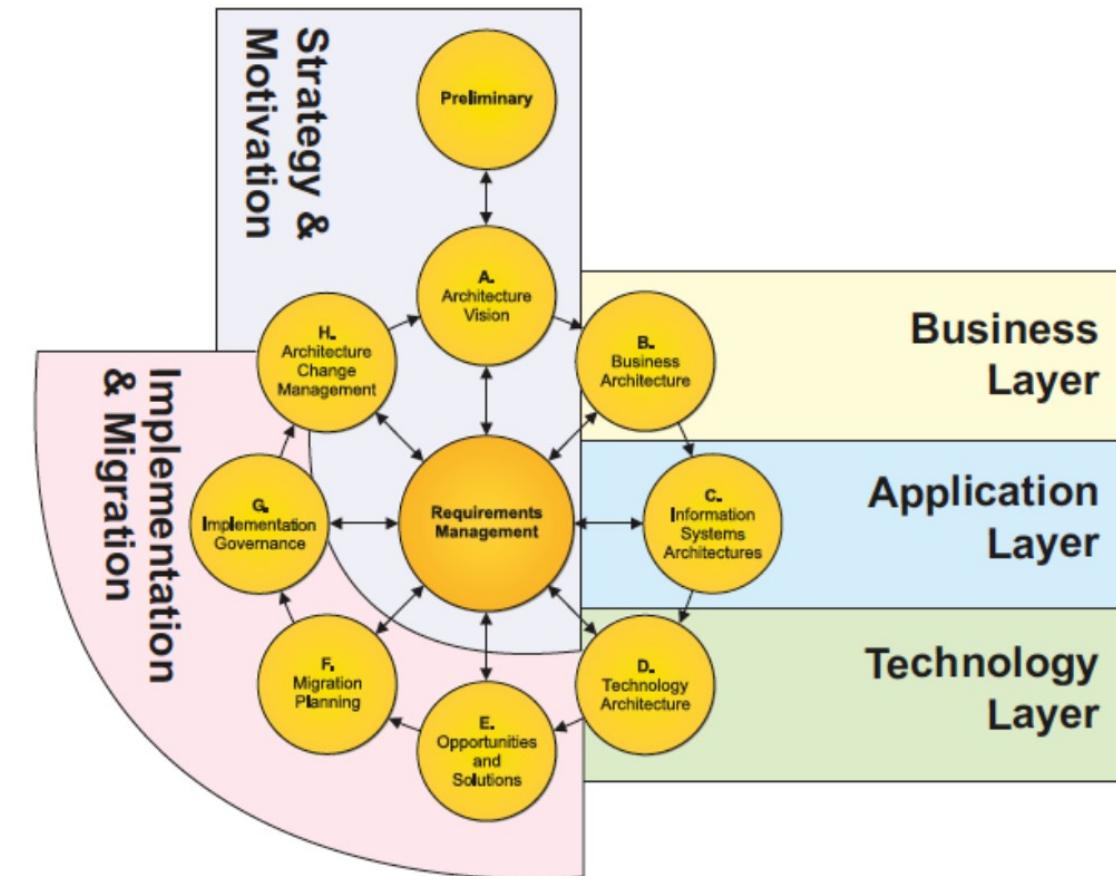
Čo je ArchiMate®?

- Modelovací (vizuálny) jazyk so množinou **predvolených** ikon na **opis, analýzu** a komunikáciu mnohých **záujmov (problémov) podniku**
- Poskytuje **množinu entít a vztahov** s ich zodpovedajúcou ikonografiou pre reprezentáciu **opisov architektúry**
- Štandard Open Group pre architektúru

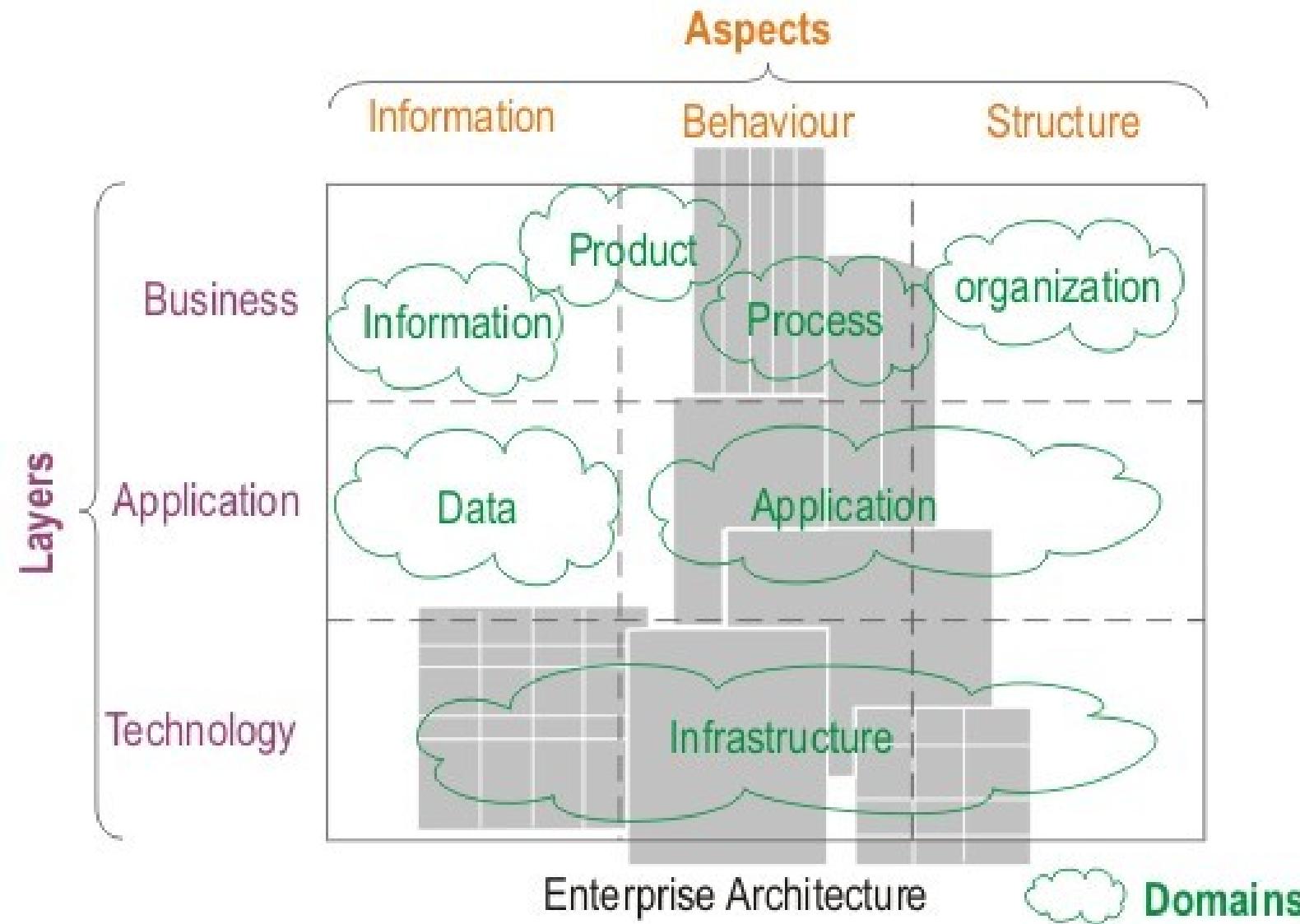


ArchiMate®, an Open Group Standard

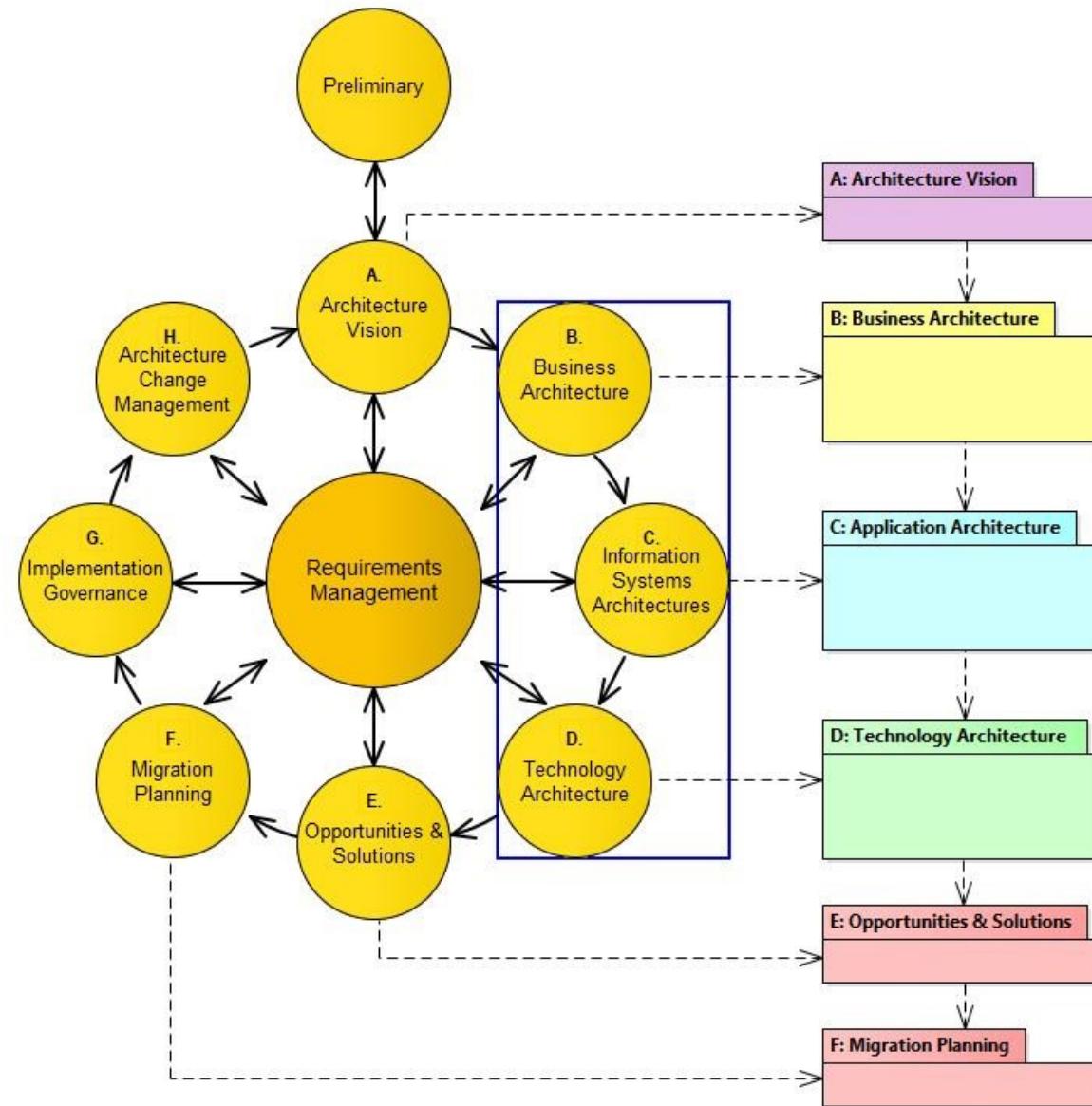
- Pomerne jednoduchý jazyk (napr. voči UML)
- Umožňuje modelovanie všetkých architektúr TOGAFu:
 - **Biznis architektúry**
 - **Architektúry informačných systémov**
 - **Technologickej architektúry**
- Okrem jazyka aj odporúčanie ako modelovať:
 - **18 architektonických pohľadov**



Pohl'ad TOGAF a ArchiMate



Vztah TOGAF a ArchiMate®



Prečo používať ArchiMate?

Spoločný jazyk
pre architektov

1 obrázok za 1000
slov

Lepšia
komunikácia vo
vnútri spoločnosti

Odstránenie
nejednoznačností

Umožňuje
analýzy dopadu

Kratšie
zaškolenie

Priama väzba na
TOGAF



Welcome to the ArchiMate® 3.0.1 Specification, an *Open Group Standard*

Contents

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- 1.1 Objective
- 1.2 Overview
- 1.3 Conformance
- 1.4 Normative References
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- 1.6 Future Directions

2 Definitions

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- 2.2 ArchiMate Core Language
- 2.3 Aspect
- 2.4 Attribute
- 2.5 Concept
- 2.6 Conformance
- 2.7 Conforming Implementation
- 2.8 Core Element
- 2.9 Composite Element
- 2.10 Element
- 2.11 Layer
- 2.12 Model
- 2.13 Relationship

3 Language Structure

- 3.1 Language Design Considerations
- 3.2 Top-Level Language Structure
- 3.3 Layering of the ArchiMate Language
- 3.4 The ArchiMate Core Framework
- 3.5 Full Framework
- 3.6 Abstraction in the ArchiMate Language
- 3.7 Concepts and their Notation
- 3.8 Use of Nesting
- 3.9 Use of Colors and Notational Cues

4 Generic Metamodel

- 4.1 Behavior and Structure Elements
 - 4.1.1 Active Structure Elements
 - 4.1.2 Behavior Elements
 - 4.1.3 Passive Structure Elements
- 4.2 Specializations of Structure and Behavior Elements

RTFM

Kto používa ArchiMate®?



HSBC

The HSBC logo consists of the word "HSBC" in a serif font next to a red diamond shape containing a white "H".

amazon

The Amazon logo features the word "amazon" in a black sans-serif font with a yellow arrow underneath.

IBM

The IBM logo consists of the word "IBM" in a bold, blue, sans-serif font.

ORACLE

The Oracle logo is the word "ORACLE" in red capital letters.

Walmart

The Walmart logo features the word "Walmart" in blue and yellow, accompanied by its signature yellow asterisk symbol.

Coca-Cola

The Coca-Cola logo is the word "Coca-Cola" in its iconic red script font.

GM

The GM logo consists of the letters "GM" in white on a dark blue square.

QUALCOMM

The Qualcomm logo is the word "QUALCOMM" in blue capital letters.

Whirlpool

The Whirlpool logo features the word "Whirlpool" in a yellow, flowing script font with "CORPORATION" in smaller text below it.

BOEING

The Boeing logo is a stylized "B" inside a circle.

Ford

The Ford logo is the word "Ford" in a blue, italicized, cursive font inside an oval.

Johnson & Johnson

The Johnson & Johnson logo is the company name in red script with a small ampersand.

CISCO

The Cisco logo consists of the word "CISCO" in blue capital letters next to a series of blue dots of varying sizes.

Všetci veľkí hráči

Obmedzenia ArchiMate

Zakreslenie procesov

- Ponúka len základné prvky pre zakreslenie biznis procesov
- Pokial' je potrebné tieto procesy zakresliť do väčšieho detailu je vhodné použiť BPMN alebo diagram aktivít v UML

Popis aplikačných komponentov

- Ak je treba popísať vnútornú štruktúru aplikácií či informačných systémov, je vhodné použiť notáciu UML, ktorá k tomu poskytuje potrebné prostriedky

Biznis objekty

- ArchiMate nedovoľuje pridávať atribúty (podobne ako v diagramoch tried)

Pohľady v ArchiMate®

1. Úvodný pohľad
2. Organizačný pohľad
3. Pohľad kooperácie aktérov
4. Pohľad biznis funkcií
5. Pohľad biznis procesov
6. Pohľad kooperácie biznis procesov
7. Produktový pohľad
8. Pohľad správania aplikácie
9. Pohľad kooperácie aplikácií
10. Pohľad štruktúry aplikácie

11. Pohľad použitia aplikácií
12. Infraštrukturny pohľad
13. Pohľad použitia infraštruktúry
14. Pohľad implementácie a rozmiestnenia
15. Pohľad informačnej štruktúry
16. Pohľad realizácie služieb
17. Vrstvový pohľad
18. Mapový pohľad

Motivation Layer

Mission-
Vision-Values
View

Motivation
View

Stakeholder
View

Stakeholder
Analysis View

Goals View

Principles
View

Requirements
View

Risk and
Security View

Strategy Layer

Value Map -
Strategy Map
View

Goal to
Strategy View

Strategy View

Strategy To
Capability
View

Business
Model View

Capability
Map View

Capability
Planning View

Business Architecture Layer

Business
Services View

Business
Actors View

Business Roles
View

Business
Concepts
View

Business
Processes
View

Business
Functions
View

Business
Process Co-
operation

Application Architecture Layer

Application
Services View

Applications
Map View

Application
Functions
View

Information
View

Application
Interfaces
View

Application
Integration
View

Application
Co-operation
View

Layered View

Technology Architecture Layer

Technology
Services View

Platform View

Technology
Map View

Infrastructure
View

Implementation and Migration Layer

Kanban Board
(portfolio)

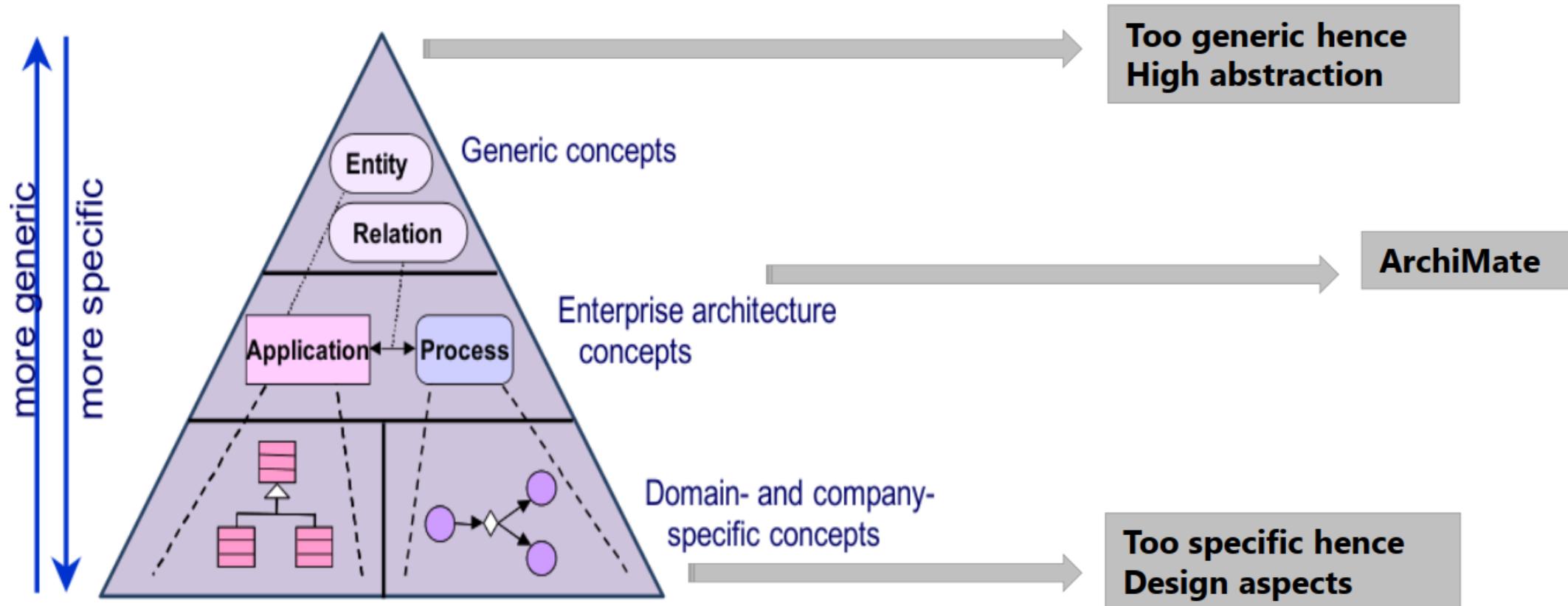
Programs &
projects View

Roadmap
View

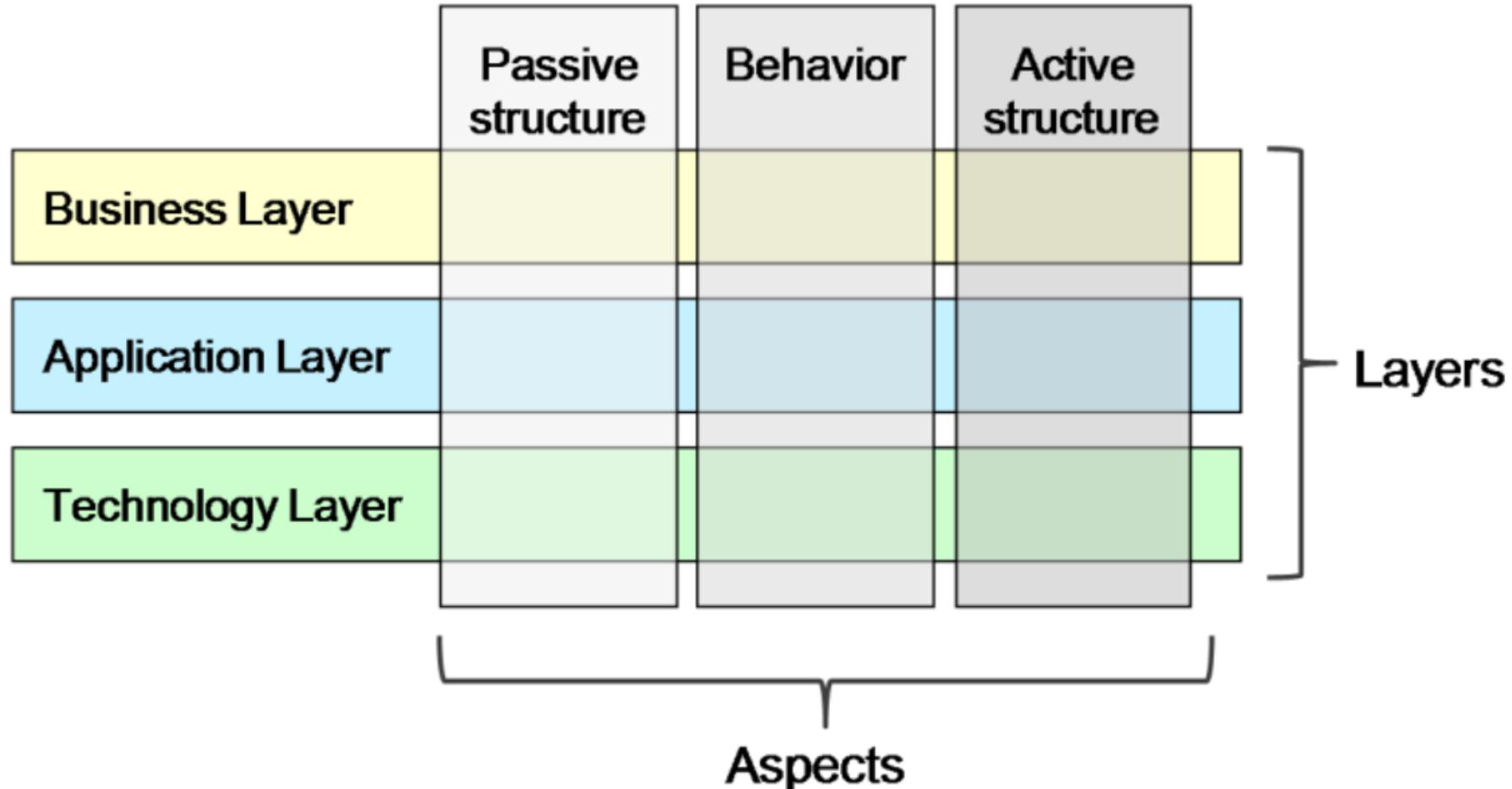
Capability
Realization
View

Service
Realization
View

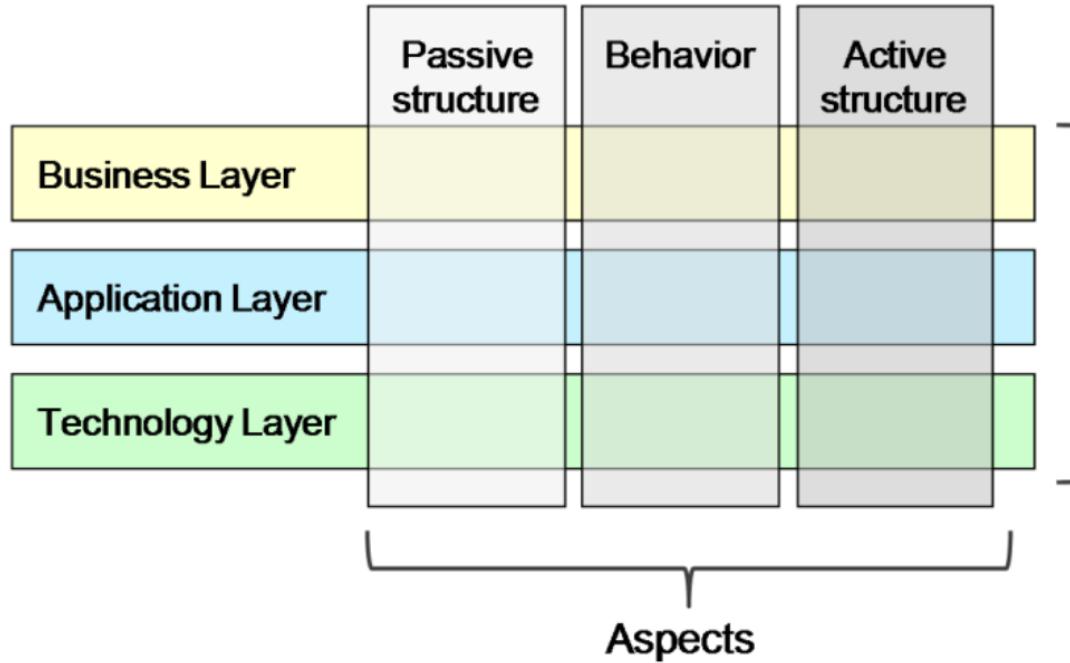
Popis architektúry na rôznych úrovniach



Core Framework – Vrstvy (Layers) a aspekty

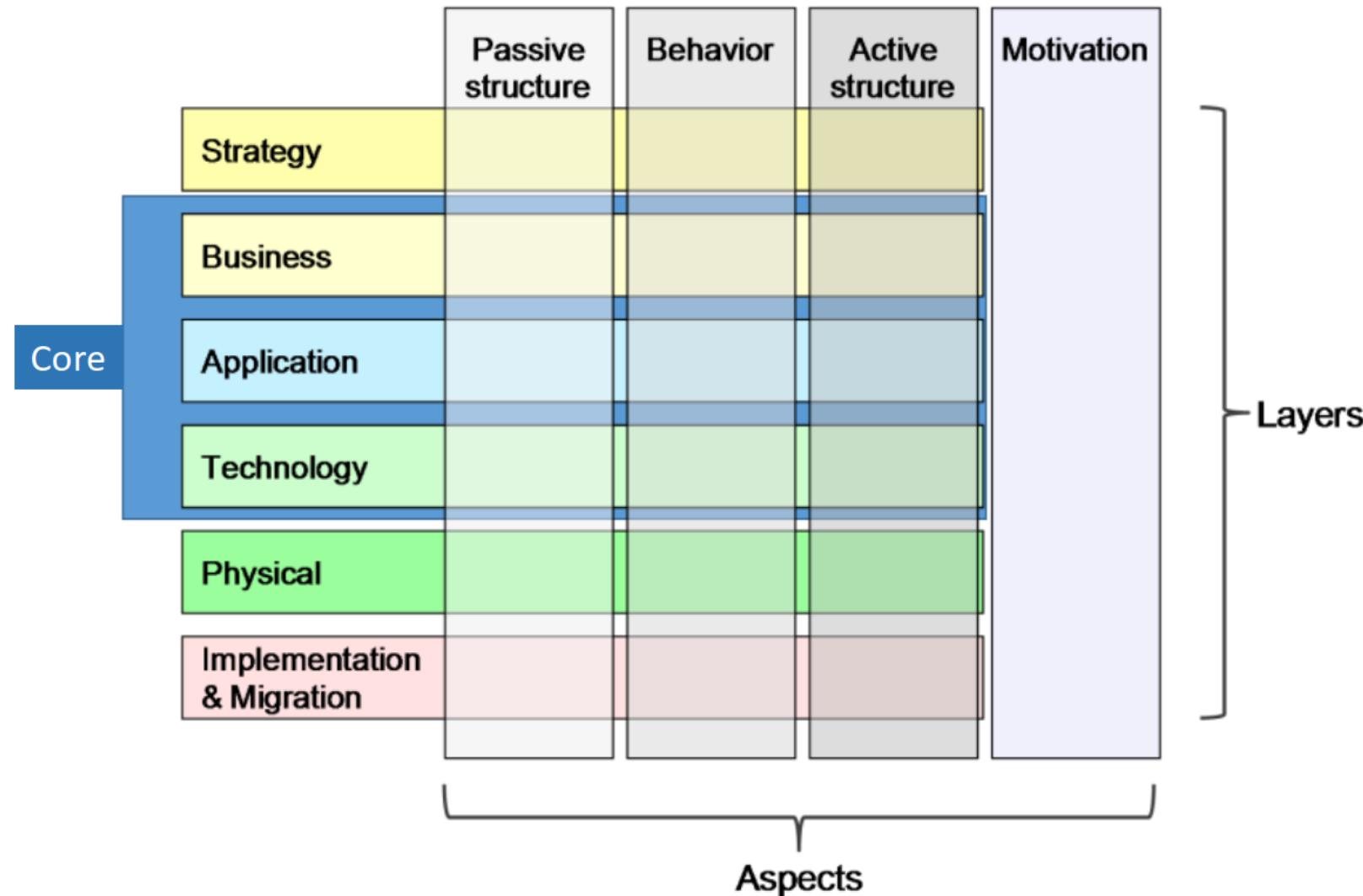


Core Framework – Vrstvy



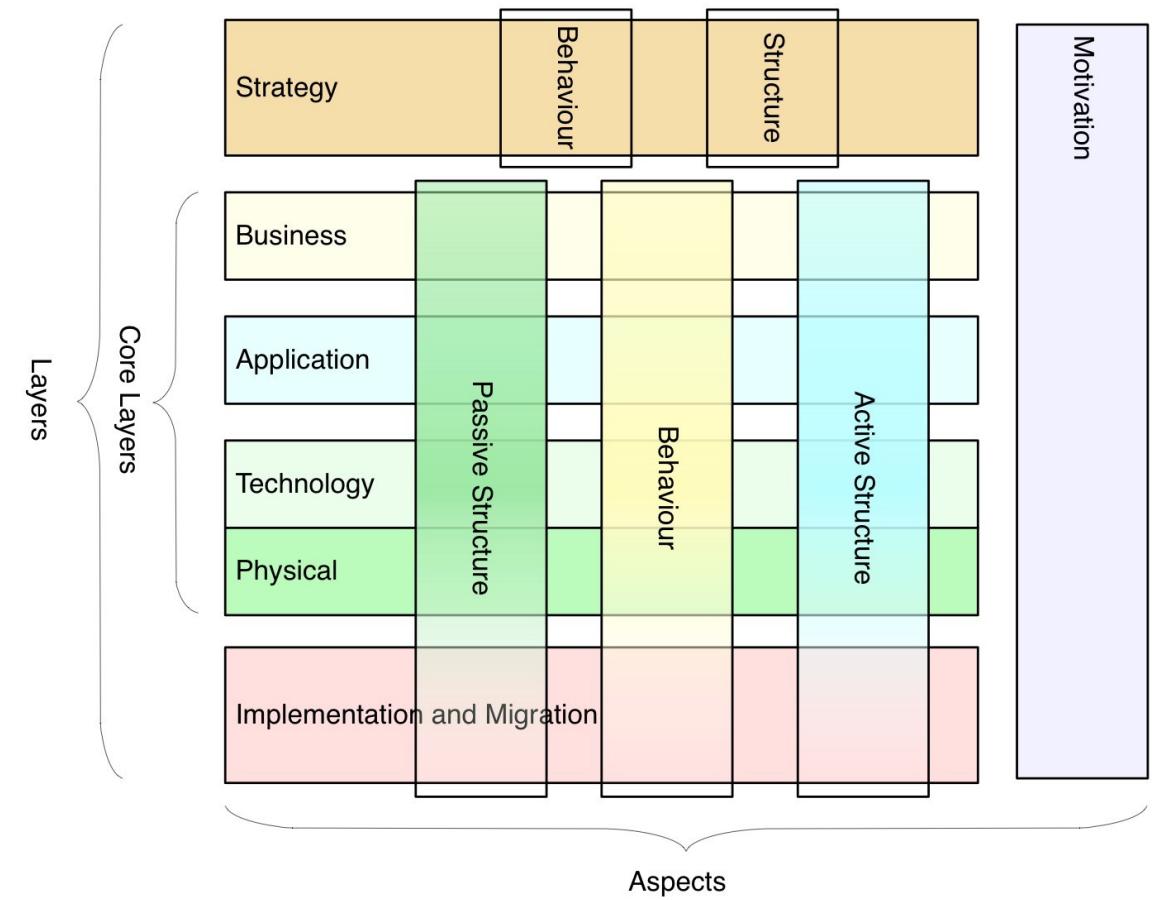
1. **Business Layer** depicts business services offered to customers. These services are realized in the organization by business processes and are performed by business actors.
2. **Application Layer** depicts application services that support the business. These services are realized by application components.
3. **Technology Layer** depicts technology services serving the applications. These services (like processing, storage, and communication services) are realized by computer and communication hardware and system. Physical elements are added for modeling physical equipment, materials, and distribution networks to this layer.

Úplný rámec - vrstvy a aspekty



Vrstvy (Layers) - ArchiMate Extensions

- 4. Strategy layer
- 5. Physical layer
- 6. Implementation & Migration layer
- Motivation extension



Aspekty (Aspects)

ArchiMate striktne oddeluje 3 základné aspeky:

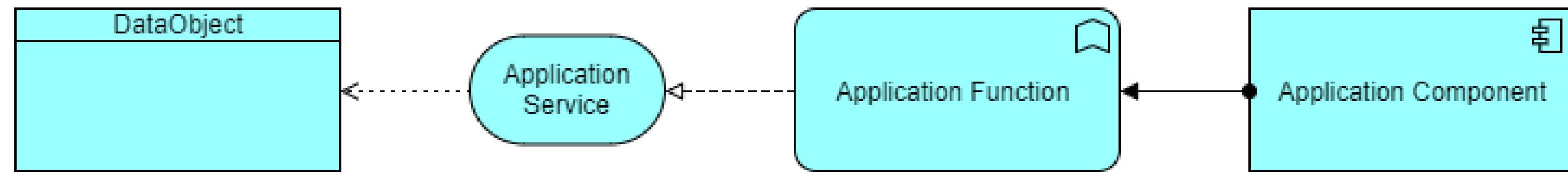
1. **Active Structure Aspect** – reprezentujú **štrukturálne elementy** (napr. aktérov, role, komponenty, hardvér, ktoré sú schopné určitého chovania. Tiež sú tieto elementy označované ako aktívne).
2. **Behavior Aspect** – Reprezentuje **chovanie** (napr. procesy, funkcie, služby) **vykonávané aktívnymi** (štrukturálnymi) **elementami**. Chovanie je priradené (assigned) aktívному elementu.
3. **Passive Structure Aspect** (pasívne elementy) – **reprezentujú objekty** (napr. biznis objekty, dátové objekty ale aj fyzické objekty), na ktorých môže byť aplikované chovanie aktívneho elementu (či sú takýmto chovaním ovplyvnený)

Aspekty (Aspects)

Pasívny element
Passive Structure
Aspect

Chovanie aktívneho elementu
Behavior Aspect

Aktívny element
Active Structure Aspect



Pochopenie typov aspektov elementu

- Aká je aktívna štruktúra, behaviorálna a pasívna štruktúra?
 - Kuchár varí jedlo
 - Mechanik zvára auto
- **Kuchár/Mechanik**
 - **Aktívny prvok** štruktúry schopný **vykonávať správanie, zobrazuje správanie – subject/podmet (podstatné meno)**
- **Varenie/zváranie**
 - **Behaviorálny** prvok je jednotka **aktivity vykonávaná aktívnym elementom** (štruktúrami) - typicky verb/**prísudok (sloveso)**
- **Potraviny/Auto**
 - **Prvok pasívnej** štruktúry, **na ktorom sa vykonáva správanie** – objekt/**predmet (podstatné meno)** (informácie, údaje alebo fyzické)

Inšpirácia prirodzeným jazykom

Rozlúšenie elementov podľa rohov

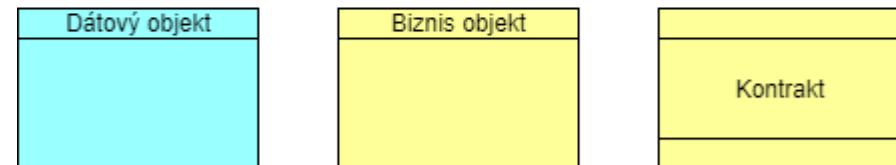
1. Ostré rohy – aktívne elementy



2. Zaoblené rohy – element chovania (behavior)

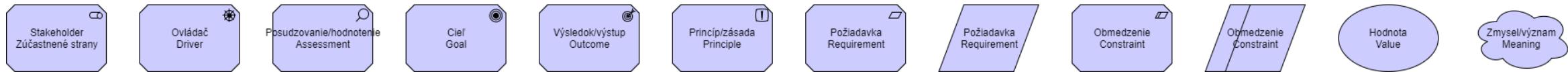
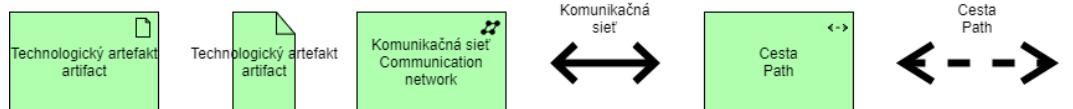
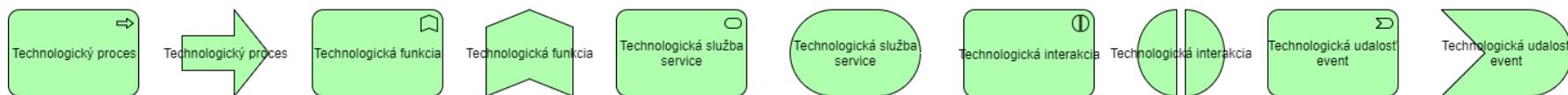
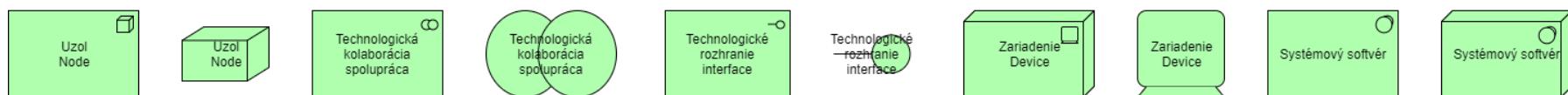
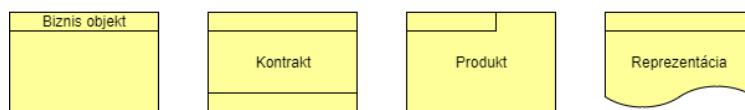
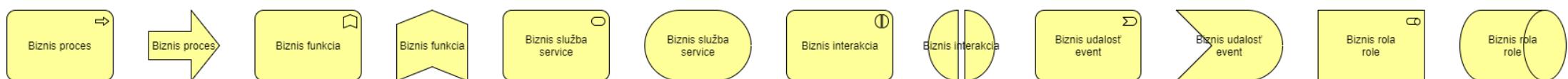
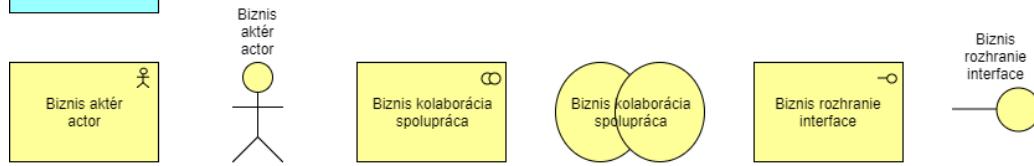
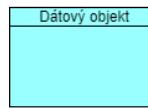
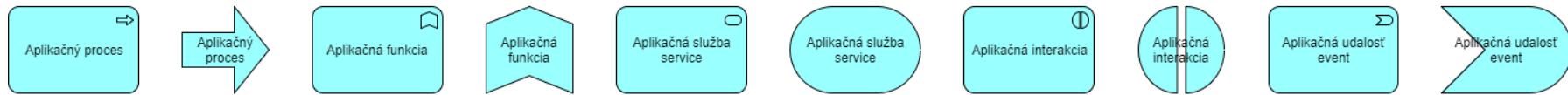
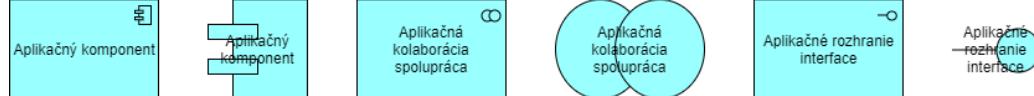


3. Ostrý roh s preškrtnutím – pasívne elementy



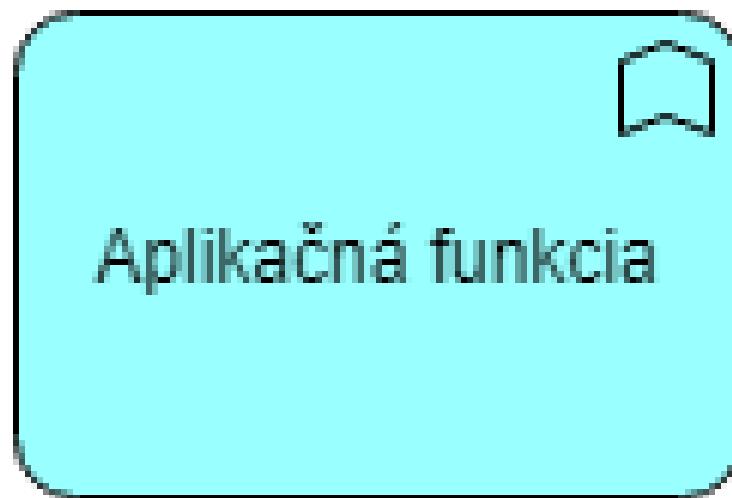
4. Skosené rohy – motivačný element





Spôsob zápisu elementov

Obdĺžnikový zápis



Zápis ikony



S	V	O	M	P	T
Subject/Podmet	Verb/Prísudok	Object/Predmet	Manner/Spôsob	Place/Miesto	Time/Čas
kto/čo?	čo robí?	koho/čo?	ako?	kde?	kedy?
Mike	rides	his bike	fast	in the park	every day.
Michal	jazdí	na motorke	rýchlo	v parku	každý deň.
Peter	writes	his homework		on Monday	morning.
Peter	si píše	domácu úlohu		v pondelok	ráno.
I	have	my dinner		at home	every evening.
Ja	večeriam			doma	každý večer.

Pochopenie typov aspektov elementu

1. Zástupca zákazníka

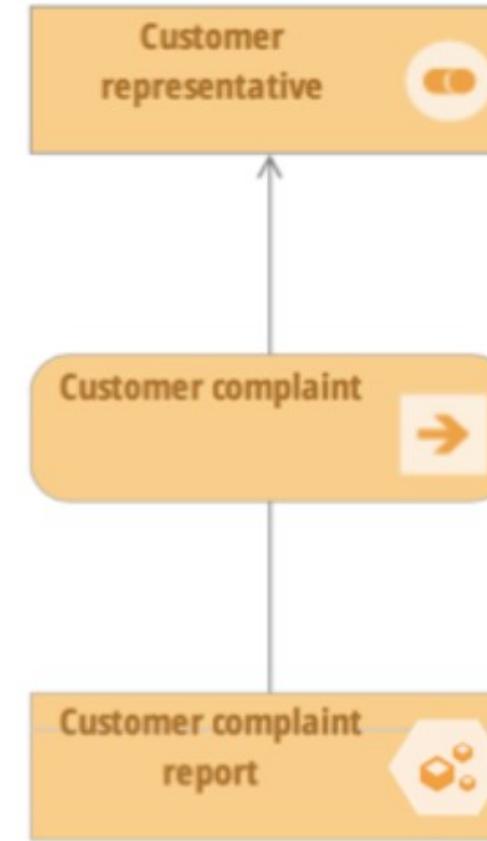
- Aktívny prvok štruktúry schopný vykonávať správanie, zobrazuje správanie - predmet

2. Vybavovanie sťažností zákazníkom

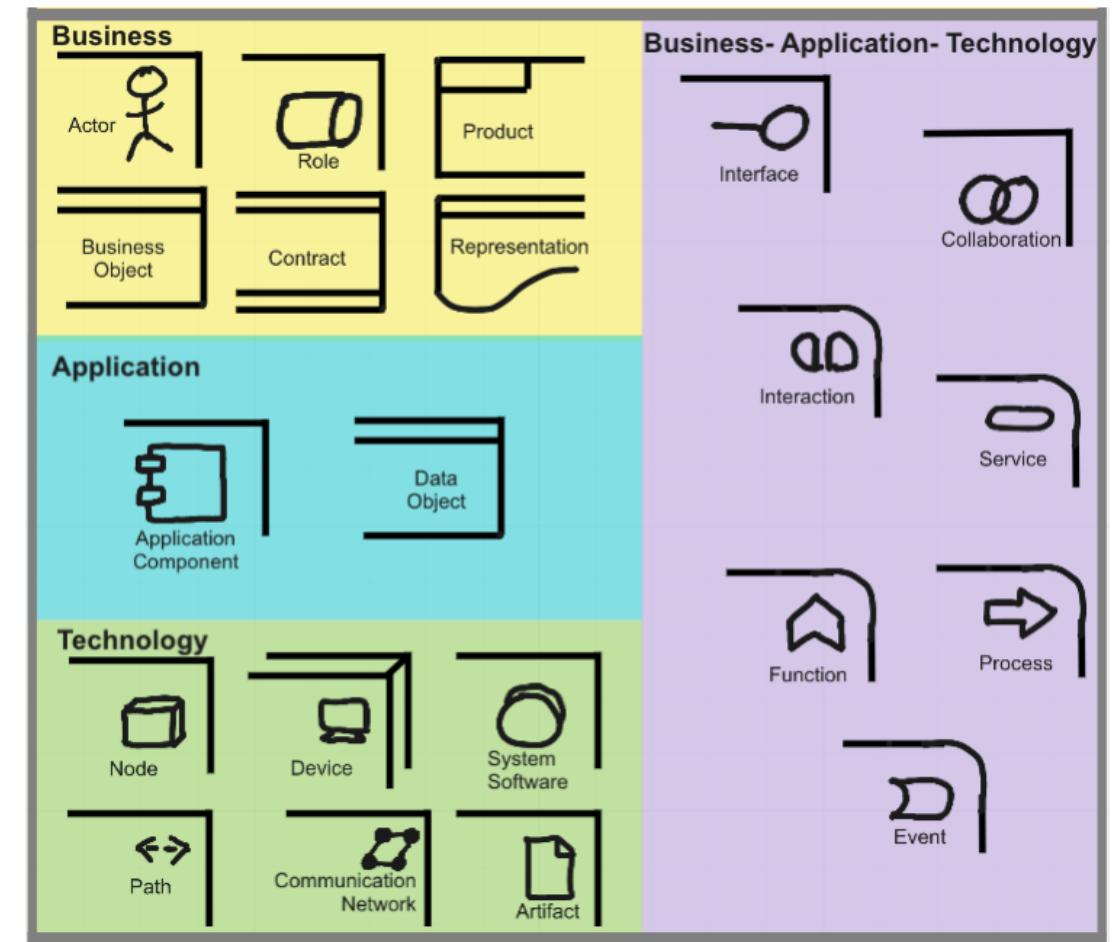
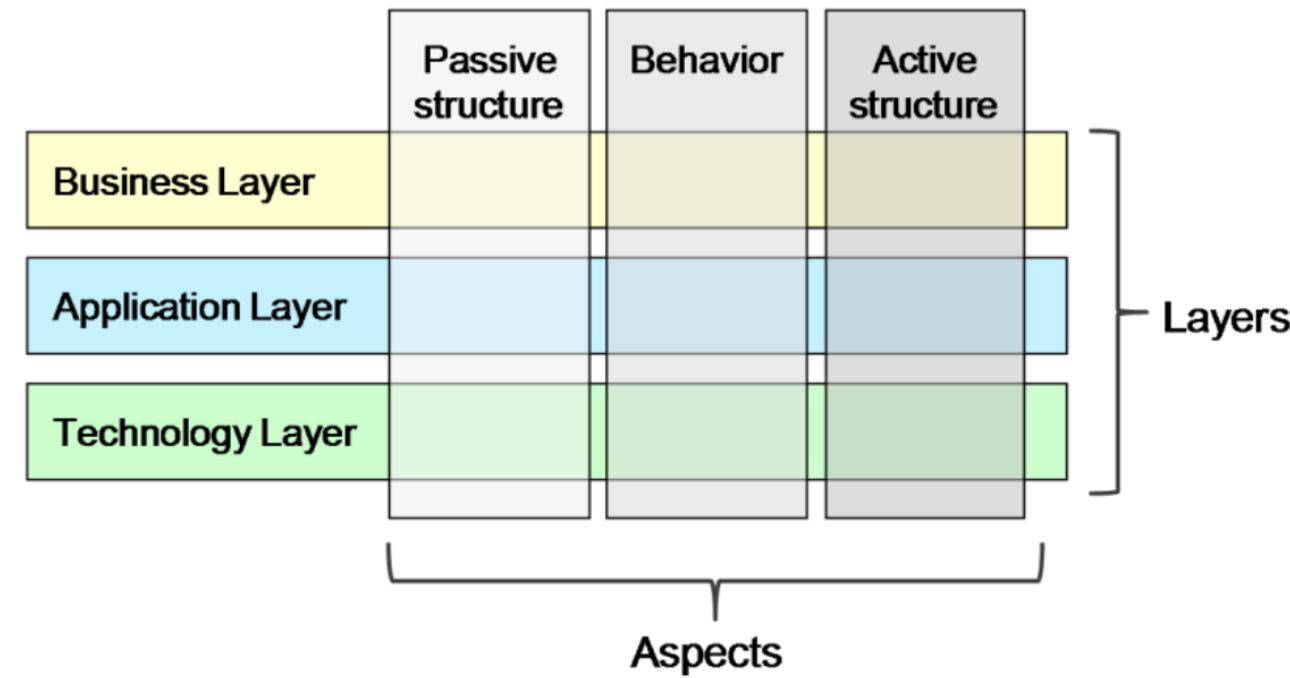
- Behaviorálny prvok je jednotka aktivity vykonávaná aktívou štruktúrou element (y) - (typicky sloveso)

3. Správa o zákazníkovi

- Prvok pasívnej štruktúry, na ktorom sa vykonáva správanie – objekt (informácie, údaje alebo fyzické)

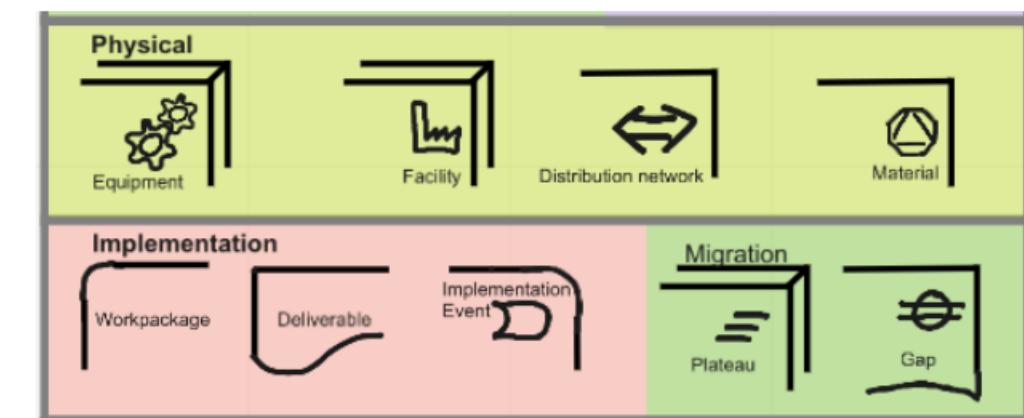
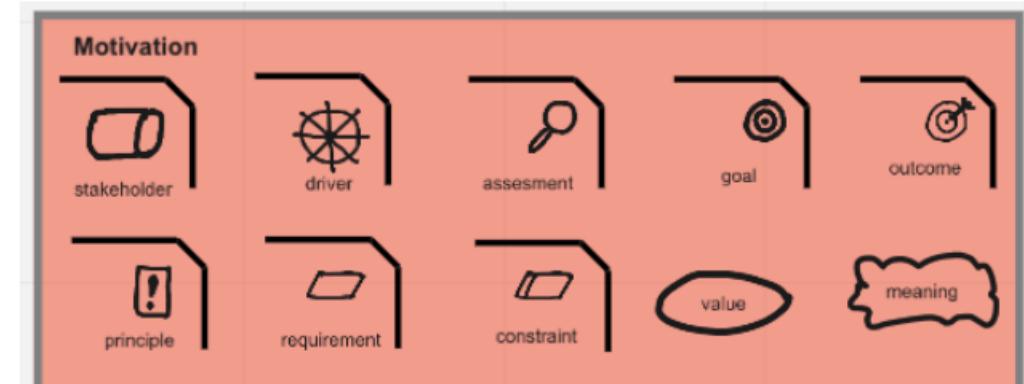
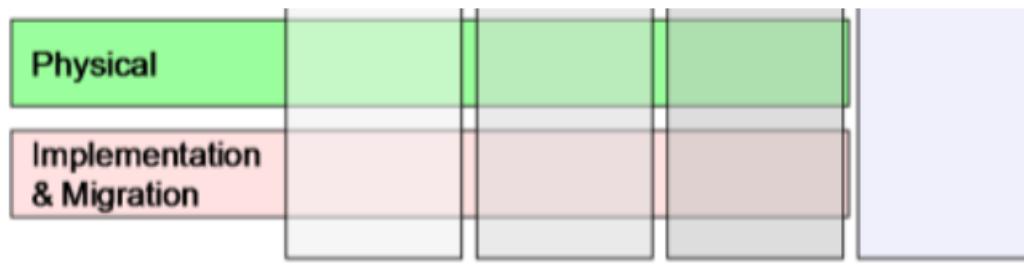


Všetky prvky v základnom rámci (Core Framework)

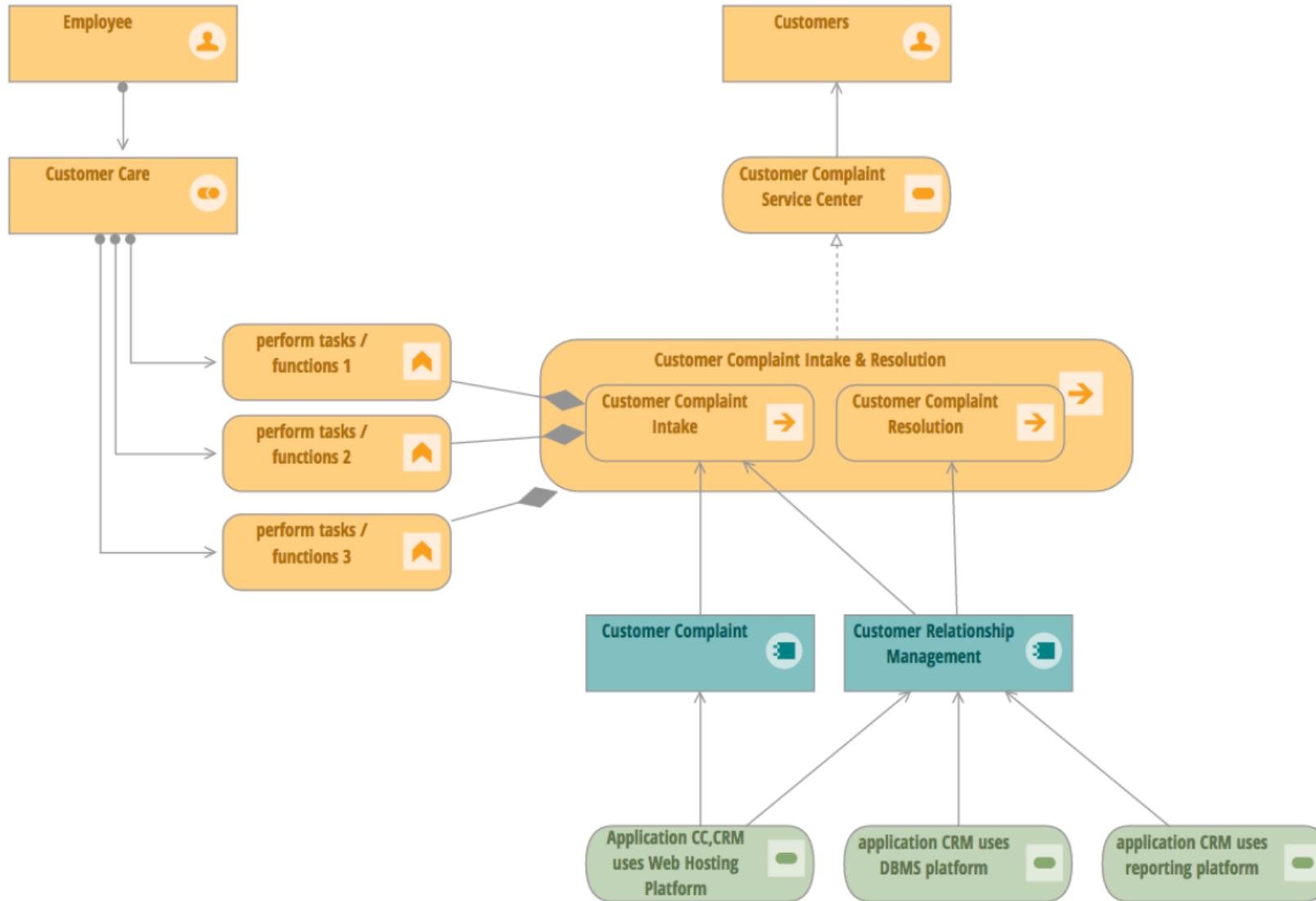




Core layers removed for simplicity



Príklad ArchiMate modelu - Core Layers



Súbor Správa Vývojár Pomocník Povedzte, čo chcete urobiť

Odstrániť Archivovať Premiestniť

Odpovedať všetkým

Preposlat'

Označiť ako neprečítané



Toolkit Tuesday: A Best Practice for Developing a MOSA-based Reference Architecture



The Open Group <donotreply@opengroup.org>



Odpovedať všetkým



st 16. 2. 2022 21:26

Ak sa vyskytnú problémy so zobrazením tejto správy, kliknutím sem ju zobrazte vo webovom prehliadači.



Dear Miroslav,

In the next episode of the [Architect's Toolkit Tuesday Broadcast Series](#), we are talking about Modular Open Systems Approach (MOSA).

Join us on **Tuesday, February 22, 2022**, at 8:30 am PST, 4:30 pm GMT when Dr. Steven Davidson, Chief Scientist for Systems Architecture Electronic Systems Innovation Center, The MITRE Corporation will be talking about **A Best Practice for Developing a MOSA-based Reference Architecture**.

* AMAZON



EBAY⁺



CASE STUDIES

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Raiffeisen Bank

Unicorn Systems zrealizoval informačný systém SUN – intuitívny nástroj pre pobočky a callcentrum novootvorenej Raiffeisen Banky na Slovensku na získavanie nových klientov a zároveň na podporu obsluhy svojich súčasných klientov. Používateľské rozhranie aplikácie je jednoduché a intuitívne, takže s ňou dokáže pracovať aj zamestnanec so základnými znalosťami práce s počítačom.

ICT prostredie: Unicorn Application Framework, J2EE, Oracle ALBPM, WebSphere, Hibernate



Všeobecná úverová banka

ICT špecialisti z Unicornu sú súčasťou vývojových tímov VÚB banky, kde zaistujú rozvoj a údržbu kľúčových systémov a aplikácií. Podľa potreby sú flexibilne alokovaní na riešenie úloh aktuálne bežiacich projektov. Svojimi skúsenosťami a otvoreným prístupom prinášajú banke potrebnú pridanú hodnotu a schopnosť flexibilne reagovať na potreby rozvoja bankových aplikácií na základe požiadaviek zo strany biznisu.

ICT prostredie: JavaEE, IBM WebSphere, IBM BPM Advanced, IBM FileNet, Oracle DB, IBM DB2, MS SQL

CASE STUDIES

37



ENTSO-E

EMFIP je informačný systém určený na zhromažďovanie a publikáciu informácií z elektroenergetiky. Dáta zasielajú rôzni poskytovatelia cez rôznorodé integračné protokoly (MADES, webové služby, FTPS) s okamžitým overením ich úplnosti a správnosti.

ICT prostredie: Java, MySQL, Unicorn Open Platform, MongoDB



Sberbank

CRIS zabezpečuje evidovanie a sledovanie plnenia úverových podmienok korporátnych klientov, evidovanie a vyhodnocovanie varovných signálov indikujúcich kreditné riziko týchto klientov. Systém slúži aj na automatizáciu generovania reportov o klientoch a kontraktach. Dôležitou súčasťou je aj modul finančných analýz poskytujúci analytické pohľady na finančnú výkonnosť klienta.

ICT prostredie: Angular, JavaEE, Spring, JBoss, Hibernate, Oracle DB, DB2

CASE STUDIES

38



SEPS

Damas pomáha zaistovať cezhraničnú spoluprácu, medzinárodné prenosy elektriny, ako aj systémové služby umožňujúce riadenie prenosovej sústavy.

Damas podporuje všetky fázy činností od dlhodobého plánovania a nákupu, cez denné a vnútrodenné trhy a prípravu prevádzky až po následné vyhodnotenie.

ICT prostredie: .NET (C#), Oracle, Java, Web Services, MS IIS, BUF, Windows 2003 Advanced Server



Erste Group IT

Prostredníctvom aplikácie Jira získala Erste Group IT systém pre zaznamenanie a vyhodnocovanie procesov dodávky softwarových riešení, ktorý znižuje mieru rizika pri dodávkach a umožňuje manažmentu včas reagovať na vzniknuté situácie. Procesné riadenie sa aplikovalo v oblastiach Demand, Release, Test a Deployment manažmentu do jednotného nástroja postaveného na platforme Jira.

ICT prostredie: Jira

CASE STUDIES



CCS

Mobilná aplikácia Tank Navigator pomáha vodičom pri hľadaní čerpacích staníc akceptujúcich karty CCS v Českej a Slovenskej republike. Vodičom sú tak rýchlo k dispozícii podrobne informácie o čerpacích staniciach v blízkom okolí aj stovky kilometrov ďaleko. Samozrejmostou je GPS navigácia a filtrovanie staníc podľa typu paliva, radenia, vybavenia alebo značky.

ICT prostredie: iOS, Android



Plus4U

Plus4U je náš vlastný digitálny svet. Ide o internetovú službu, pomocou ktorej sú poskytované riešenia vytvorené na platforme Unicorn Universe. Ponúka nástroje pre firmy, organizácie aj jednotlivcov – od správy najrôznejších činností cez zdieľanie informácií až po bezpečné ukladanie ľubovoľných dát a ich jednoduchú dostupnosť on-line odkiaľkoľvek.

ICT prostredie: Java, Ruby, JavaScript, HTML5, MongoDB

[Home](#) / Search Results for java

Search Results for *java*

Technology Matches

w Java Servlet

[Java Servlet Usage Statistics](#) · [Download List of All Websites using Java Servlet](#)

Java Servlet API, a protocol by which a Java class may respond to HTTP requests.

Frameworks

Java EE

[Java EE Usage Statistics](#) · [Download List of All Websites using Java EE](#)

Java Platform, Enterprise Edition (Java EE) is the industry standard for developing portable, robust, scalable and secure server-side Java applications.

Frameworks

Sun Java System

[Sun Java System Usage Statistics](#) · [Download List of All Websites using Sun Java System](#)

Sun Java System Web Server is a secure, reliable, easy-to-use Web server designed for medium and large sites.
Web Servers

w Applet

[Applet Usage Statistics](#) · [Download List of All Websites using Applet](#)

A old method of embedding Java content into a page.

Document Standards

Keyword Matches

43163 websites with the keyword "java" on the homepage.

[View List](#)

This is a list of websites with the keyword in the plain text copy of the website, it is not related to any technology with the name java.

Company Matches

[BlogJava](#)

[Huong Dan Java](#)

[JAVAD GNSS Inc](#)

[Java Brains Open in](#)

[Java House & Home](#)

[Java Pura](#)

[Java2Blog](#)

[JavaHub](#)

[JavaPresse Coffee Company](#)

[JavaRush](#)

[JavaScript UI Library](#)

Websites using Java EE in Slovakia

[Download Full Lead List](#)

Download a list of all 1,131 Java EE Customers in Slovakia

Website	Location	Sales Revenue	Tech Spend	Social	Employees	Traffic	
 jira.pixelfederation.com	 Slovakia		\$250+	1,000+	100+	Medium	
 db.dai.fmph.uniba.sk	 Slovakia		\$5000+			High	
 slsp.sk	 Slovakia		\$5000+	500+		Medium	
 profesia.sk	 Slovakia		\$1000+	500+		Medium	
 isadore.com	 Slovakia	\$64k+	\$1000+	500+	-		
 powerplaymanager.com	 Slovakia		\$500+			Medium	
 rrtrains-2000.windows8compatible.com	 Slovakia		\$100+		-		
 skgeodesy.sk	 Slovakia		\$0+			Medium	
 vub.sk	 Slovakia		\$500+		1,000+	Medium	
 uvo.gov.sk	 Slovakia		\$1000+	0+		High	
 slovanet.net	 Slovakia		\$500+		-		
 azet.sk	 Slovakia		\$5000+			High	
 pss.sk	 Slovakia		\$500+	0+	-		
 mountfield.sk	 Slovakia		\$10000+		-		
 consent.posta.sk	 Slovakia		\$250+			Medium	
 autodielyonline24.sk	 Slovakia		\$100+		-		
 autovia.sk	 Slovakia		\$500+	500+	-		
 portal.minv.sk	 Slovakia		\$500+			High	
 stockmanagementlabs.com	 Slovakia	\$20k+	\$500+		-		
 brose.com	 Slovakia		\$5000+	1,000+	10,000+	-	
 ais2.umb.sk	 Slovakia	\$321k+	\$250+	500+		High	
 registeruz.sk	 Slovakia		\$0+			Medium	
 upc.sk	 Slovakia		\$10000+	50+		Medium	

[Home](#) / [Website analyzer](#) / o2.sk

O2 | Mobilné telefóny, internet a volacie programy

<https://o2.sk>[UPDATE](#)

Tech stack analysis

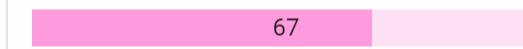
Last updated: 1 year ago [?](#) Show categories**16 Technologies detected** [?](#)

Technology	Version	Latest version	Status
AlloyUI		3.1.0	✓
RequireJS		2.3.6	✓
FancyBox	2.1.7	3.5.7	!
jQuery	2.2.4	3.5.1	!
YUI	patched-v3.11.0	3.18.1	!
Bootstrap	3.4.1	4.5.0	!
Java			✓
Crazy Egg			✓
Gemius			✓
Google Analytics Enhanced eCommerce			✓
Google Analytics			✓

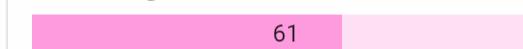
AWEASOMENESS



TECHNOLOGY [?](#)



VERSION [?](#)



QUALITY [?](#)

[QUALITY REPORT](#)

AWESOMENESS HISTORY



First analysis: 1 year ago

Awesomeness scale: 0-49 50-89 90-100

[Home](#) / [Website analyzer](#) / orange.sk

orange.sk

Spájame vás s tým, na čom vám záleží | Orange

<https://orange.sk>[UPDATE](#)

Tech stack analysis

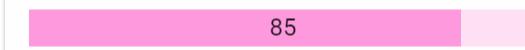
Last updated: 1 year ago  Show categories**9 Technologies detected** 

Technology	Version	Latest version	Status
 jQuery	1.11.1	3.5.1	
 Bootstrap	3.3.6	4.5.0	
 PHP			
 Google Analytics Enhanced eCommerce			
 Google Analytics			
 Hotjar			
 Facebook			
 Google Tag Manager			
 TYPO3 CMS			

AWEASOMENESS



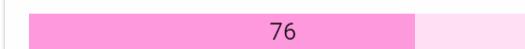
TECHNOLOGY



VERSION



QUALITY

[QUALITY REPORT](#)

AWESOMENESS HISTORY



First analysis: 1 year ago

Awesomeness scale:  0-49  50-89  90-100

Improvement suggestions

[Úvodná stránka](#) / Hľadanie práce

Pozícia, klúčové slovo alebo firma

java programátor x pridať ďalšie...

Obec, okres, kraj alebo krajiná

Skúste napríklad Bratislava



+30km

Vyhľadať

Rozšírené vyhľadávanie

KRAJE

Bratislavský kraj	138
Košický kraj	45
Žilinský kraj	22
Banskobystrický kraj	14
Trnavský kraj	6
Nitriansky kraj	4
Prešovský kraj	4
Trenčiansky kraj	1
» Zoznam lokalít	
» Zahranie	

PRÁCA Z DOMU

Práca iba z domu	86
Možná čiastočne	57
Práca iba na pracovisku	182

PLAT

Vyberte obdobie	mesiac	hodina
od 500 EUR	310	
od 700 EUR	306	
od 1 000 EUR	301	

PONUKY PRÁCE: JAVA PROGRAMÁTOR

1 - 20 z 325

Backend Developer (Java/ Kotlin) - Payment Solutions

RPC

Bratislava, Slovakia (Job with the possibility of working from home)

2 100 EUR/mesiac

Uložiť ponuku

Pridané pred 3 hodinami

ZAUJÍMAVÉ PRÍLEŽITOSTI

Junior Software Developer (m/w/d)

S&T AG

Lehrbachgasse, 1120 Wien, Österreich (Arbeitsstelle mit der Möglichkeit, von zu Hause aus...)

3 000 EUR/mesiac

Uložiť ponuku

Pridané pred 4 hodinami

Java Developer for Capital Markets platforms [Online/phone recruitment]

Accenture, s.r.o.

Bratislava

1 400 EUR/mesiac

Uložiť ponuku

Pridané pred 11 hodinami

Full Stack Developer

ManpowerGroup Slovensko s.r.o.





Hire the Top 3% of Freelance Java Developers

Toptal is a marketplace for top Java developers, engineers, programmers, coders, architects, and consultants.
Top companies and start-ups choose Toptal Java freelancers for their mission-critical software projects.

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Clients Rate Toptal Java Developers **4.4** / 5.0
on average across 923 reviews as of Feb 23, 2022

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BRANDS AND STARTUPS

KraftHeinz

BRIDGESTONE

[WATCH THE CASE STUDY](#)

duolingo

USC

[WATCH THE CASE STUDY](#)

shopify

Cavaliers

[WATCH THE CASE STUDY](#)



How to Hire a Great Java Developer

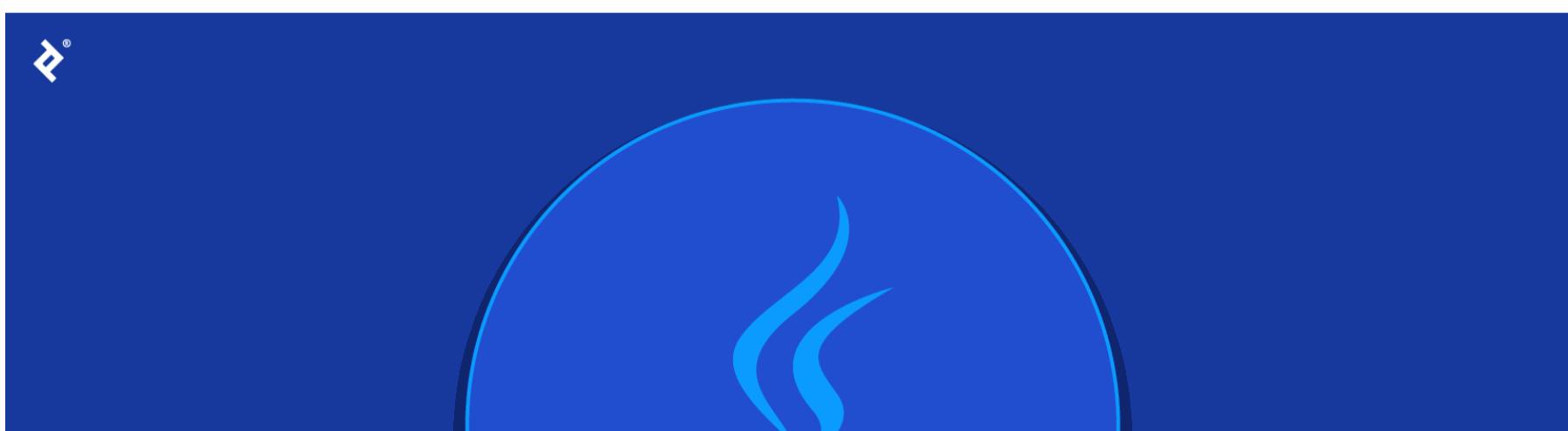
 1.1K SHARES



The Challenge

Today, nearly 20 years after its initial launch, Java is reported to be the [most in-demand language skill](#), and by a wide margin (twice as popular as the runner up, PHP).

With Java application usage being so pervasive, there is no shortage of developers with Java listed on their resumes. But as with any technology, there's knowing Java and then there's *really* knowing Java. So how can you identify those who are true Java development experts?





Hľadať na Facebooku



Miroslav



Ako z domu zarábať 4-krát tolko ako programátor v Bratislave?

Jano Suchal · Last edited 15. marec 2021 · 4 minute read

Uložiť

...

Ako z domu zarábať 4-krát tolko ako programátor v Bratislave?

Napriek tomu, že to fakt znie ako spam, nikto mi dnes konto nehackol. O čo ide?

Pár mesiacov dozadu mi, už ani neviem pri akej príležitosti, kolega poslal odkaz na Toptal (<http://j.mp/1bnAfUs>). Vyzerá to na prvý pohľad ako úplne bežný portál, kde firmy hľadajú programátorov, ale sú tam tri podstatné rozdiely:

1. Používajú to top firmy ako AirBnB, ZenDesk, Pfizer, Art.sy...
2. Sú tam výhradne remote pozície.
3. Ako programátor musíte prejsť cez sériu úloh a pohоворov, aby ste sa tam dostali. Tým výberovým konaním prejdú vraj len 3% uchádzačov.

Samozrejme moja reakcia bola, že toto treba okamžite skúsiť už len preto, aby som zistil, čím nievie prejsť 97% uchádzačov.

Ako to celé prebieha a čo očakávať?

1) Prvé interview bolo asi 10-minútový Skype rozhovor s nejakým Muhamadom, ktorý pravdepodobne len zistuje či viete rozprávať po anglicky. Spýta sa Ča čo robíš, koľko máš času a akú hodinovú sadzbu očakávaš.

64

17 komentárov 4 zdieľania

Páči sa mi to Komentovať Zdieľať

Zobraziť predošlé komentáre (15)



Andrej Gajdoš

Tento mesiac sa chystam vyskúsať Toptal, ale mal by som 2 otázky. 1) Ma vyznam zaoberať sa poslednými lekciami z Codility? Od lekcie 11. mi pridu niektoré úlohy dost hardcore a pri pohovore by som sam na to neprisiel ani kebyže sa rozkrajam.. 2) Aky je... Zobrazit viac

Páči sa mi to 5 r. Upravené



Napište komentár...



Ako to funguje s platbami?

Toptal posiela peniaze každé dva týždne. Neriešite či klient zaplatil, alebo nie. Peniaze Vám prídu aj keby klient nezaplatil, len sa to môže natiahnuť na max. 4 týždňe ak sa nemýlim.

Toptal od Vás nepotrebuje faktúru. Pošlú Vám peniaze kam chcete. Avšak ja vystavujem faktúry, nech má náš daňový úrad radosť a je to všetko legálne.

Aký je vzťah medzi programárom a Toptalom?

Každý kto robí pre Toptal pracuje ako kontraktor. Čiže v slovenskej realite buď ako živnostník, alebo im fakturuje cez vlastnú firmu. Nejedná sa o bežné zamestnanie.

Ako ma kontrolujú či sa neflákam?

Nijako. Ak niekoho treba kontrolovať, tak to nie je vhodný kandidát na prácu na diaľku. Vlastne to nie je vhodný kandidát na žiadnu prácu, ale to je na inú debatu.

Ako komunikujem s klientom?

Toto samozrejme záleží od daného klienta, ale ja používam email , [GitHub](#), [Slack](#) a občas Skype, alebo GoToMeeting.

Ked' ja končím, tak oni začínajú (sú 9 hodín za mnou). Napíšem čo som spravil a dohodneme sa čo sa bude robiť ďalej. Alebo ani to nie ked' mám dosť roboty.

Google Interview Process

Interview Process

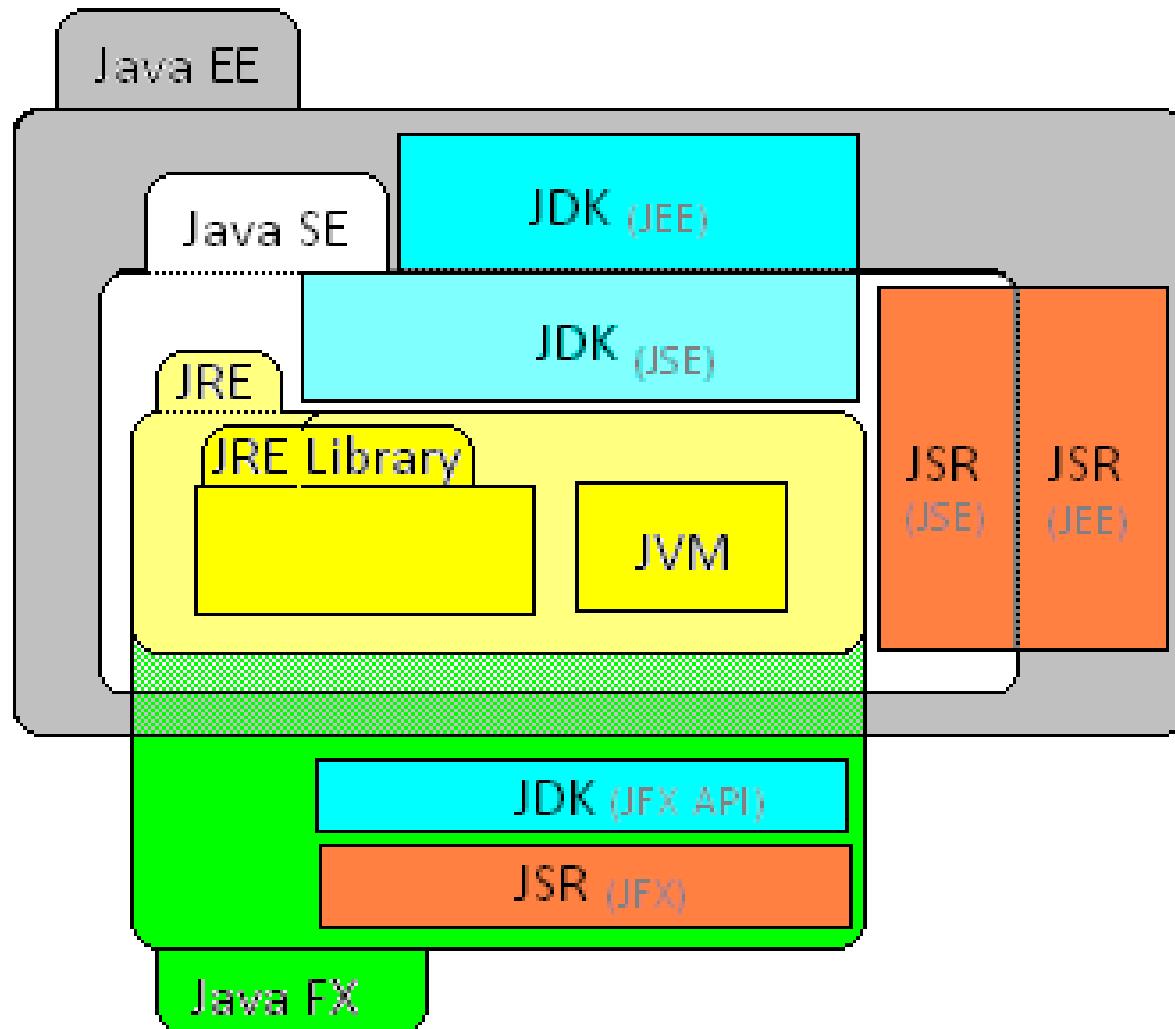
- 1. Recruiter Connect:** Recruiter can contact the candidate based on his/her profiles on LinkedIn etc or if any of his/her known has referred him/her to the company. However, it's always best to message the recruiters via LinkedIn and apply for the roles in the Career page of Google. If the candidate is good in DS & Algo skills it is highly recommended that he/she participate in Google Kickstart, this is Google's hiring contest which happens 6 times in a year. If the performance in those competitions is good the recruiters will contact you easily.
- 2. Interview Rounds:** Google has a total of 7 rounds. First two are telephonic interviews where the interviewer mostly asks one medium or two easy Algo DS problems to the candidate and the candidate has 45 minutes to solve the problems. However if the performance in Kickstart is good, these rounds are skipped and you directly move to the next rounds. Next we have 5 onsite interviews out of which 4 are Algo DS interviews and 1 is Googliness interview, Googliness interview is mostly a behavioral interview.
- 3. After Interviews:** Once the interviews are over, the recruiter will contact you with the feedback of the interviews, if the performance is good and the interviews are cleared your profile goes to the different teams in Google for the team matching round. In the team matching round the team understands your work style and your interests and you can understand their requirements and the work expectations of the team.
- 4. Hired:** Once the team and you both are comfortable and ready to start, the offer letter is prepared and shared with you by the recruiters and you are HIRED!

Interview Rounds

- 1. Telephonic Interviews (Two Rounds)** These are two 45 minute interviews on the phone where the interviewer shares a Google Doc with the candidate and asks either a medium problem or two easy problems of Algorithms and DS. It is expected that the candidate first explains the solution of the problem to the interviewer and then codes the problem on Google Doc within the time of the interview. (Suggestion: Practice writing the code on Google Doc if you have any interview coming up as it is a different experience compared to writing the code in any text editor).
- 2. Algo DS Interviews (Three or Four Rounds)** These are 45 minute interviews where the interviewer shares a Google Doc with the candidate and asks Medium to Hard problems of Algorithms and DS. It is expected that the candidate first explains the solution of the problem to the interviewer and then codes the problem on Google Doc within the time of the interview.
- 3. Googliness Interviews (One Round)** This is a new interview which Google started in 2020. It's mostly the behavioral interview to check the cultural fitness of the candidate in the company.



Java (platforma)



JDK

`javac, jar, javap, etc.`

JRE

`java, javaw, rt.jar, libraries`

JVM

`JIT Compiler`

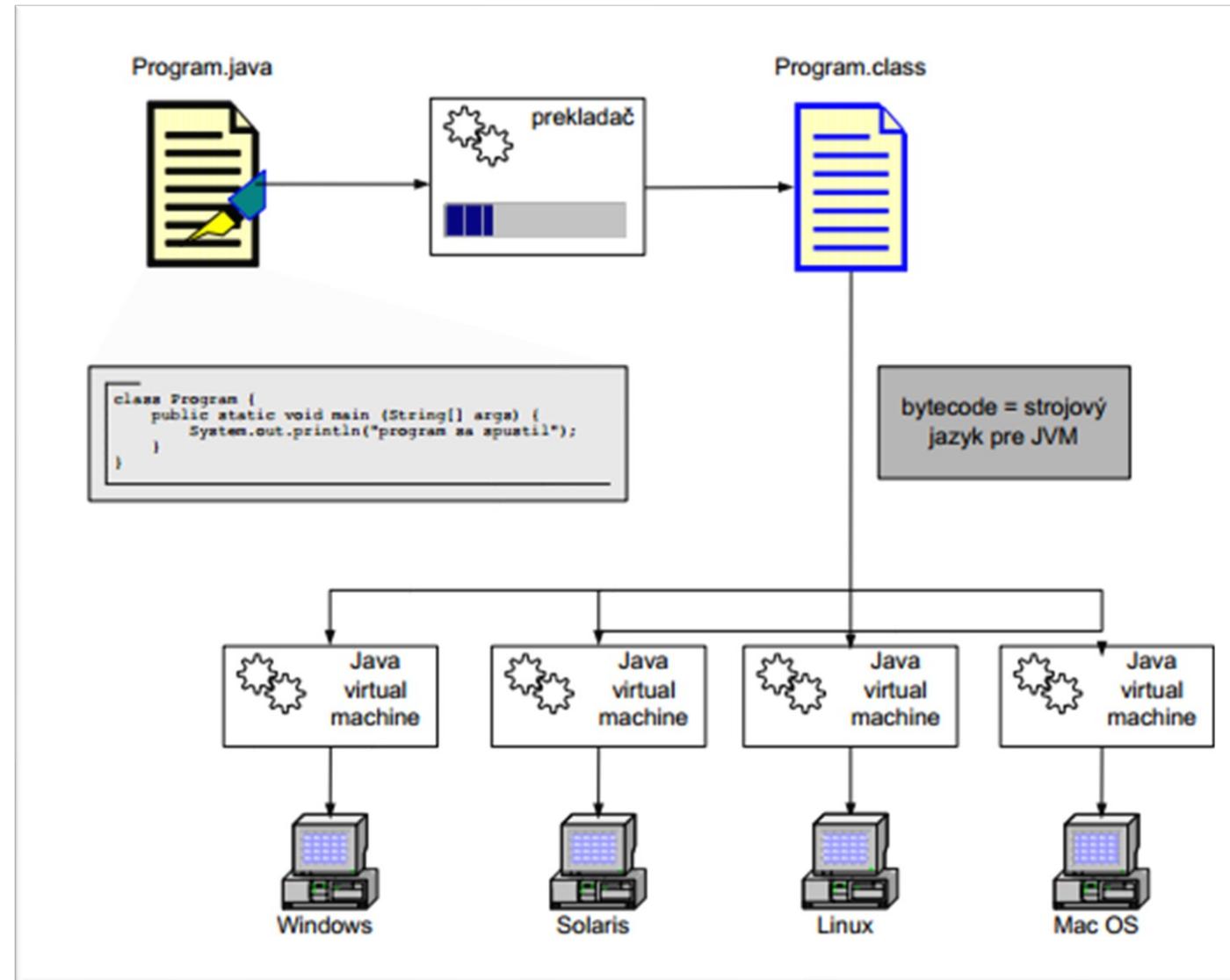
		Java Language											
		java	javac	javadoc	jar	javap	jdeps	Scripting					
JDK	Tools & Tool APIs	Security	Monitoring	JConsole	VisualVM	JMC	JFR						
		JPDA	JVM TI	IDL	RMI	Java DB	Deployment						
		Internationalization		Web Services		Troubleshooting							
JRE	Deployment	Java Web Start			Applet / Java Plug-in								
		JavaFX											
		Swing		Java 2D		AWT	Accessibility						
JRE	User Interface Toolkits	Drag and Drop		Input Methods		Image I/O	Print Service	Sound					
		IDL	JDBC	JNDI	RMI	RMI-IIOP		Scripting					
		Beans	Security		Serialization		Extension Mechanism						
JRE	Integration Libraries	JMX	XML JAXP		Networking		Override Mechanism						
		JNI	Date and Time		Input/Output		Internationalization						
		lang and util											
JRE	Base Libraries	Math		Collections		Ref Objects		Regular Expressions					
		Logging		Management		Instrumentation		Concurrency Utilities					
		Reflection	Versioning		Preferences API		JAR	Zip					
Java Virtual Machine		Java HotSpot Client and Server VM											

Java SE

API

Compact Profiles

Java platforma



Frameworks, JVM Internals, Tools

Java's evolution into 2022: The state of the four big initiatives



Nicolai Parlog | February 19, 2022
Developer Advocate, Oracle

This year will continue the evolution of projects Valhalla, Panama, Loom, and Amber in JDK 18 and JDK 19.

[Download a PDF of this article](#)

This will be a significant year for Java. As is well known, Java 18 (as [JDK 18](#)) will be generally available on March 22, 2022, and Java 19 will be generally available in September. Looking at the bigger picture of the specific JSRs, this year in Java will continue the evolution of four main initiatives: projects Valhalla, Panama, Loom, and Amber.

In this article, you will see the goals of each of these projects, their current state (as of January 2022), and their short-term plans.

Project Valhalla

[Project Valhalla](#) has two goals: an obvious one and a subtle one. The obvious goal is to introduce a new kind of type that “codes like a class, works like an int,” as the mission statement says. The subtle goal is to heal the rift in Java’s type system that separates reference types from primitive types; this will allow generification over *all* types.

Yes, you’ll be able to create an `ArrayList<int>` that’s backed by an `int[]`, with no boxing needed.



Java SE Development Kit 11.0.14

Java SE subscribers will receive JDK 11 updates until at least **September of 2026**.

These downloads can be used for development, personal use, or to run Oracle licensed products. Use for other purposes, including production or commercial use, requires a Java SE subscription or another Oracle license.

JDK 11 software is licensed under the [Oracle Technology Network License Agreement for Oracle Java SE](#).

JDK 11.0.14 [checksum](#)

[Linux](#) [macOS](#) [Solaris](#) [Windows](#)

Product/file description	File size	Download
ARM 64 Debian Package	134.61 MB	jdk-11.0.14_linux-aarch64_bin.deb
ARM 64 RPM Package	140.63 MB	jdk-11.0.14_linux-aarch64_bin.rpm
ARM 64 Compressed Archive	156.99 MB	jdk-11.0.14_linux-aarch64_bin.tar.gz
x64 Debian Package	138.3 MB	jdk-11.0.14_linux-x64_bin.deb
x64 RPM Package	144.48 MB	jdk-11.0.14_linux-x64_bin.rpm
x64 Compressed Archive	160.87 MB	jdk-11.0.14_linux-x64_bin.tar.gz

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Java ME
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Java TV
Community
Java Magazine

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Revised April 20, 1999

1 Introduction**1.1 Why Have Code Conventions****1.2 Acknowledgments****Java SDKs and Tools**

- ❖ [Java SE](#)
- ❖ [Java EE and Glassfish](#)
- ❖ [Java ME](#)
- ❖ [Java Card](#)
- ❖ [NetBeans IDE](#)
- ❖ [Java Mission Control](#)

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- ❖ [Technical Articles](#)
- ❖ [Demos and Videos](#)
- ❖ [Forums](#)
- ❖ [Java Magazine](#)
- ❖ [Developer Training](#)
- ❖ [Tutorials](#)
- ❖ [Java.com](#)

JDK 11

JDK 11 is the open-source reference implementation of version 11 of the Java SE Platform as specified by JSR 384 in the Java Community Process.

JDK 11 reached General Availability on 25 September 2018. Production-ready binaries under the GPL are available from Oracle; binaries from other vendors will follow shortly.

The features and schedule of this release were proposed and tracked via the JEP Process, as amended by the JEP 2.0 proposal. The release was produced using the JDK Release Process (JEP 3).

Features

- 181: Nest-Based Access Control
- 309: Dynamic Class-File Constants
- 315: Improve Aarch64 Intrinsics
- 318: Epsilon: A No-Op Garbage Collector
- 320: Remove the Java EE and CORBA Modules
- 321: HTTP Client (Standard)
- 323: Local-Variable Syntax for Lambda Parameters
- 324: Key Agreement with Curve25519 and Curve448
- 327: Unicode 10
- 328: Flight Recorder
- 329: ChaCha20 and Poly1305 Cryptographic Algorithms
- 330: Launch Single-File Source-Code Programs
- 331: Low-Overhead Heap Profiling
- 332: Transport Layer Security (TLS) 1.3
- 333: ZGC: A Scalable Low-Latency Garbage Collector (Experimental)
- 335: Deprecate the Nashorn JavaScript Engine
- 336: Deprecate the Pack200 Tools and API

Schedule

2018/06/28	Rampdown Phase One (fork from main line)
2018/07/26	Rampdown Phase Two
2018/08/16	Initial Release Candidate
2018/08/30	Final Release Candidate
2018/09/25	General Availability

Last update: 2019/3/19 17:06 UTC

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Caciocavallo
Closures
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Coin
Common VM
Interface
Compiler Grammar

Detroit
Developers' Guide
Device I/O
Duke
Font Scaler
Framebuffer Toolkit
Graal

JDK 17

JDK 17 is the open-source reference implementation of version 17 of the Java SE Platform, as specified by [JSR 390](#) in the Java Community Process.

JDK 17 reached [General Availability](#) on 14 September 2021. Production-ready binaries under the GPL are [available from Oracle](#); binaries from other vendors [will follow shortly](#).

The features and schedule of this release were proposed and tracked via the [JEP Process](#), as amended by the [JEP 2.0 proposal](#). The release was produced using the [JDK Release Process \(JEP 3\)](#).

Features

- 306: [Restore Always-Strict Floating-Point Semantics](#)
- 356: [Enhanced Pseudo-Random Number Generators](#)
- 382: [New macOS Rendering Pipeline](#)
- 391: [macOS/AArch64 Port](#)
- 398: [Deprecate the Applet API for Removal](#)
- 403: [Strongly Encapsulate JDK Internals](#)
- 406: [Pattern Matching for switch \(Preview\)](#)
- 407: [Remove RMI Activation](#)
- 409: [Sealed Classes](#)
- 410: [Remove the Experimental AOT and JIT Compiler](#)
- 411: [Deprecate the Security Manager for Removal](#)
- 412: [Foreign Function & Memory API \(Incubator\)](#)
- 414: [Vector API \(Second Incubator\)](#)
- 415: [Context-Specific Deserialization Filters](#)

JDK 17 will be a long-term support (LTS) release from most vendors. For a complete list of the JEPs integrated since the previous LTS release, JDK 11, please see [here](#).

Schedule

- 2021/06/10 Rampdown Phase One (fork from main line)
- 2021/07/15 Rampdown Phase Two
- 2021/08/05 Initial Release Candidate
- 2021/08/19 Final Release Candidate
- 2021/09/14 General Availability

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Coin
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Interface

JDK 9

The goal of this Project was to produce an open-source reference implementation of the Java SE 9 Platform as defined by JSR 379 in the [Java Community Process](#).

JDK 9 reached [General Availability](#) on 21 September 2017. Production-ready binaries under the GPL are [available from Oracle](#); binaries from other vendors [will follow shortly](#).

The features and schedule of this release were proposed and tracked via the [JEP Process](#), as amended by the [JEP 2.0 proposal](#).

Features

- 102: [Process API Updates](#)
- 110: [HTTP 2 Client](#)
- 143: [Improve Contended Locking](#)
- 158: [Unified JVM Logging](#)
- 165: [Compiler Control](#)
- 193: [Variable Handles](#)
- 197: [Segmented Code Cache](#)
- 199: [Smart Java Compilation, Phase Two](#)
- 200: [The Modular JDK](#)
- 201: [Modular Source Code](#)
- 211: [Elide Deprecation Warnings on Import Statements](#)
- 212: [Resolve Lint and Doclint Warnings](#)
- 213: [Milling Project Coin](#)
- 214: [Remove GC Combinations Deprecated in JDK 8](#)
- 215: [Tiered Attribution for javac](#)
- 216: [Process Import Statements Correctly](#)
- 217: [Annotations Pipeline 2.0](#)
- 219: [Datagram Transport Layer Security \(DTLS\)](#)
- 220: [Modular Run-Time Images](#)
- 221: [Simplified Doclet API](#)
- 222: [jshell: The Java Shell \(Read-Eval-Print Loop\)](#)
- 223: [New Version-String Scheme](#)
- 224: [HTML5 Javadoc](#)
- 225: [Javadoc Search](#)
- 226: [UTF-8 Property Files](#)
- 227: [Unicode 7.0](#)
- 228: [Add More Diagnostic Commands](#)
- 229: [Create PKCS12 Keystores by Default](#)

Installing
Contributing
Sponsoring
Developers' Guide
Vulnerabilities
JDK GA/EA Builds
Mailing lists
Wiki ·IRC
Bylaws · Census
Legal

JEP Process

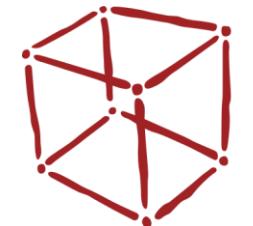
Source code
Mercurial
GitHub

Tools
Mercurial
Git
jtreg harness

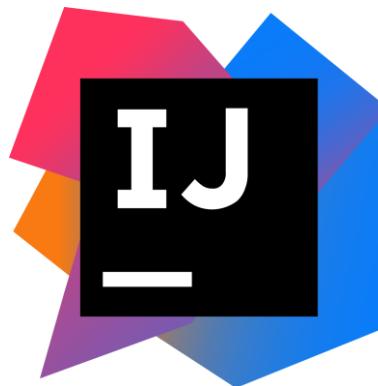
Groups
(overview)
Adoption
Build
Client Libraries
Compatibility &
Specification
Review
Compiler
Conformance
Core Libraries
Governing Board
HotSpot
IDE Tooling & Support
Internationalization
JMX
Members
Networking
Porters
Quality
Security
Serviceability
Vulnerability
Web

Projects
(overview)
Amber
Annotations Pipeline
2.0
Audio Engine
Build Infrastructure
CRaC
Caciocavallo
Closures
Code Tools
Coin
Common VM
Interface

Aké IDE mám použiť?



NetBeans



Visual Studio

eclipse

Integrated development environment

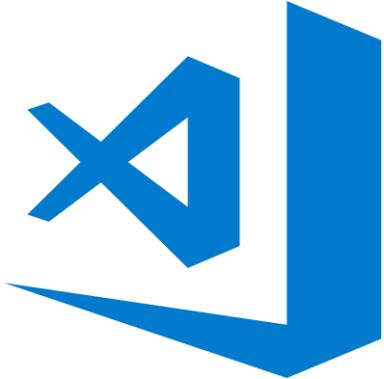
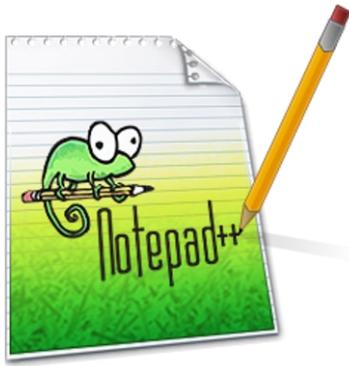
A composite image featuring two women. On the left, a woman with vibrant orange hair is smiling broadly, showing her teeth. On the right, another woman with dark hair and glasses is also smiling. They appear to be in a professional setting, possibly a software development environment.

Je na vás aké IDEčko
použijete

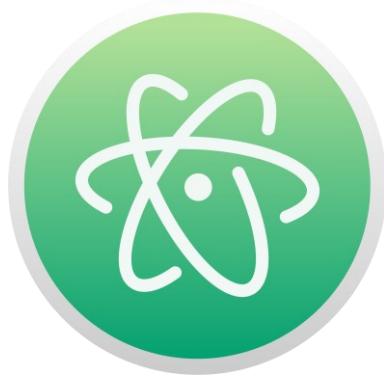
My code in IDE

My output
in terminal

Aký editor mám použiť?



```
:::  
iLE88Dj. :jd88888Dj:  
.LGitE888D.f8GjjjL8888E;  
iE :8888Et. .G888.  
;i E888, ,8888,  
D888, :8888:  
D888, :8888:  
D888, :8888:  
D888, :8888:  
888W, :8888:  
W88W, :8888:  
W88W: :8888:  
DGGD: :8888:  
:8888:  
:W888:  
:8888:  
E888i  
tW88D
```



Dodržujte konvencie, best practices a Code style (Code Guidelines)

	Python	C#	TypeScript	Java
functions & methods	snake_case()	PascalCase()	camelCase()	camelCase()
classes	PascalCase	PascalCase	PascalCase	PascalCase
interfaces	N/A	PascalCase	PascalCase	PascalCase
namespaces	N/A	PascalCase	PascalCase	PascalCase
constants	snake_case	SCREAMING SNAKE CASE	SCREAMING_SNAKE_CASE	SCREAMING_SNAKE_CASE

Google Java Style Guide

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- [7.2 The summary fragment](#)
- [7.3 Where Javadoc is used](#)



Java #4925

před 6 měsíci

How to delay intent starting on Android.

```
public void onStartClicked(){
    hideKeyboard();
    Flow newFlow = Flow.get(selectedOpiFlow);
    //If there is a flow on-going the actionBar acts like an abort otherwise a payment will be executed

    if (activeFlow == null) {
        resultTextField.setText("");
        saveNewAppState();
        startFlow(newFlow);
        abortButtonLayout.setVisibility(View.VISIBLE);
        opiFlowLayout.setVisibility(View.GONE);

        int a=0;
        while (a<9000){
            a++;
        }

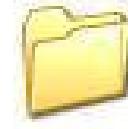
        startAndroid10Intent();
    }
}
```

0 COMMENTS PŘIDAT KOMENTÁŘ

Verzia Javy/JDK



jdk1.6.0_21



jdk1.6.0_29



jre6



jdk1.6.0_26



jdk1.7.0_21



jre7

Čo sa oplatí prečítať?

Slovensko a česko

- Albatrosmedia
- Kopp
- Grada
- Wolters Kluwer
- BEN
- Veda

Zahraničie

- O'Reilly
- Manning
- Packt
- Apress
- Wiley
- No Starch Press

YouTube tutoriály

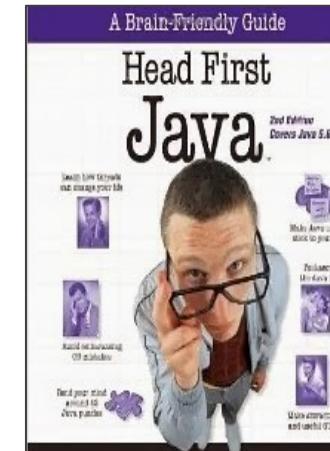
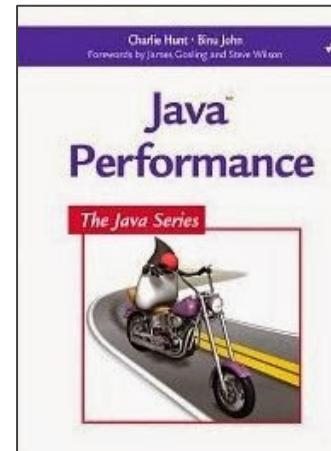
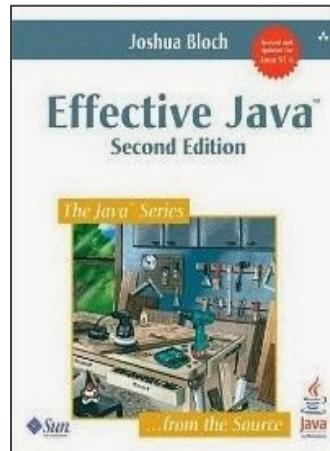
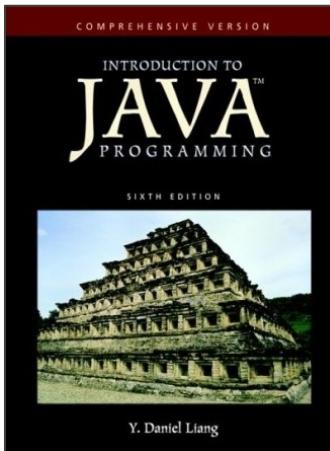
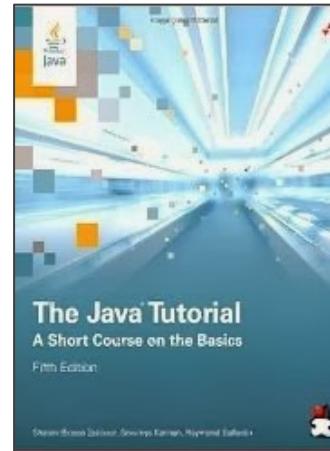
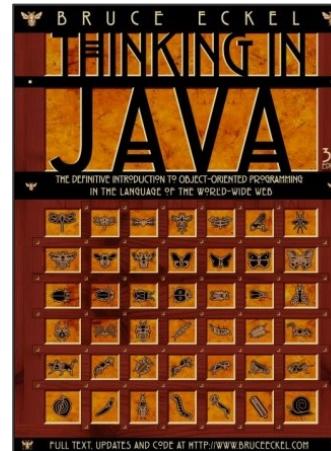
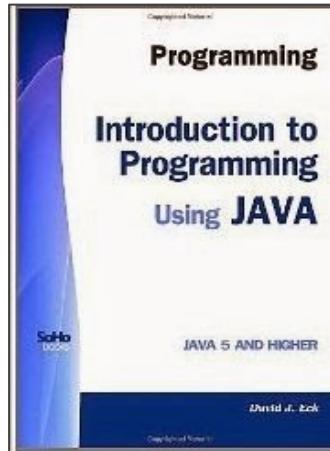
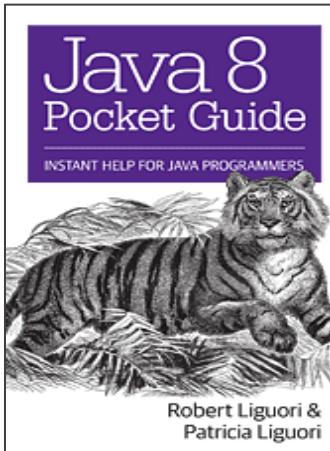
Oracle a O'Reilly

Čo sa oplatí/neoplatí prečítať SK/CZ



Mistrovství a Kuchárka

Čo sa oplatí/neoplatí prečítať EN



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Zdieľať

... Viac



Napísat' príspěvok...

Pridať fotku/vi...

Živé video

Viac



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Fotka/video



Divácka páry



Označiť priat...

...

NOVÁ AKTIVITA ▾



Roland Mondek

10 h

POZVAŤ ČLENOV

+ Zadajte meno alebo e-mailovú adresu...



ČLENOVIA

5 505 členov



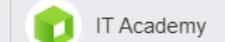
POPIS

Skupina softvérových vývojárov. Táto skupina by mala byť miestom... [Zobraziť viac](#)

TYP SKUPINY

Všeobecné

VAŠE STRÁNKY



IT Academy

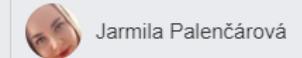


VITA - Virtual It Academy

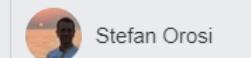
KONTAKTY



Evka Rybárska



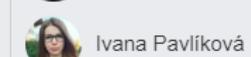
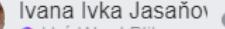
Jarmila Palenčárová



Stefan Orosi



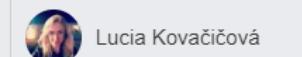
Ivana Ivka Jasaňová



Ivana Pavlíková

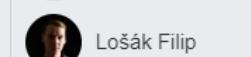


Martin Vanko



Lucia Kovačičová

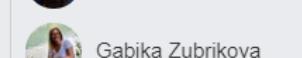
4 h



Lošák Filip



Andrej Nejedlik



Gabika Zubrikova

SKUPINOVÉ KONVERZÁCIE



Vytvoriť novú skupinu

Hľadať



```
52 </div>
53 </body>
54 <script type="text/javascript">
55 <!--
56 var currentImage = "bigImage1";
57 var pages = Math.ceil(photos.length / 9);
58 updatePages();
59 updateAllImages();
60 // document.getElementById('bigImage0').src = 'images/wieksza/' + photos[page * 9];
61 // document.getElementById('bigImage0').style.display = '';
62 changePhotoDescription('1');
63
64
65
66
67
68
69
70
71
72
73
```

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Fotka/video

Anketa

Vybrané



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Táto skupina slúži na dohadzovanie si kŕeftíkov a pre hľadačov programátorov / vývojárov.

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Členov skupiny a ich príspevky bude vidieť ktokoľvek.





Miroslav



JavaGroup

Verejná skupina · 450 členov

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+ Pozvť



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Anketa

Vybrané



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Tags

A tag is a keyword or label that categorizes your question with other, similar questions. Using the right tags makes it easier for others to find and answer your question.

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java

java

Java is a high-level object oriented programming language. Use this tag when you're having problems using or understanding the language itself. Thi...

1827413
questions

419 asked today, 2408 this week

javascript

For questions regarding programming in ECMAScript (JavaScript/JS) and its various dialects/implementations (excluding ActionScript). Note...

2335556
questions

779 asked today, 4877 this week

javafx

The JavaFX platform enables developers to create and deploy Graphical User Interface (GUI) applications that behave consistently...

36355
questions

6 asked today, 50 this week

java-8

for questions specific to Java 8 which is version 8 (internal number 1.8) of the Java platform, released on 18 March 2014. In most cases, you should also...

22076
questions

9 asked today, 40 this week

java-stream

for questions related to the use of the Stream API. It was introduced in Java 8 and supports functional-style operations on streams of values, such...

10293
questions

5 asked today, 26 this week

java-native-interface

The Java Native Interface (JNI) gives both the ability for JVM implementations to run system native code and the ability for native code t...

9404
questions

12 asked this week, 38 this month

rx-java

RxJava – Reactive Extensions for the JVM – a library for composing asynchronous and event-based programs using observable sequence...

6796
questions

6 asked this week, 27 this month

javascript-objects

for questions related to JavaScript objects.

6151
questions

20 asked this week, 118 this month

java.util.scanner

A simple text scanner in the JDK which can parse primitive types and strings using regular expressions.

javafx-8

JavaFX 8 (previously named JavaFX 3) introduces a new API for JavaFX technology. JavaFX 8 supports 3D and brings up a Retina-Display Support. It ...

java-me

Java Platform, Micro Edition, or Java ME, is a Java platform designed for embedded systems.

facebook-javascript-sdk

Facebook's JavaScript SDK provides a rich set of client-side functionality for accessing Facebook's server-side API calls. It can collaborate with any SDK...

Priestor pre vaše otázky.

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