JAVA
Pradmenys

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2018

Paskutinė paskaita

Kursas

80 val. su dėstytoju (9 savaičių)

ND: 100+ val.

Savarankiškas mokymasis +++

~30 užduočių klasėje

8 užduočių ND

10 Finansai

I Testas 20 klausimų

II Testas 42 klausimai

Išmokome!

- Objektinis programavimas
- JDK & Konsole & IDE
- public final static void main(String S[])
- Klasė
- Paketai
- Kintamieji
- Metodai
- java.lang.String
- Primityvus tipai (8)

Išmokome!

- Bloko sakinys
- Priskyrimas
- Operatoriaus sąvoka
- Matematiniai operatoriai
- Didinimas/mažinimas vienetu
- Lyginimo operatoriai
- Loginiai operatoriai
- Tipų konvertavimas ir palyginimas
- Sąlygos sakinys if-else, Switch sakinys
- Metodo iškvietimas

Išmokome!

- Finansai/Biudžetas (analyses, design, workflow)
- Random/Scanner/Math
- Masyvai
- Ciklai: while|do-while|for
- Class&Object in Java
- Java klasių savybės
- enum tipas
- Duomenų apgauba
- Paveldimumas
- Polimorfizmas
- Perklojimas/Perrašymas

Išmokome!

- Klasės objekto (egzemplioriaus) sukūrimas
- new
- GC
- Programoje apibrėžtus (nuorodos) tipai
- Klasės laukų inicializacija
- Constructors
- "this()" išraiška.
- Static modifikatorius & instance member
- “final” keyword
- byte, short, int, long, float, double, boolean, char

Išmokome!

- “Tankas”
- Objekto/Klasės inicijavimo blokai: {}, static { }
- Initialize Java Array In One Statement testArray = {5, 7, 11, 13, 17}
- Klasės narių pasiekiamumas (panaudojimas) private, public, protected, (default)
- Metodu perkrova
- Duomenų apsauga
- Duomenų apgauba
- Paveldimumas
- Perrašomi metodai ir kintamieji

Išmokome!

- Specialūs kintamieji: null, this, super
- java.lang.Object
- Klasių hierarchija
- Plečiamumo problemos
- Polimorfizmas
- abstract
- interface
- extends
- implements
- Išimčių apdorojimas
- throw throws try catch

Išmokome!

- try-final
- Throwable
- Exception & RuntimeException
- ArrayIndexOutOfBoundsException
- ClassCastException
- NullPointerException
- NumberFormatException
- Vidinės klasės
- Vidinė klasė & Statinė vidinė klasė
- Lokali vidinė klasė
- Bevardės (anonymous) vidinės klasės

Išmokome!

- GUI sąmprata
- AWT
- Swing
- JApplet
- JOptionPane
- public void addActionListener(ActionListener a){}
- Išdėstymo valdymas
- BorderLayout
- BoxLayout
- FlowLayout
- GridLayout

Išmokome!

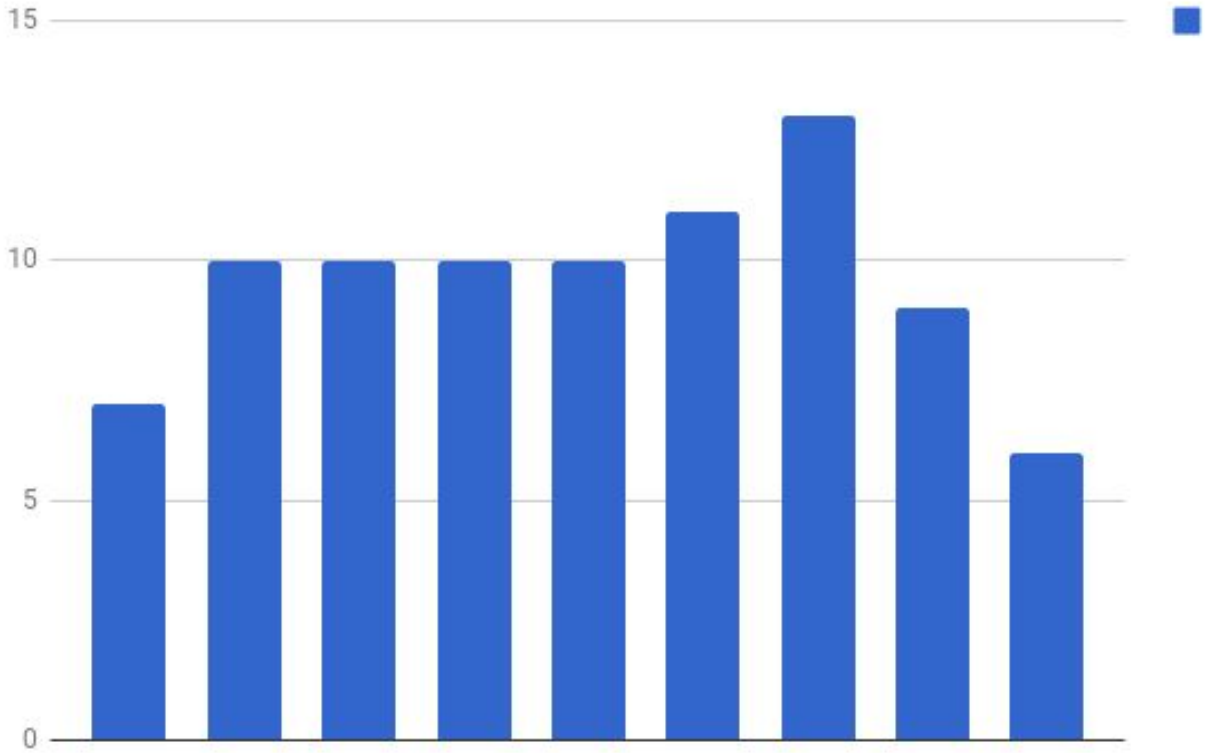
- JUnit testai
- Time & Date Representation in Java
  - java.util.Date
  - java.text.SimpleDateFormat
  - java.util.GregorianCalendar
- System.currentTimeMillis()
- LocalDate Contains just a date
- LocalTime Contains just a time
- LocalDateTime Contains both a date and time
- Java vararg
- Java Collection’s
- Set
- Map
- List

Išmokome!

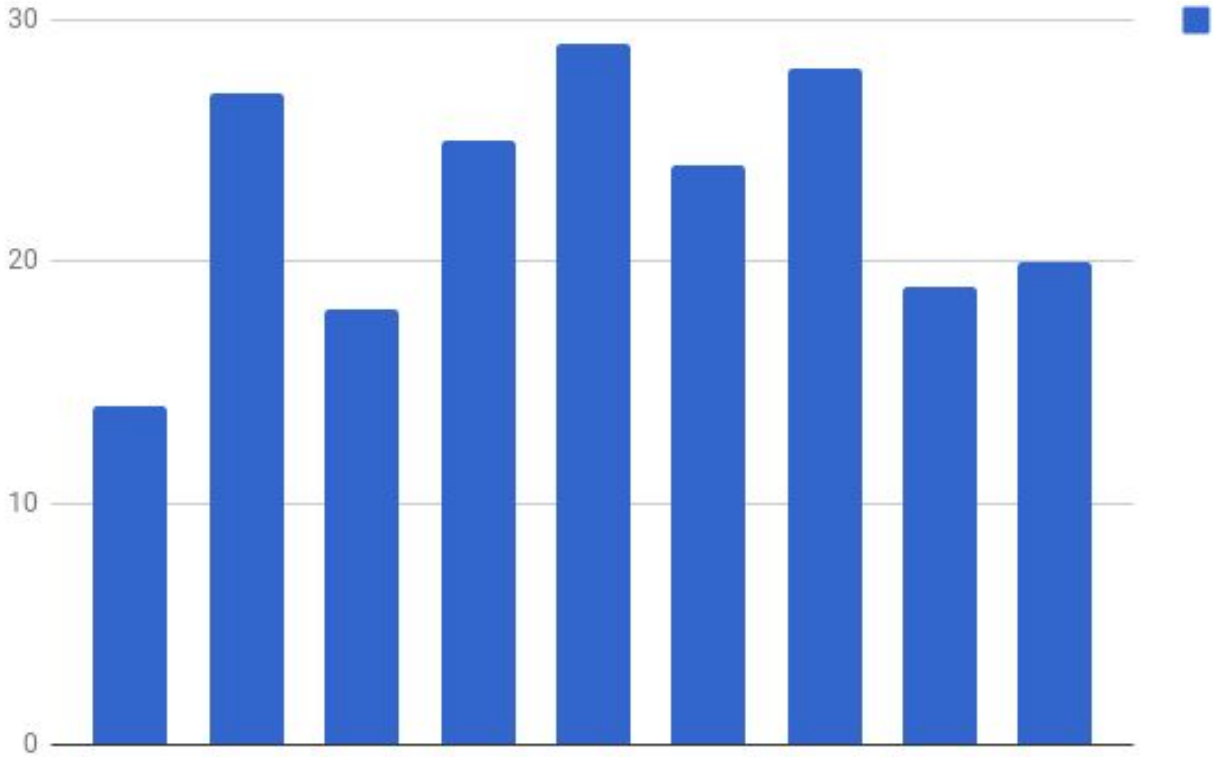
- new ArrayList<>()
- Set<String> kolekcija = new HashSet<>()
- HashMap
- TreeMap
- Iterator
- Iterable
- for each
- StringBuilder
- StringBuffer

Rezultatai

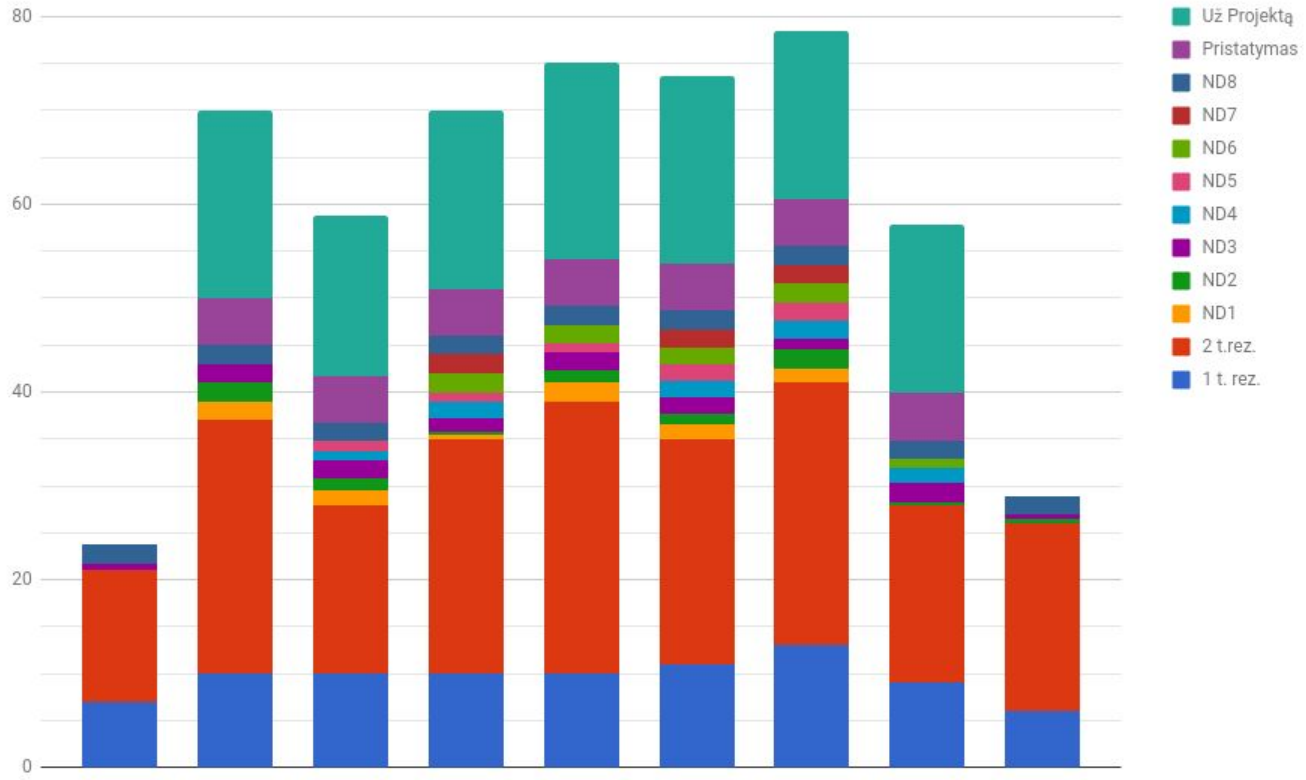
I Testo teisingi atsakymai



II Testo teisingi atsakymai



Bendras


80
60
40
20
0
Už Projektą
Pristatymas
ND8
ND7
ND6
ND5
ND4
ND3
ND2
ND1
2 t.rez.
1 t. rez.

String again!

Exadel

Innovation in Software Engineering

www.exadel.com

You need to know

Exadel is a software engineering company that offers custom development services with R&D centers in North America and Eastern Europe. Unlike traditional IT outsourcers, Exadel offers the specialized skills and product-development culture required to meet the needs of the most innovative enterprises.

Reikalavimai Java Programuotojui

- Java basic libraries
- OOP principle
- Java Reflection
- Threading technology
- Collections
- User interface technology (Swing, Print service, Drag n Drop)
- JUnit
- Java for network programming
- Experience with Java (Enterprise Edition) EE
  - Web component development (Servlets, JSP, JSF);
  - Business component development (EJB, MDB);
  - Java Persistence (JPA, JTA);
  - Web Services (SOAP, REST);
  - Java Message Service (JMS).

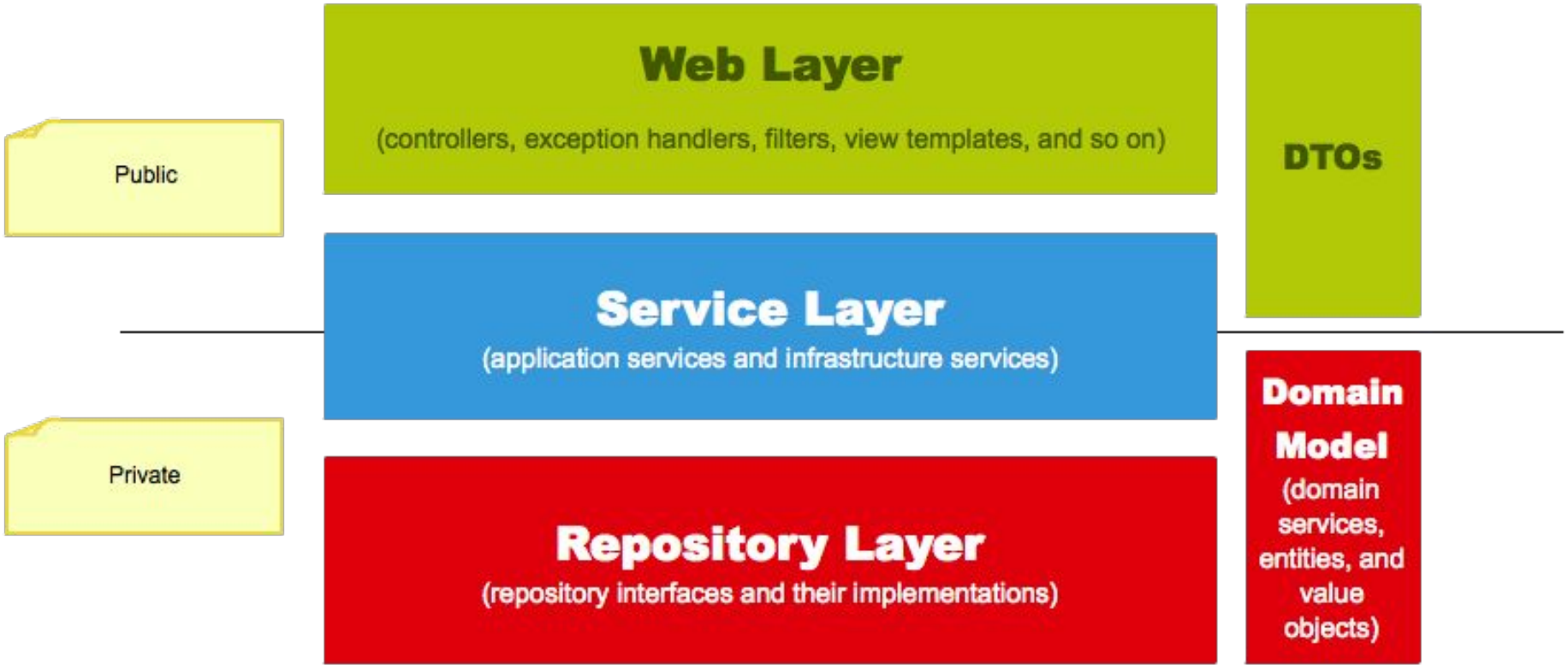
Reikalavimai Java Programuotojui

- Familiarity with design patterns:
  - Classic software design patterns;
  - Java EE design patterns;
  - Anti-pattern.
- Experience with Java frameworks, such as:
  - **Spring***
  - Hibernate
  - *Guava*
  - *Java EE*
  - *Play*
  - Java testing frameworks (Junit, Mockito, Cactus and etc.)
  - Java logging frameworks (Log4J, SLF4J, Logback and etc.)
- Experience with build automatization code management tools
  - Maven
  - Git

Reikalavimai Java Programuotojui

- Web containers (Tomcat, Jetty and etc.)
- Application Servers (JBoss, GlassFish and etc.)
- Software testing methodologies
- Test-driven software development process
- Understanding of Continuous integration and Continuous Delivery concepts
- Web Standards, Accessibility, and command of Semantic markup (XHTML, HTML5).
- Experience with a variety of Database Systems, such as MySql, Oracle, PostgreSQL, MongoDB, NoSQL and etc.
- SCRUM/ Agile development methodologies
- Experience using source code control systems, such as Git, Subversion, or CVS

Next?


Web Layer
(controllers, exception handlers, filters, view templates, and so on)
DTOs
Public
Service Layer
(application services and infrastructure services)
Domain Model
(domain services, entities, and value objects)
Private
Repository Layer
(repository interfaces and their implementations)

JDBC

http://www.slideshare.net/tedionn/jdbc-26158892

http://www.slideshare.net/kerneltraining/advance-java-presentation-demo

http://www.javatpoint.com/example-to-connect-to-the-mysql-database

https://www.tutorialspoint.com/jdbc/jdbc-sample-code.htm

http://www.mkyong.com/tutorials/jdbc-tutorials/

maven & gradle

- https://maven.apache.org/what-is-maven.html
- https://maven.apache.org/guides/introduction/introduction-to-the-pom.html
- https://www.youtube.com/watch?v=m_2rUF6GWj8
- https://www.youtube.com/watch?v=q0pFuo8Ainw
- http://www.slideshare.net/sandeepchawla/maven-introduction

Example Maven Goals

- To invoke a Maven build you set a lifecycle “goal”
- mvn install
  - Invokes generate* and compile, test, package, integration-test, install
- mvn clean
  - Invokes just clean
- mvn clean compile
  - Clean old builds and execute generate*, compile
- mvn compile install
  - Invokes generate*, compile, test, integration-test, package, install
- mvn test clean
  - Invokes generate*, compile, test then cleans

Spring boot

https://www.google.lt/search?q=**spring+boot+for+beginners**&oq=spring+boot+for+beginners&aqs=chrome..69i57j0l2.10012j0j7&sourceid=chrome&ie=UTF-8

https://www.youtube.com/watch?v=PSP1-2cN7vM

Javaspark

Spark - A micro framework for creating web applications in Java 8 with minimal effort

http://sparkjava.com/

```
import static spark.Spark.*;

public class HelloWorld {
    public static void main(String[] args) {
        get("/hello", (req, res) -> "Hello World");
    }
}
```

http://localhost:4567/hello

Spring Framework

The Spring Framework is a Java platform that provides comprehensive infrastructure support for developing Java applications. Spring handles the infrastructure so you can focus on your application.

Spring enables you to build applications from "plain old Java objects" (POJOs) and to apply enterprise services non-invasively to POJOs. This capability applies to the Java SE programming model and to full and partial Java EE.

https://spring.io/

Apache Tomcat®

http://tomcat.apache.org/

The Apache Tomcat® software is an open source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket technologies. The Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket specifications are developed under the Java Community Process.

JSP

JavaServer Pages (**JSP**) is a technology that helps software developers create dynamically generated web pages based on HTML, XML, or other document types. Released in 1999 by Sun Microsystems, **JSP** is similar to PHP and ASP, but it uses the Java programming language.

1. http://www.tutorialspoint.com/articles/run-your-first-jsp-program-in-apache-tomcat-server
2. https://tomcat.apache.org/tomcat-6.0-doc/appdev/sample/
3. http://www.srccodes.com/p/article/2/JSP-Hello-World-Program-using-Eclipse-IDE-and-Tomcat-web-server
4. https://blog.udemy.com/apache-tomcat-tutorial/
5. https://www.youtube.com/watch?v=3L2xOUOlv0Y
6. https://www.ntu.edu.sg/home/ehchua/programming/java/JSPByExample.html
7. http://www.javatpoint.com/creating-jsp-in-eclipse-ide
8. https://www.youtube.com/watch?v=3o0lQkyNuGo
9.