



Введение в Java



Давайте познакомимся



Как тебя зовут?



Как ты начал программировать?



Какое твое любимое приложение(игра)?



Мои ответы



Винокур Андрей
Евгеньевич



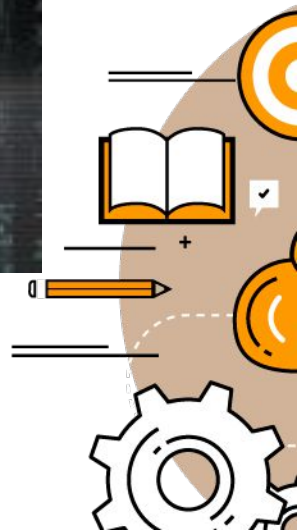
Олимпиады по
программированию



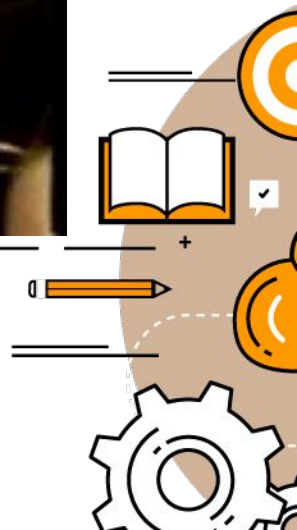
FIFA



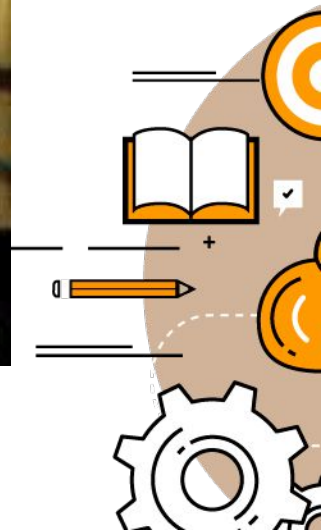
Теперь вы...



Кто такие программисты?



Что такое программирование?



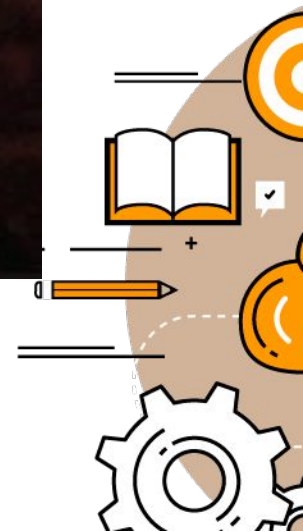
Миф №1: программист работает с компьютерами



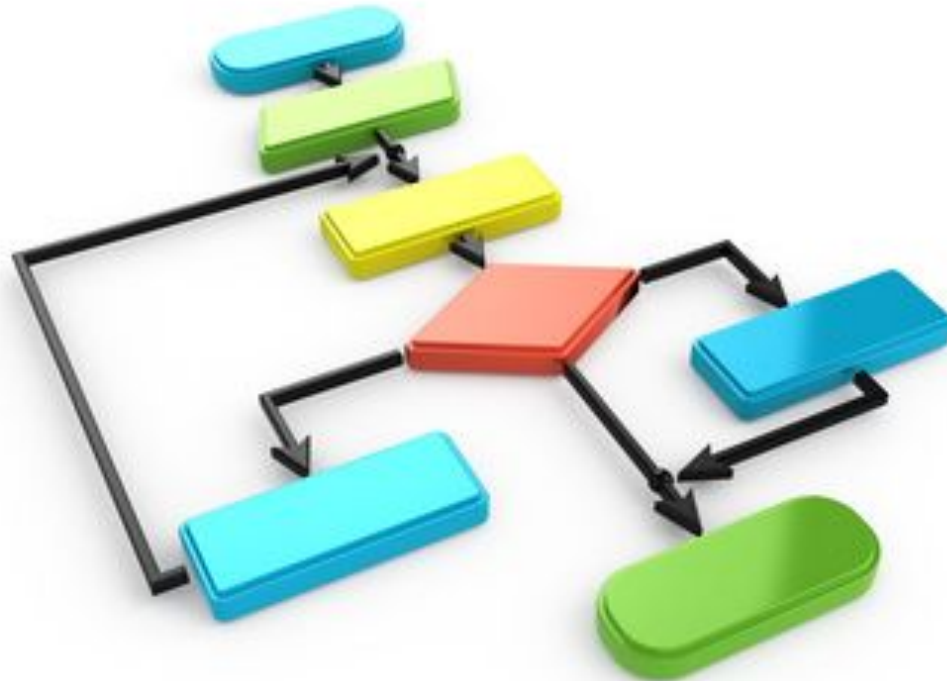
Миф №1: программист работает с компьютерами



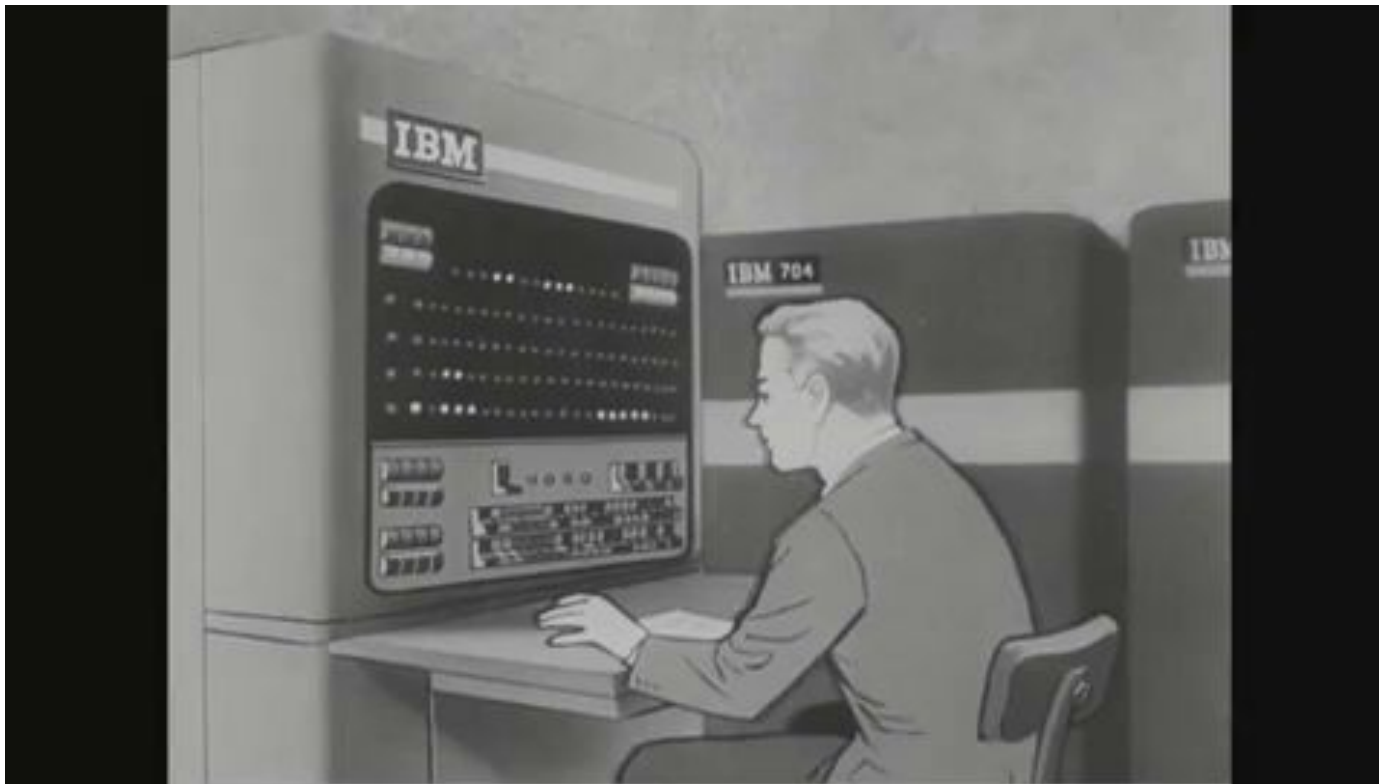
Миф №2: машина умеет думать



Миф №3: язык программирования нужен для составления алгоритмов



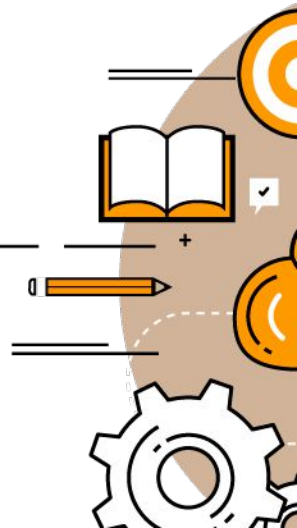
Миф №4: программирование — это скучно



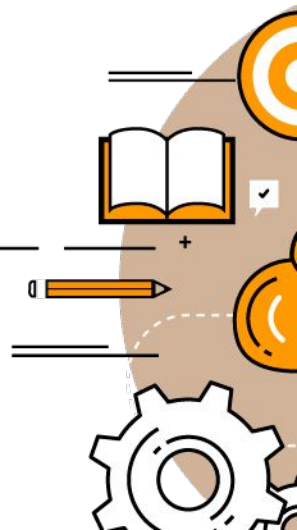




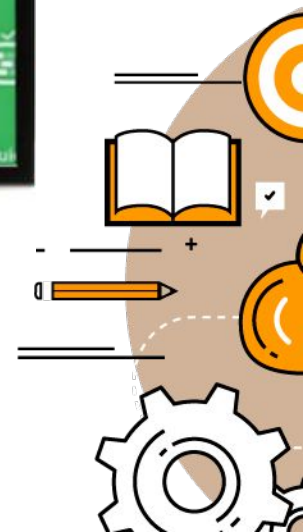
Java — объектно-ориентированный язык программирования, разработанный компанией Sun Microsystems. Приложения Java обычно транслируются в специальный байт-код, который выполняет виртуальная машина Java (*Java Virtual Machine, JVM*). В свою очередь, JVM может быть установлена буквально на любое устройство, что обеспечивает кроссплатформенность Java-программ. Дата официального выпуска языка — 23 мая 1995 года.



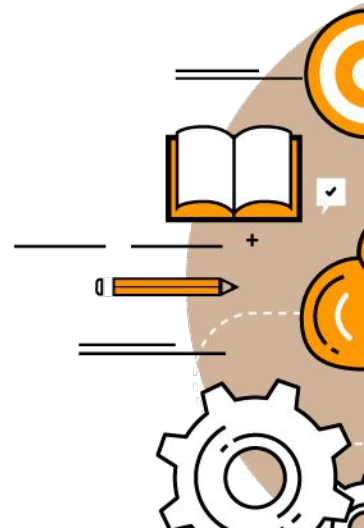
3 миллиарда мобильных телефонов работают на Java



А также 125 000 000 телевизоров
и каждый Blu-Ray проигрыватель



Большинство бытовой техники использует Java





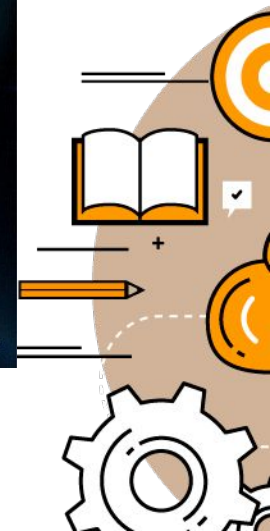
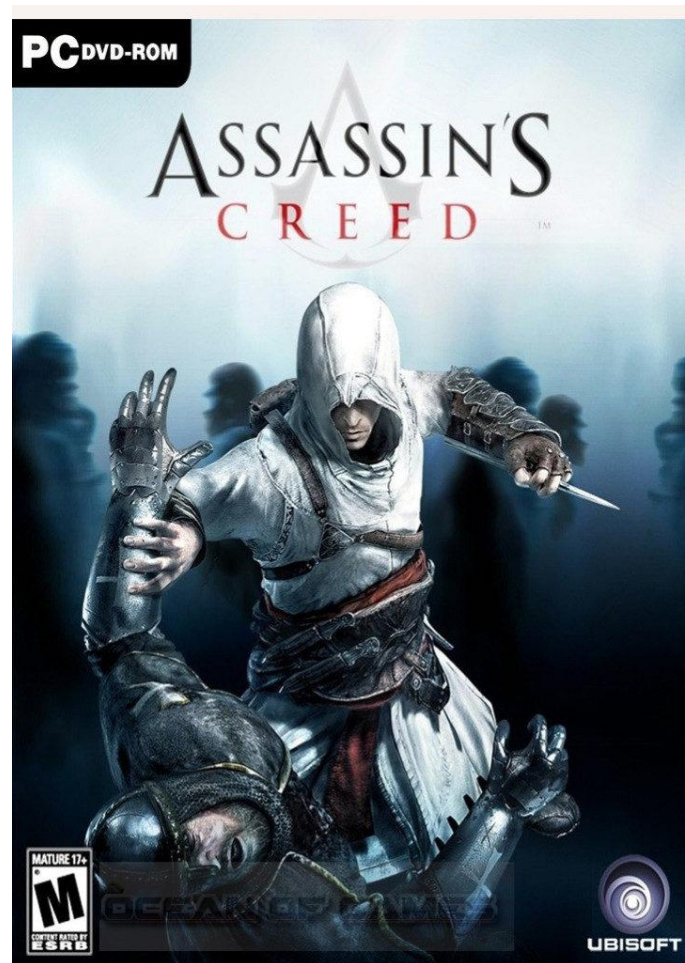
Java занимает второе место среди самых популярных языков программирования. Первое место отдано языку С.



Средняя зарплата Java-разработчика 83 975 долларов в год. По всему миру насчитывается около 9 миллионов Java-программистов.



Игры написанные на Java





Аппаратное и программное обеспечение



Операционная система



1.0 (1985)



3.1 (1992)



95 (1995)



XP (2001)



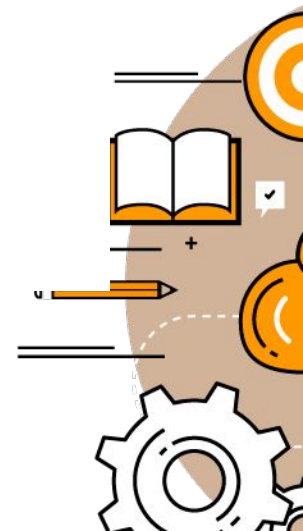
Vista (2006)



7 (2009)



8 (2012)

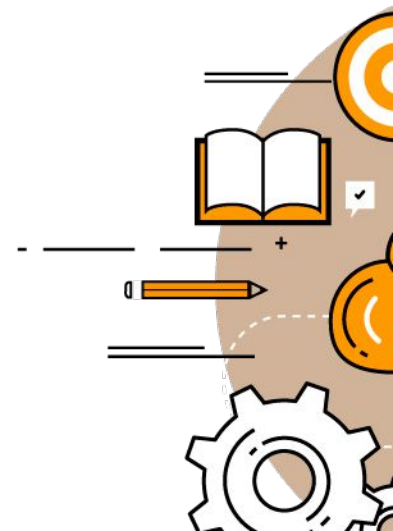


Преимущества Java



JVM

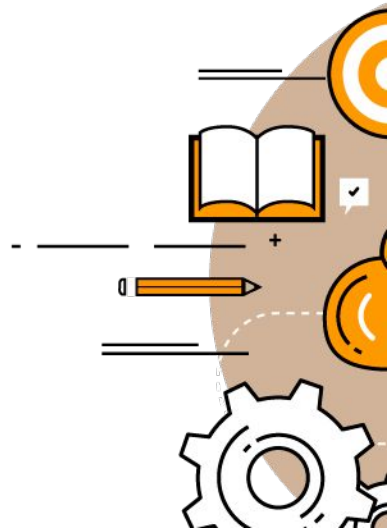
Во-первых, одна и та же программа Java может быть запущена (работать) без каких-либо изменений на различных компьютерах, например PC, Apple или других платформах. Фактически программы, написанные на Java даже не знают, на каком компьютере они выполняются, так как они выполняются внутри специальной программной оболочки, которая называется виртуальная машина JVM (Java Virtual Machine).



Бесплатные библиотеки Java



Цена



Чтобы создать работающую программу на Java необходимо пройти через три следующих шага:



Написать программу на Java и сохранить ее на диск.



Выполнить компиляцию программы, чтобы перевести ее с языка Java в специальный байт-код, который понимает виртуальная машина JVM.



Запустить программу.



```

H:INTRO  PAGE 1 LINE 9 COL 11          INSERT ON
      <<<      M A I N  M E N U      >>>

--Cursor Movement--  | -Delete- |  -Miscellaneous- |  -Other Menus-
^S char left ^D char right | ^G char | ^I Tab ^B Reform | (from Main only)
^A word left ^F word right | DEL chr lf | ^V INSERT ON/OFF | ^J Help ^K Block
^E line up ^X line down | ^T word rt | ^L Find/Replce again | ^Q Quick ^P Print
      --Scrolling-- | ^Y line | RETURN End paragraph | ^O Onscreen
^Z line down ^W line up | | ^N Insert a RETURN |
^C screen up ^R screen down | | ^U Stop a command |
!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----R

```

1. Introducing WordStar

WordStar is highly flexible and very visible. Watch the screens as you give commands, and information in various parts of the screen will guide you. You won't see all the information all the time, but it will be there when you need it.

WHERE YOU ARE

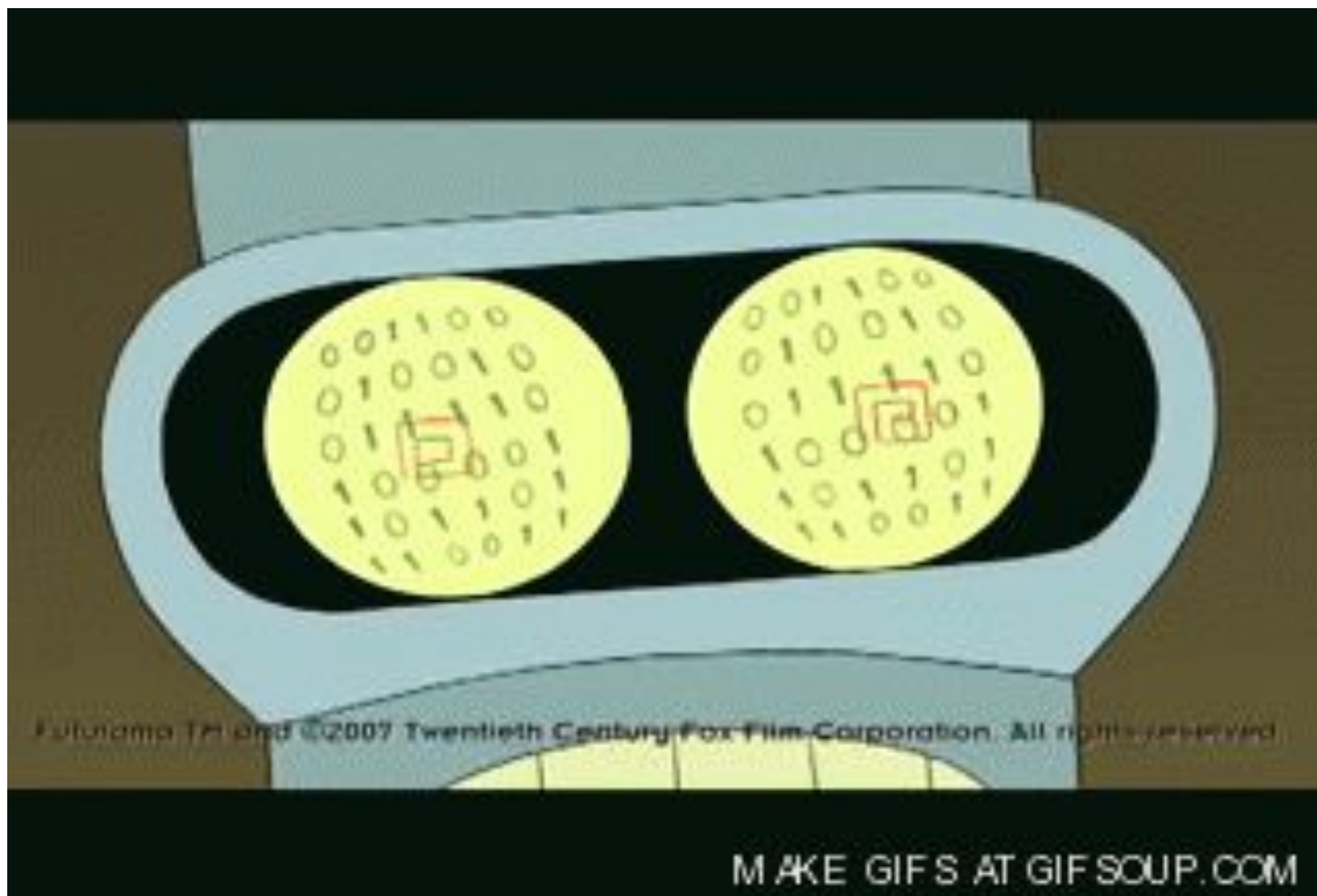
The seven WordStar menus are your greatest aids. They are like signposts at the top of your screen, showing you where you are.

```

1HELP  2INDENT 3SET LM 4SET RM 5UNDLIN 6BLDFCE 7BEGBLK 8ENDBLK 9BEGFIL 10ENDFIL

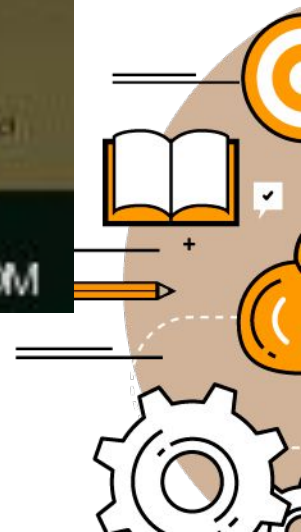
```







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NetBeans with JDK 8

Java Platform, Standard Edition

Java SE 9.0.4
Java SE 9.0.4 includes important bug fixes. Oracle strongly recommends that all Java SE 9 users upgrade to this release.
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JRE
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Which Java package do I need?

- Software Developers: JDK** (Java SE Development Kit). For Java Developers. Includes a

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Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

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- [Java Developer Day hands-on workshops \(free\) and other events](#)
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JDK 9.0.4 [checksum](#)

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Windows	375.56 MB	jdk-9.0.4_windows-x64_bin.exe
Solaris SPARC	206.97 MB	jdk-9.0.4_solaris-sparcv9_bin.tar.gz

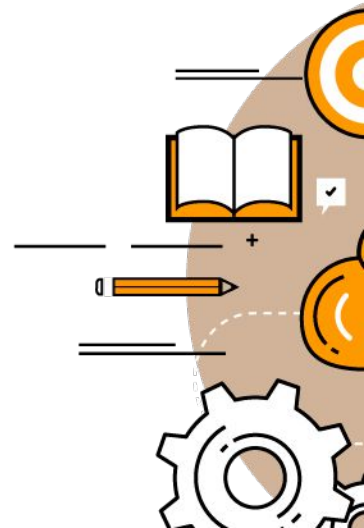
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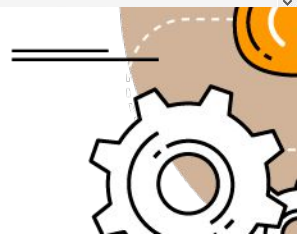
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2018/01/24

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development environment that
runs in the cloud.

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File: **eclipse-inst-win64.exe** [SHA-512](#)

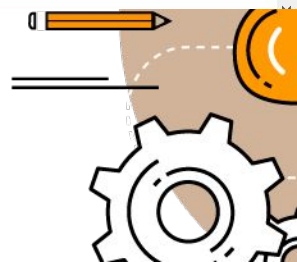
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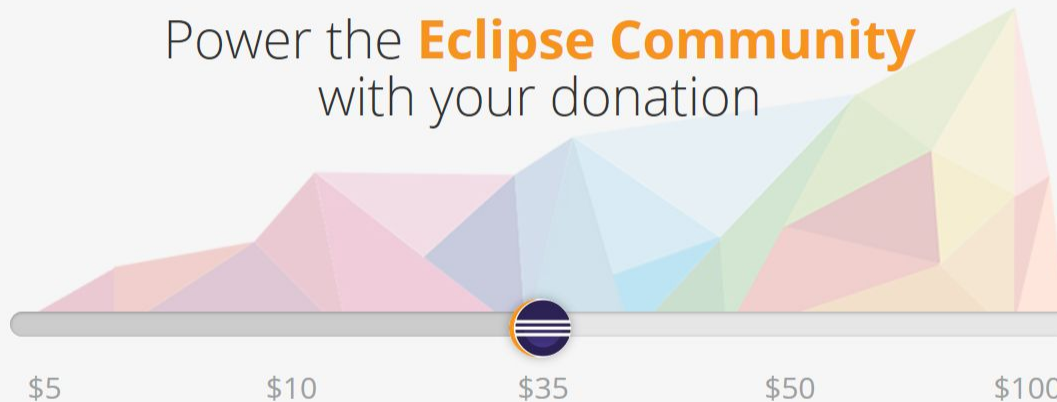
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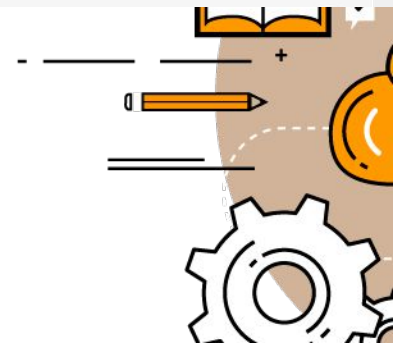
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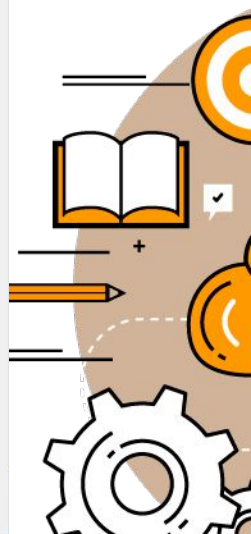
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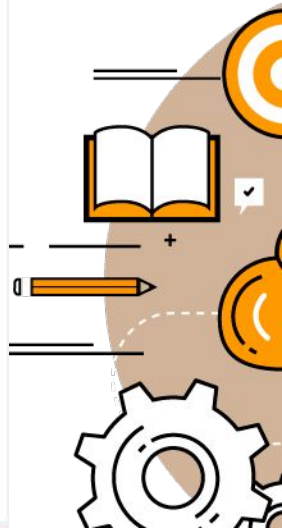
Installation Folder

D:\java-oxygen



- ☒ create start menu entry
- ☒ create desktop shortcut

 **INSTALL**






eclipse

December 2017



 Eclipse Launcher



Select a directory as workspace

Eclipse uses the workspace directory to store its preferences and development artifacts.

Workspace:

C:\Users\Lenovo\eclipse-workspace



Browse...

☐ Use this as the default and do not ask again

Launch

Cancel





Welcome to the Eclipse IDE for Java Developers



Workbench

**Review IDE configuration settings**

Review the IDE's most fiercely contested preferences

**Create a Hello World application**

A guided walkthrough to create the famous Hello World in Eclipse

**Create a new Java project**

Create a new Java Eclipse project

**Checkout projects from Git**

Checkout Eclipse projects hosted in a Git repository

**Import existing projects**

Import existing Eclipse projects from the filesystem or archive

**Launch the Eclipse Marketplace**

Enhance your IDE with additional plugins and install your Marketplace favorites

**Open an existing file**

Open a file from the filesystem

**Overview**

Get an overview of the features

**Tutorials**

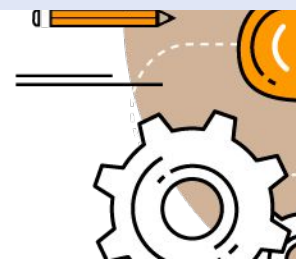
Go through tutorials

**Samples**

Try out the samples

**What's New**

Find out what is new

☒ Always show Welcome at start up

New	Alt+Shift+N >	Java Project
Open File...		Project...
Open Projects from File System...		Package
Close	Ctrl+W	Class
Close All	Ctrl+Shift+W	Interface
Save	Ctrl+S	Enum
Save As...		Annotation
Save All	Ctrl+Shift+S	Source Folder
Revert		Java Working Set
Move...		Folder
Rename...	F2	File
Refresh	F5	Untitled Text File
Convert Line Delimiters To	>	Task
Print...	Ctrl+P	JUnit Test Case
Import...		Example...
Export...		Other... Ctrl+N
Properties	Alt+Enter	
Switch Workspace	>	
Restart		
Exit		

Create a Java Project

Create a Java project in the workspace or in an external location.



Project name:

☒ Use default location

Location:

[Browse...](#)

JRE

☒ Use an execution environment JRE:

☐ Use a project specific JRE:

☐ Use default JRE (currently 'jre1.8.0_151')

[Configure JREs...](#)

Project layout

☐ Use project folder as root for sources and class files

☒ Create separate folders for sources and class files

[Configure default...](#)

Working sets

☐ Add project to working sets

[New...](#)

Working sets:

[Select...](#)



< Back

Next >

Finish

Cancel



eclipse-workspace - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help



Package Explorer

▼ Hello_world
 > JRE System Library [JavaSE-1.8]
 src

- New >
 - Open in New Window
 - Open Type Hierarchy F4
 - Show In Alt+Shift+W >
 - Copy Ctrl+C
 - Copy Qualified Name
 - Paste Ctrl+V
 - Delete Delete
 - Remove from Context Ctrl+Alt+Shift+Down
 - Build Path >
 - Source Alt+Shift+S >
 - Refactor Alt+Shift+T >
 - Import...
 - Export...
 - Refresh F5
 - Assign Working Sets...
 - Coverage As >
 - Run As >
 - Debug As >
 - Validate
 - Restore from Local History...
 - Maven >
 - Team >
 - Compare With >
 - Properties Alt+Enter
- Java Project
 - Project...
 - Package
 - Class**
 - Interface
 - Enum
 - Annotation
 - Source Folder
 - Java Working Set
 - Folder
 - File
 - Untitled Text File
 - Task
 - JUnit Test Case
 - Example...
 - Other... Ctrl+N

Task List



Find 🔍 All Active

📘 **Connect Mylyn**

[Connect](#) to your task and A

📘 Outline

An outline is not available.

Javadoc Declaration

Description

Resource

Path

Location

Type

Java Class

Create a new Java class.



Source folder: Hello_world/src

Browse...

Package: print

Browse...

☐ Enclosing type:

Browse...

Name: HelloWorld

Modifiers: ☒ public ☐ package ☐ private ☐ protected☐ abstract ☐ final ☐ static

Superclass: java.lang.Object

Browse...

Interfaces:

Add...

Remove

Which method stubs would you like to create?

☐ public static void main(String[] args)☐ Constructors from superclass☒ Inherited abstract methodsDo you want to add comments? (Configure templates and default value [here](#))☐ Generate comments

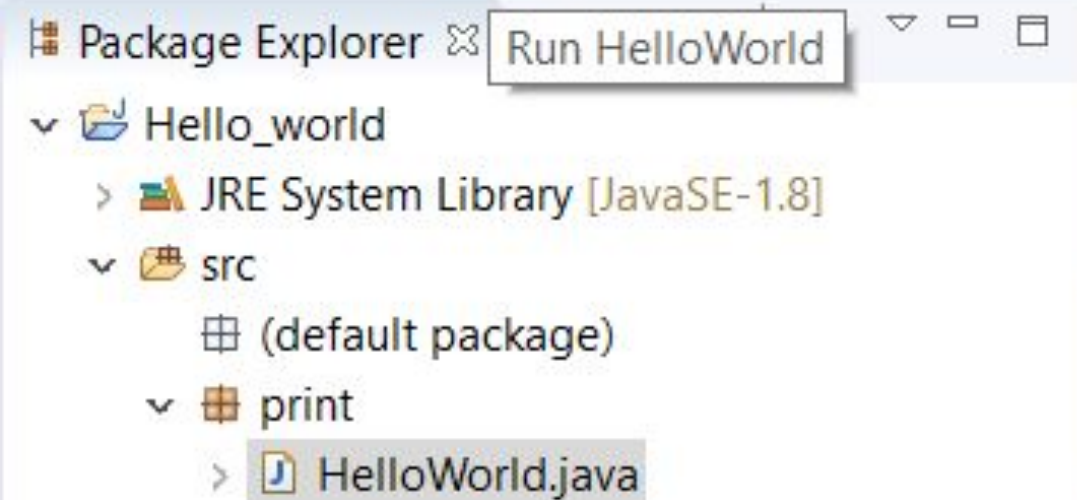
Finish

Cancel



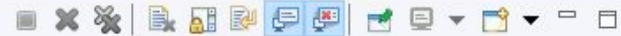
```
1 package print;
2
3 public class HelloWorld {
4     public static void main(String[] args) {
5         System.out.println("Hello World");
6     }
7 }
8
```





```
HelloWorld.java
1 package print;
2
3 public class HelloWorld {
4     public static void main(String[] args) {
5         System.out.println("Hello World!");
6     }
7 }
8
```


Problems @ Javadoc Declaration Console



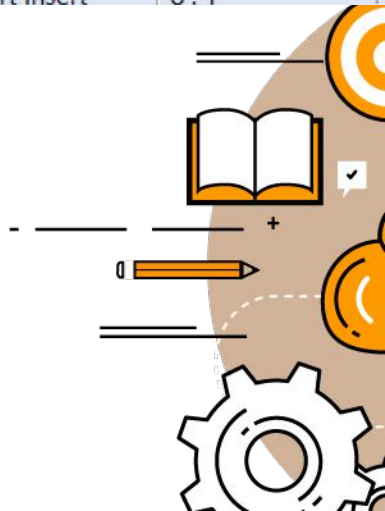
<terminated> HelloWorld [Java Application] C:\Program Files\Java\jre1.8.0_151\bin\javaw.exe (26 янв. 2018 г., 12:31:55)

Hello World

Writable

Smart Insert

8 : 1



eclipse-workspace - Hello_world/src/print/HelloWorld.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- ▼ Hello_world
 - ▼ JRE System Library [JavaSE-1.8]
 - ▼ src
 - (default package)
 - ▼ print
 - ▼ HelloWorld.java

HelloWorld.java

```
1 package print;
2
3 public class HelloWorld {
4     public static void main(String[] args) {
5         System.out.println("Hello World");
6     }
7 }
8
```

Quick Access

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Find All Activate...

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Outline

- print
- ▼ HelloWorld
 - main(String[]) : void

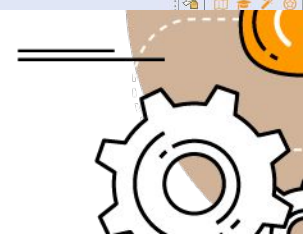
Problems Javadoc Declaration Console

<terminated> HelloWorld [Java Application] C:\Program Files\Java\jre1.8.0_151\bin\javaw.exe (26 янв. 2018 г., 12:31:55)
Hello World

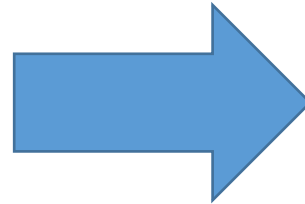
Writable

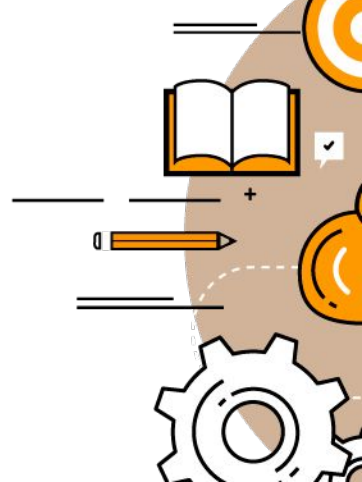
Smart Insert

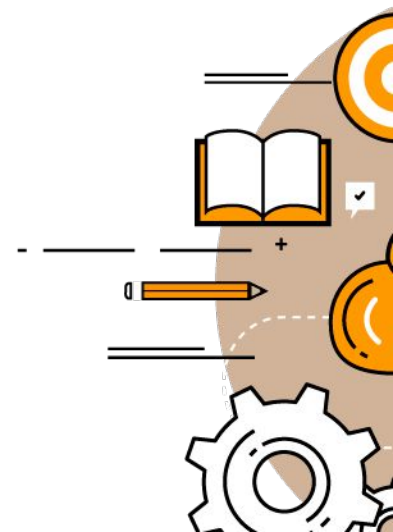
8 : 1



```
C:\practice>javac HelloWorld.java  
C:\practice>java HelloWorld  
Hello World  
C:\practice>_
```



[illegible]





```
<terminated> HelloWorld [Java Application] C:\Program Files\Java\jre1.8.0_151\bin\javaw.exe (26 янв. 2018 г., 13:12:06)
```

Домашняя работа

Разработать программу которая
выводит в консоль какое-нибудь
изображение в консоль

