

Odisee
DE CO-HOGESCHOOL

Software engineering fundamentals



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Installeren JDK



Installeren JDK

- ▣ <https://www.oracle.com/java/technologies/downloads/#jdk20-windows>
- ▣ Download de installer en open het bestand om de jdk te installeren

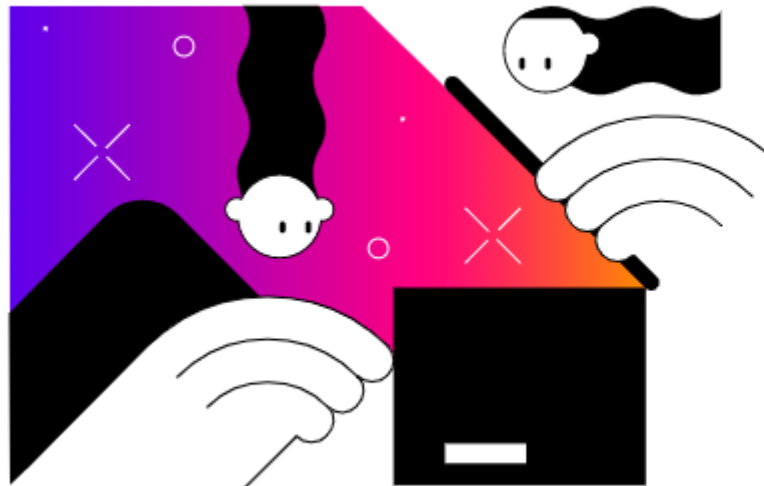




Installatie Intellij

Installeren IDE

- ▣ <https://www.jetbrains.com/community/education/#students>
- ▣ Maak een student account aan
 - Gebruik je odisee mail
- ▣ Vul de gegevens in en klik op apply



Get free access to all developer tools from JetBrains!

Apply now

Installeren IDE

- ▣ Klik op de link in de mail om je account te activeren
- ▣ Volg de stappen om de EULA te accepteren
 - ▬ Je moet naar beneden scrollen voor de knop actief wordt

Hi,

You're receiving this email because your email address was used to register or update a JetBrains Educational Pack.

Please click this link to proceed:

<https://www.jetbrains.com/shop/eform/students/request?code=agoljn6jnqsvay1i7b2hxzx5s>

After accepting the License Agreement, you will be asked to sign up for a JetBrains Account.

You will need to use this account whenever you want to access JetBrains tools.

Installeren IDE

- ▣ <https://www.jetbrains.com/idea/download/>
 - Installeer ultimate edition (gratis met je student account)



ersion: 2021.3.3

uild: 213.7172.25

7 March 2022

[elease notes](#) ➤

Download IntelliJ IDEA

[Windows](#)

[macOS](#)

[Linux](#)

Ultimate

For web and enterprise
development

Download

.exe ▼

Free 30-day trial

Community

For JVM and Android development

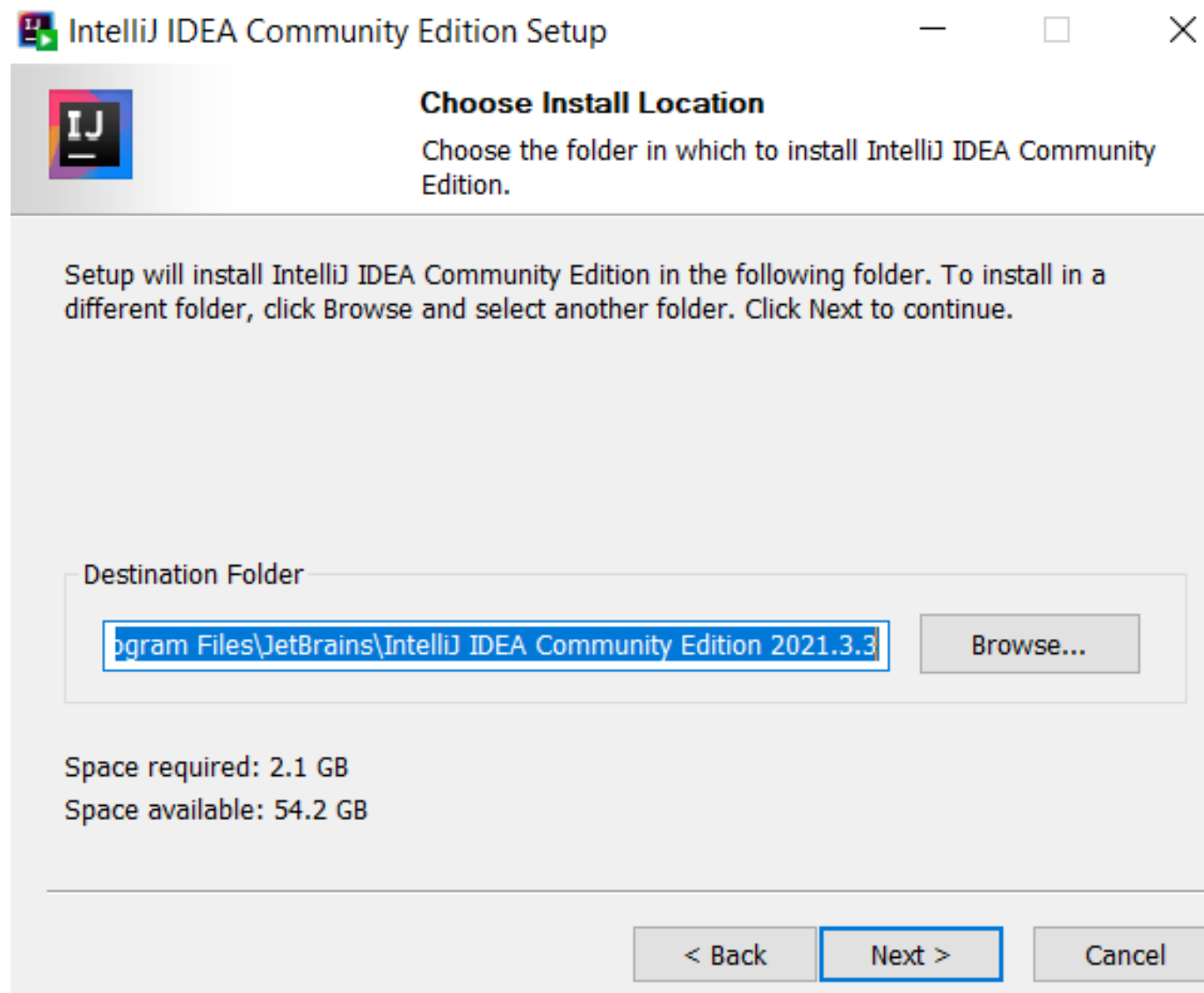
Download

.exe ▼

Free, built on open source

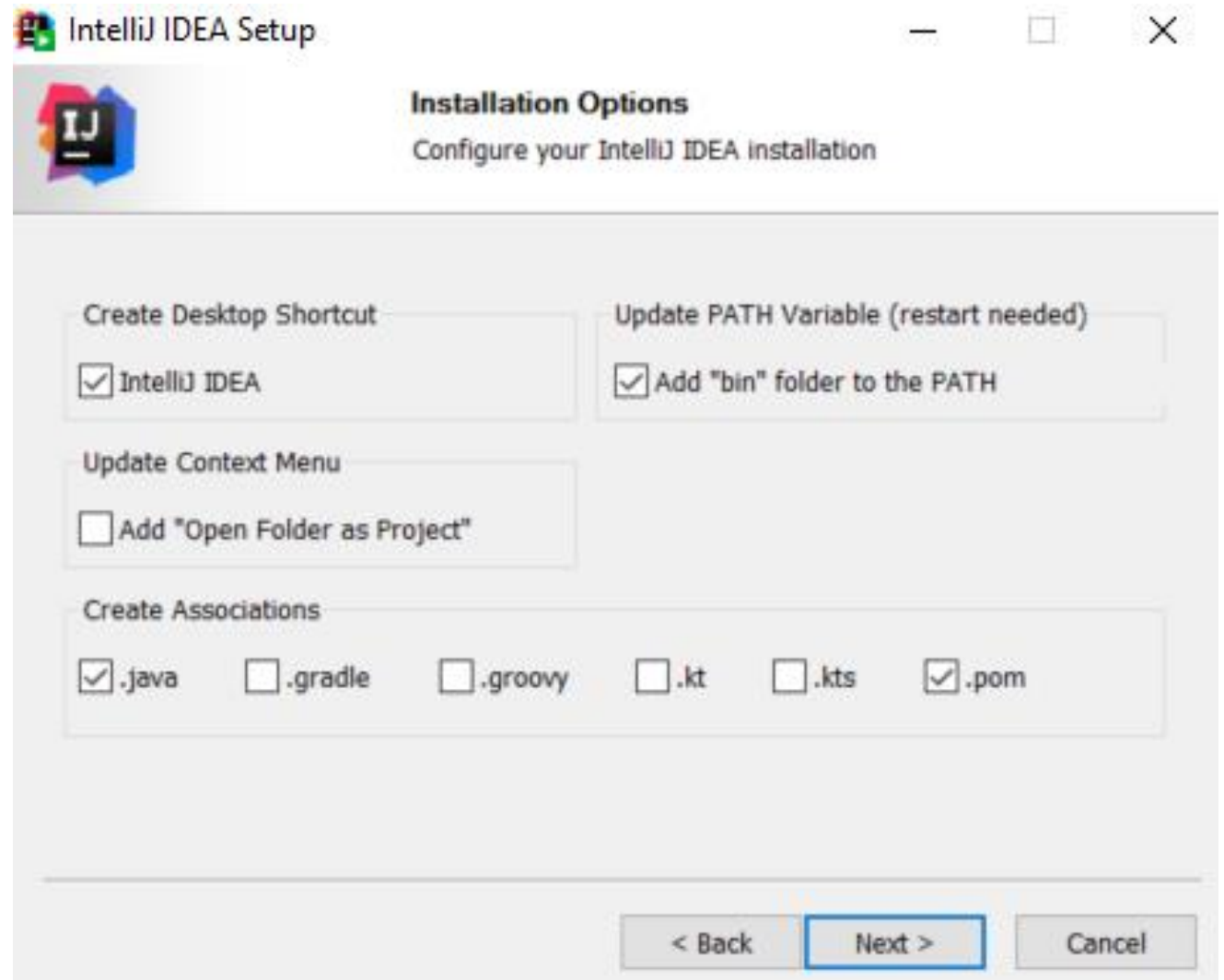
Volg de installatiestappen

■ Kies installatielocatie



Installatie

- Selecteer de volgende opties





IntelliJ IDEA Community Edition Setup



Choose Start Menu Folder

Choose a Start Menu folder for the IntelliJ IDEA Community Edition shortcuts.

Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.

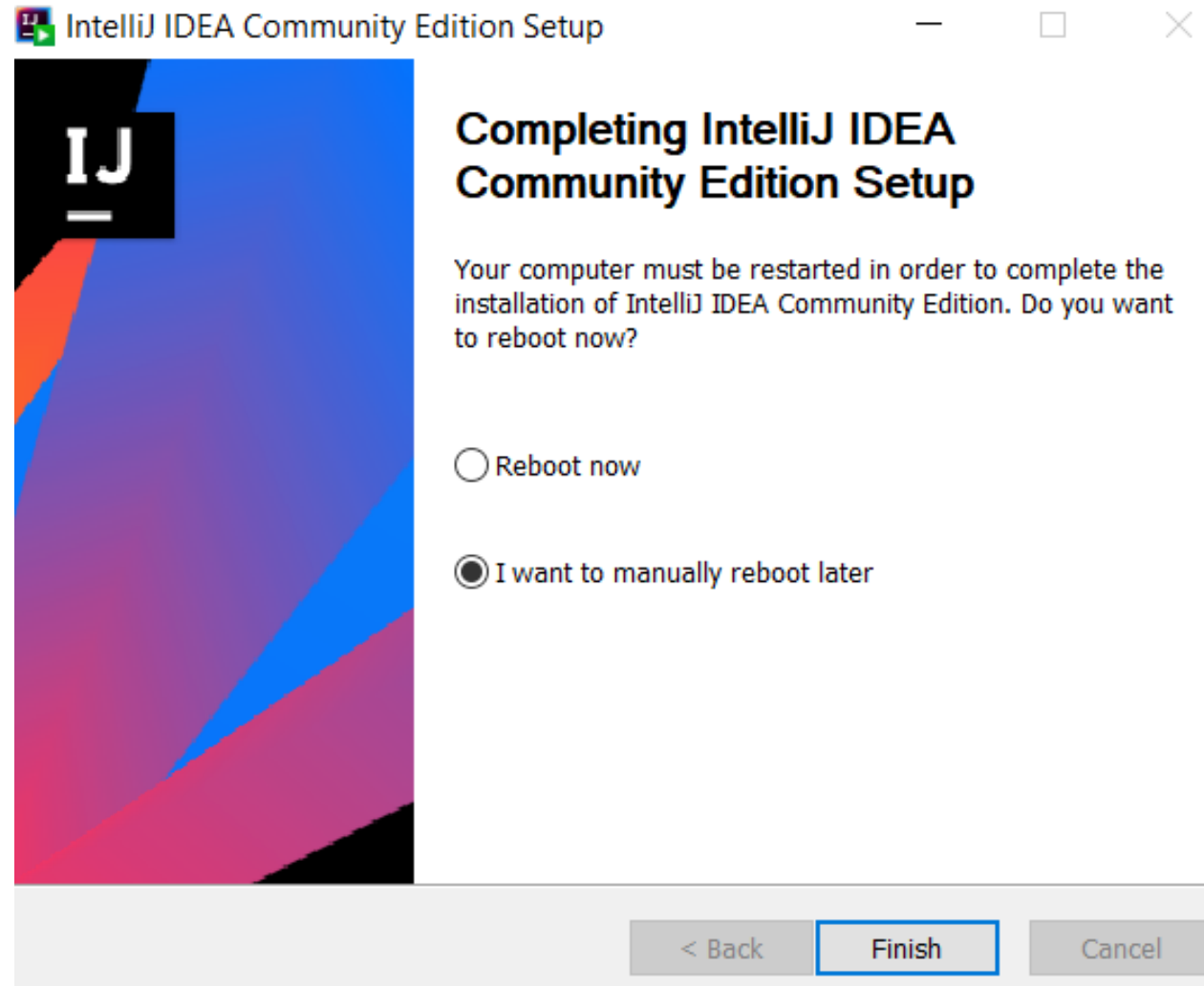
7-Zip
Accessibility
Accessories
Administrative Tools
Anaconda3 (64-bit)
Atlassian
Battle.net
Belgium - eID
Cisco
Cloudpaging Player
FileZilla FTP Client
Git

< Back

Install

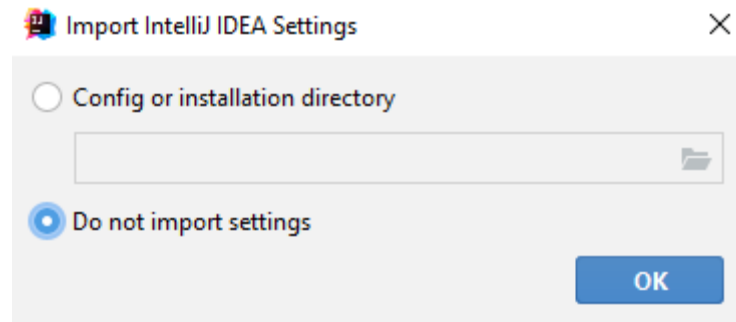
Cancel



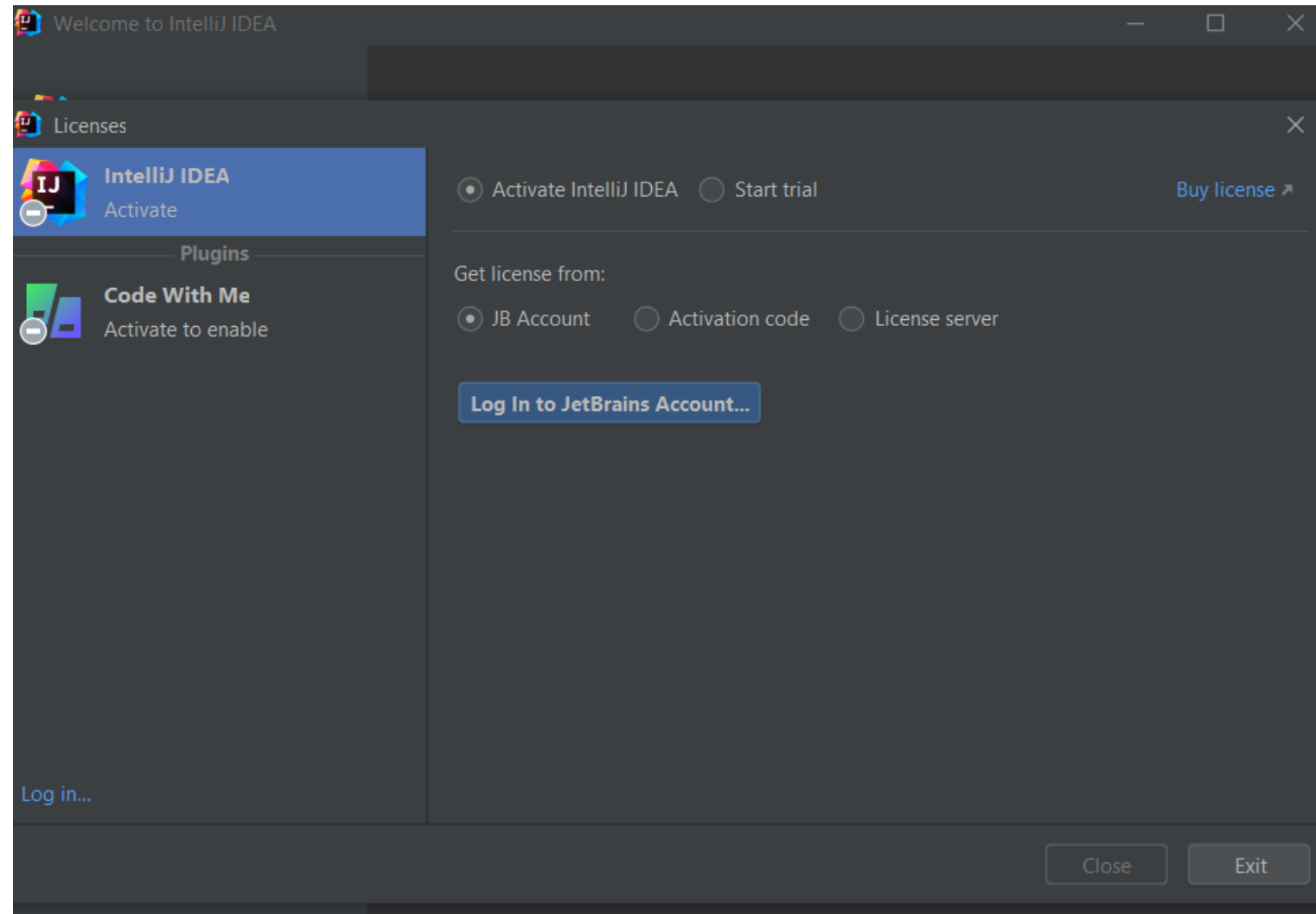


Installeren IDE

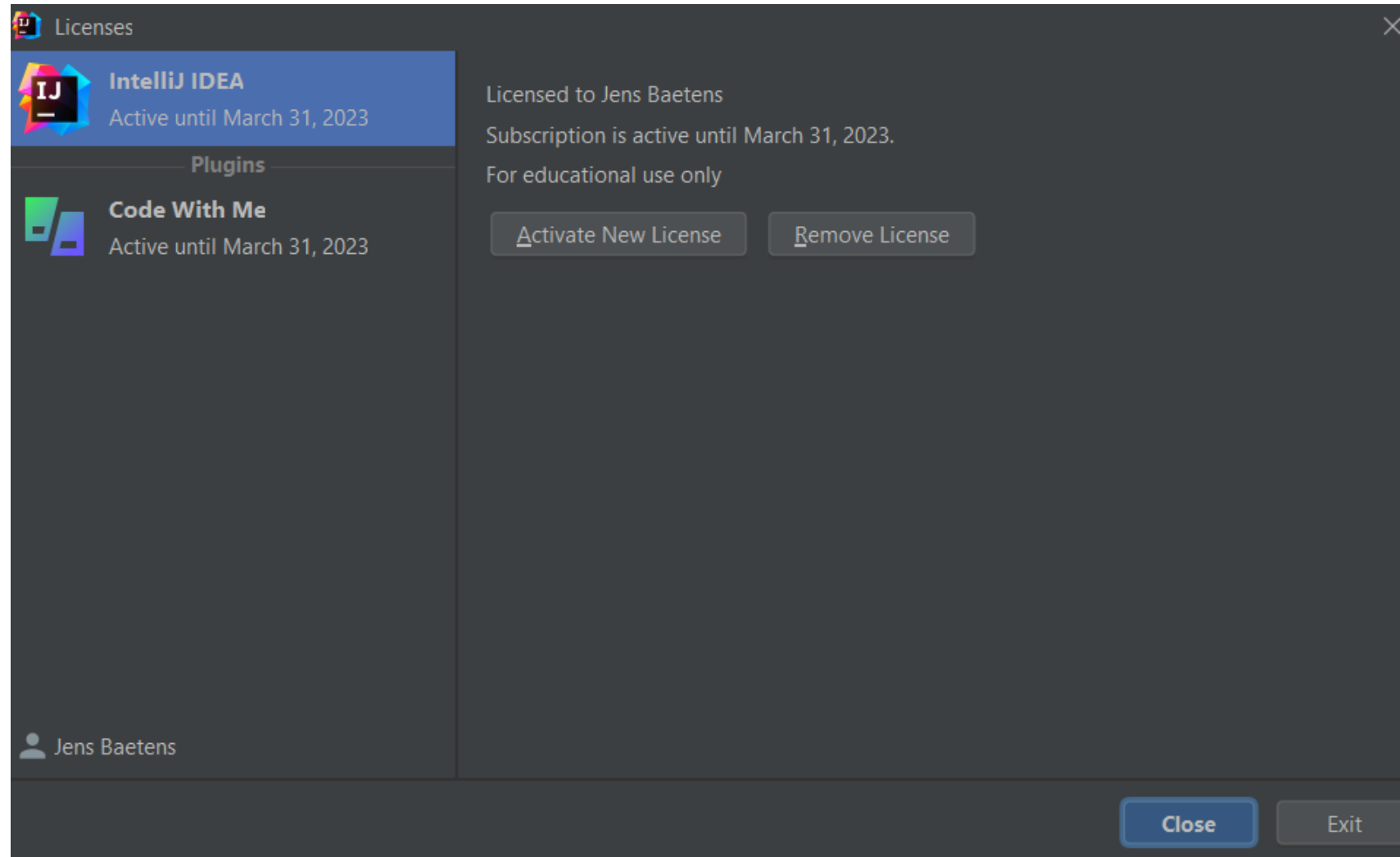
- ▣ Open IntelliJ
- ▣ Kies om geen import van settings te doen



- ▣ Log in met je account
- ▣ Klik op activate

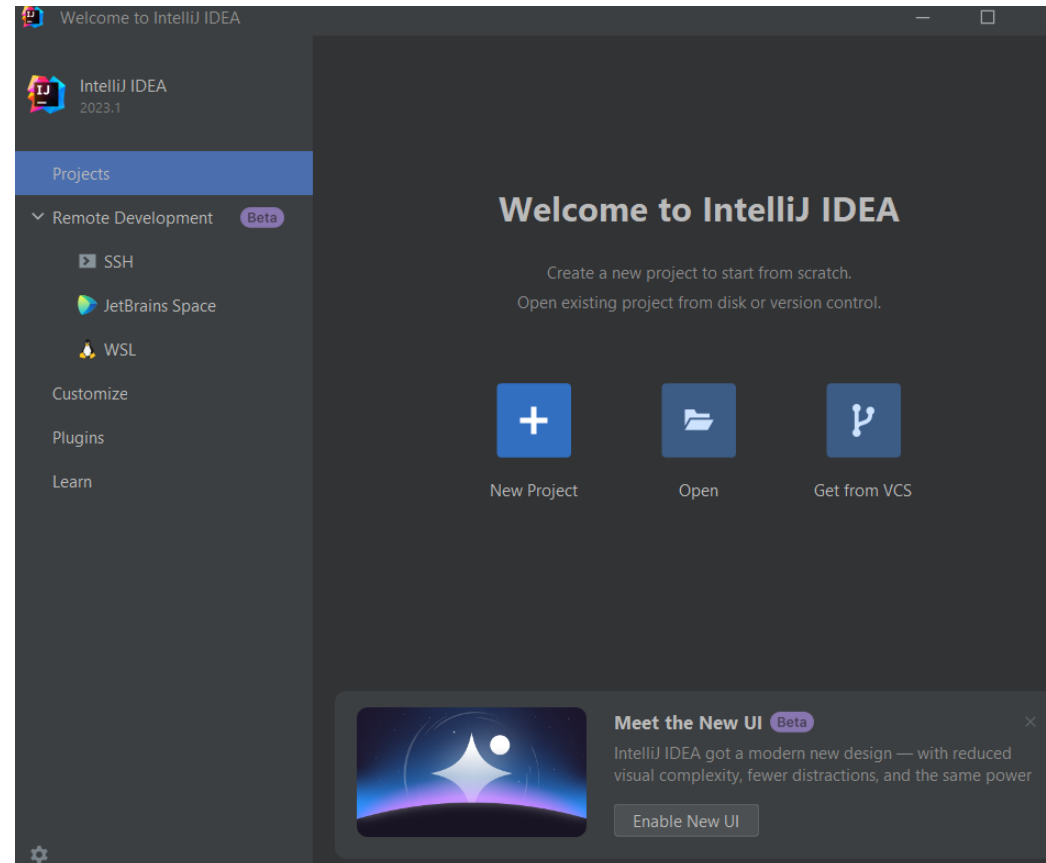


■ Klik op close

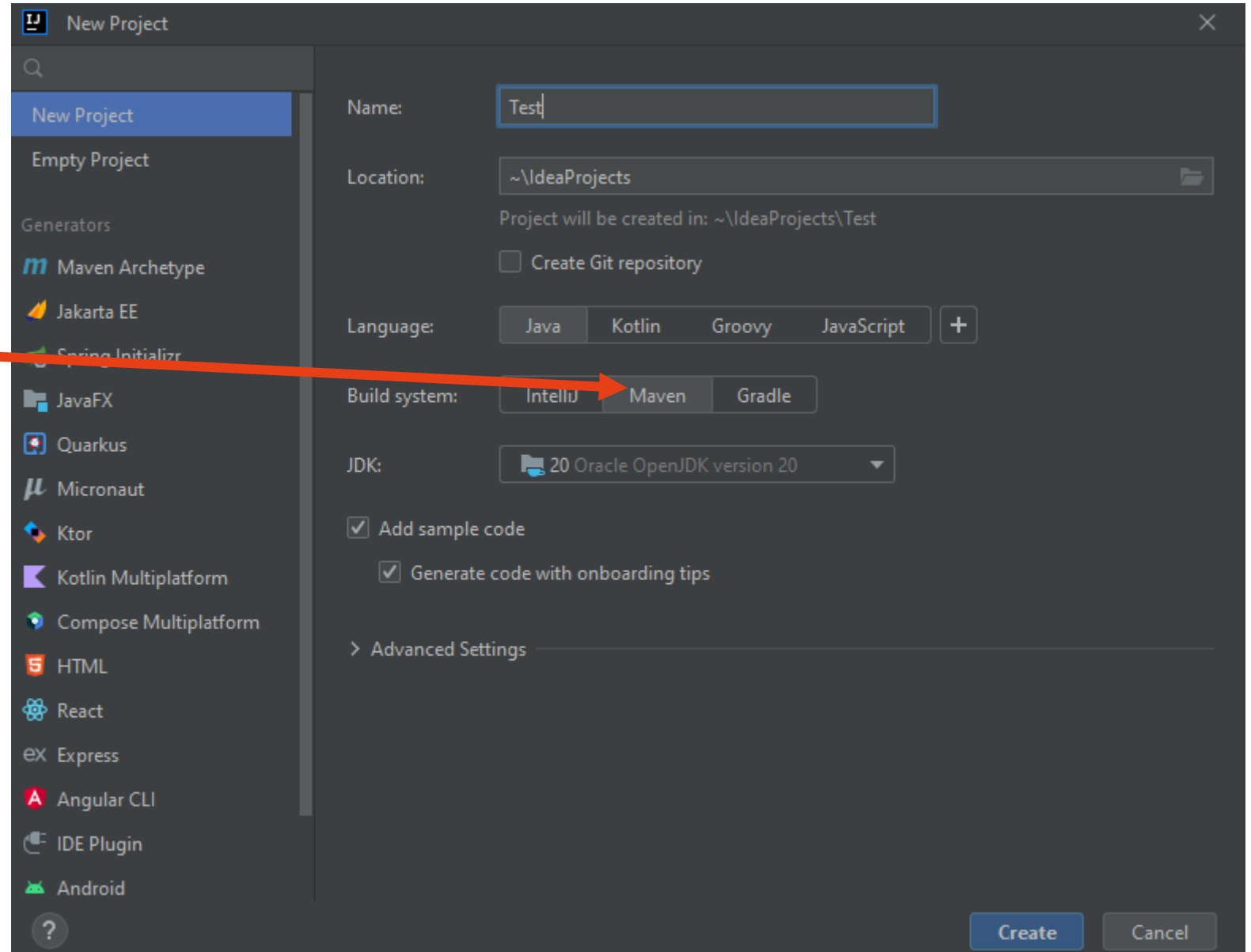


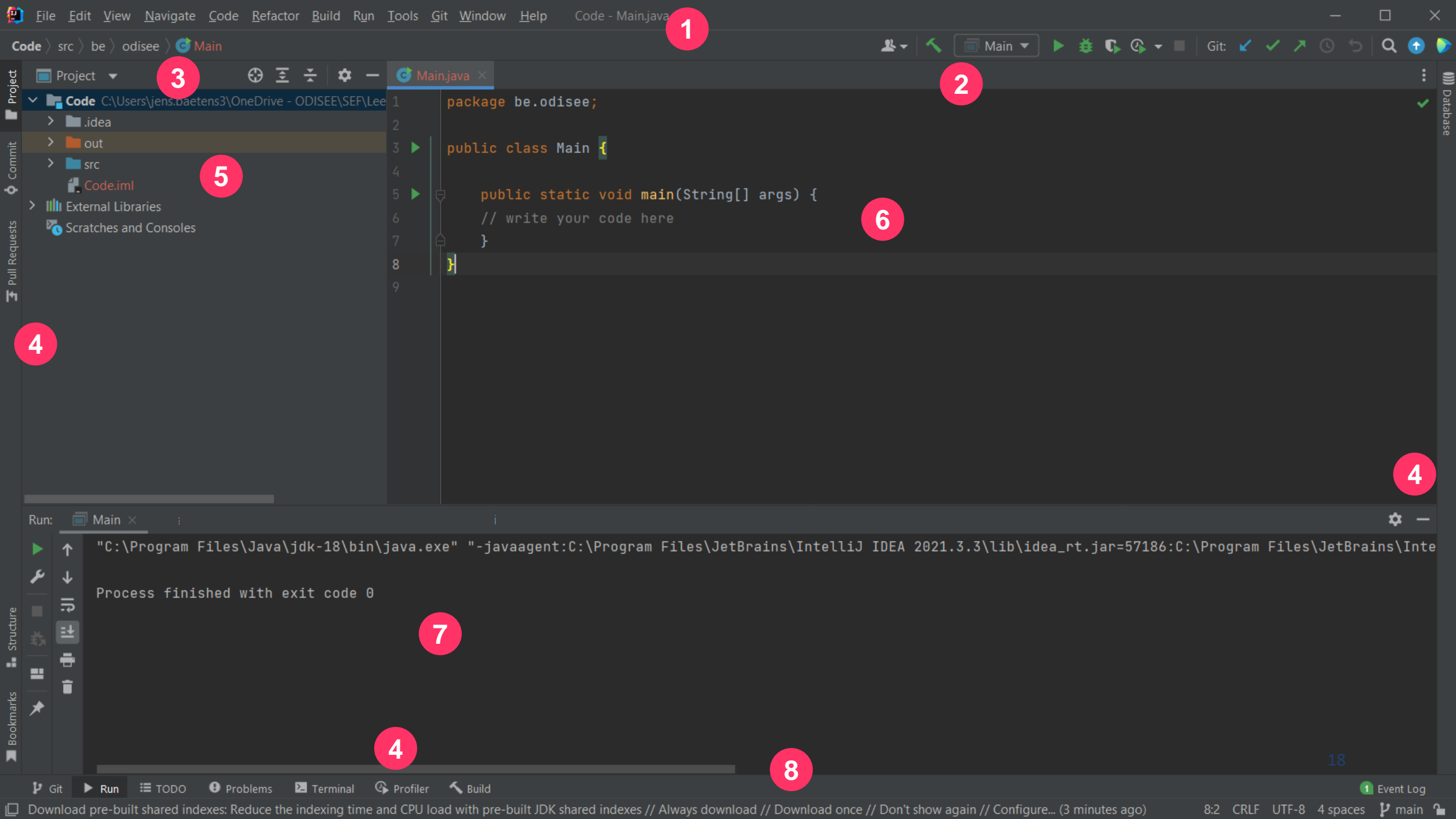
Maak een nieuw project


■ Klik op new project



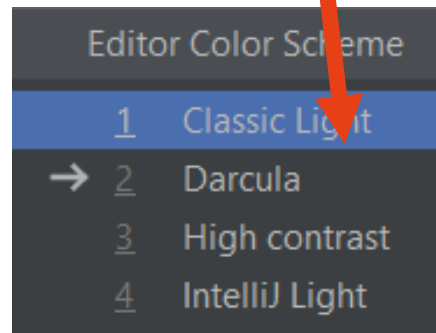
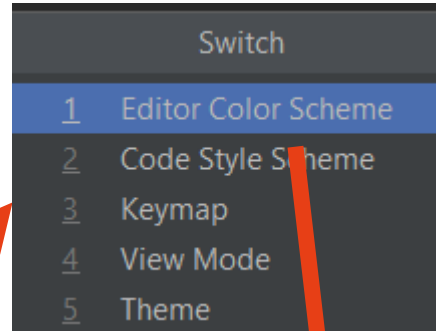
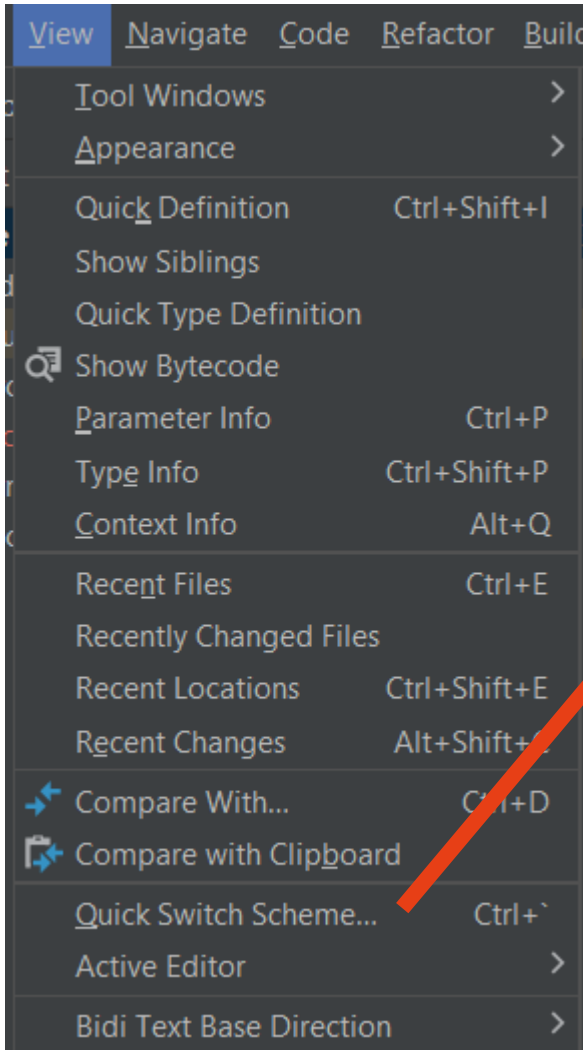
- Geef het een naam
- Selecteer maven





- 
1. Hoofdmenu -> projecten beheren, refactoring, intellij aanpassen
 2. Hoofdtoolbar -> Knoppen om taken uit te voeren binnen het project
 3. Navigatiebar -> Welk bestand actief is + pad in het project
 4. Toolbladbladen -> Links, onderaan, rechts met tools binnen het project.
Kunnen ook geopend worden via view
 5. Toolbladvenster -> Vensters die opengaan bij klikken op een tool
 6. Editor -> Venster met de code van de actieve file
 7. Run-scherm -> Belangrijk scherm voor console applicatie voor input/output
 8. Statusbar -> Huidige toestand van de IDE

Keuze thema van IntelliJ



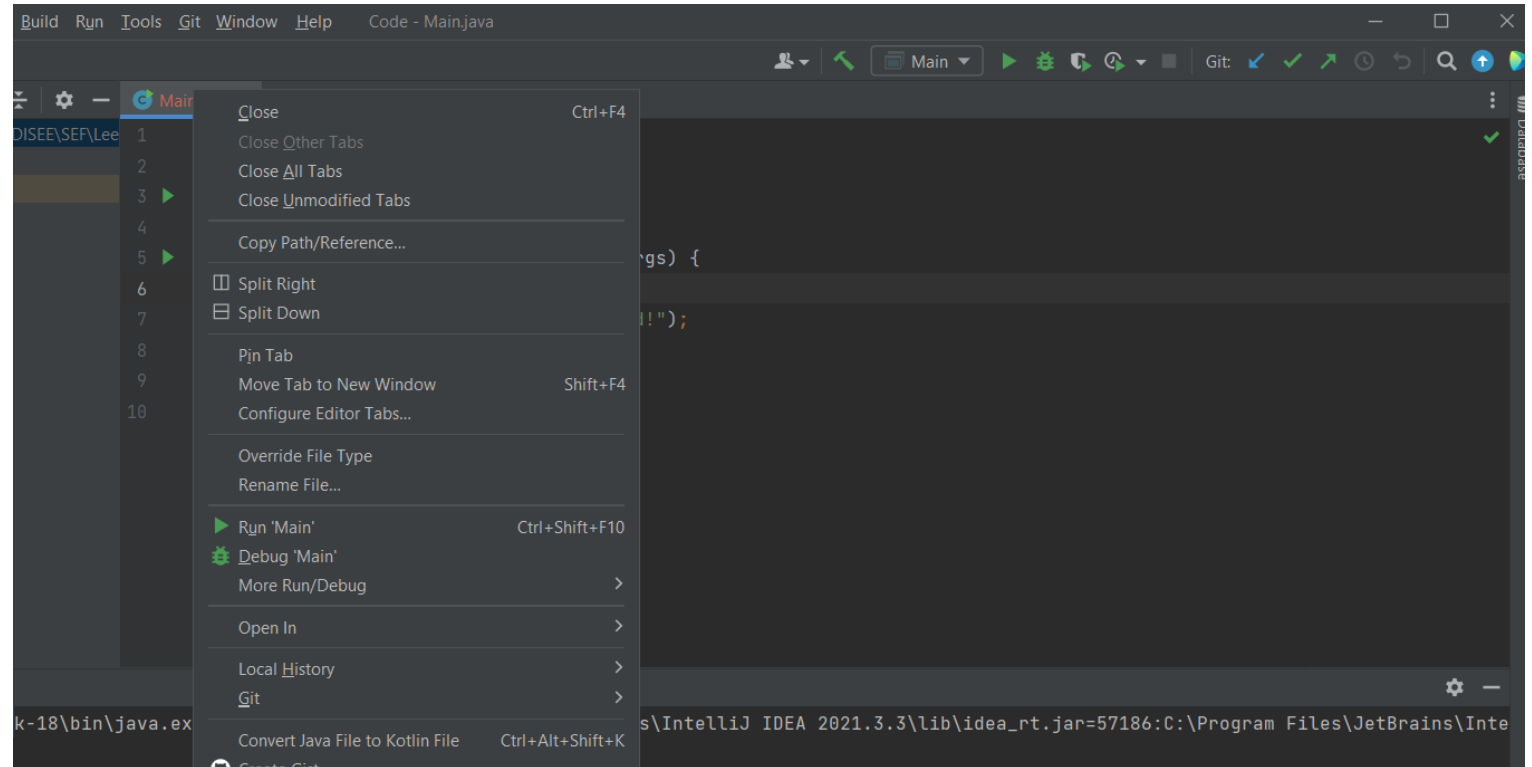
Hello world applicatie

- De sample code bevat een commando om tekst uit te printen en een for-lus

```
// Press Shift twice to open the Search Everywhere dialog and type `show whitespaces`,  
// then press Enter. You can now see whitespace characters in your code.  
public class Main {  
    public static void main(String[] args) {  
        // Press Alt+Enter with your caret at the highlighted text to see how  
        // IntelliJ IDEA suggests fixing it.  
        System.out.printf("Hello and welcome!");  
  
        // Press Shift+F10 or click the green arrow button in the gutter to run the code.  
        for (int i = 1; i <= 5; i++) {  
            // Press Shift+F9 to start debugging your code. We have set one breakpoint  
            // for you, but you can always add more by pressing Ctrl+F8.  
            System.out.println("i = " + i);  
        }  
    }  
}
```

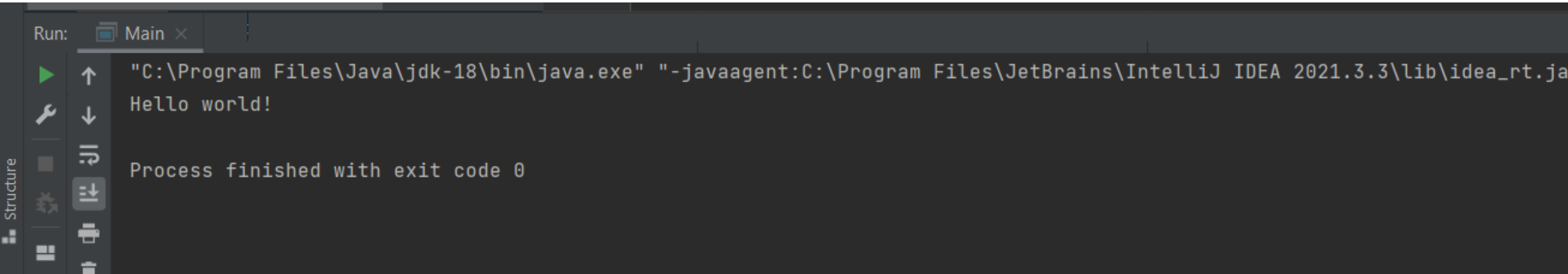
Uitvoeren van de applicatie

- Run -> Run Main.java
- Of rechtsklik het bestand
 - Run main.java



Uitvoeren van de applicatie

- In de achtergrond doet IntelliJ de commando's
 - javac
 - java
- Met als resultaat in het run-view



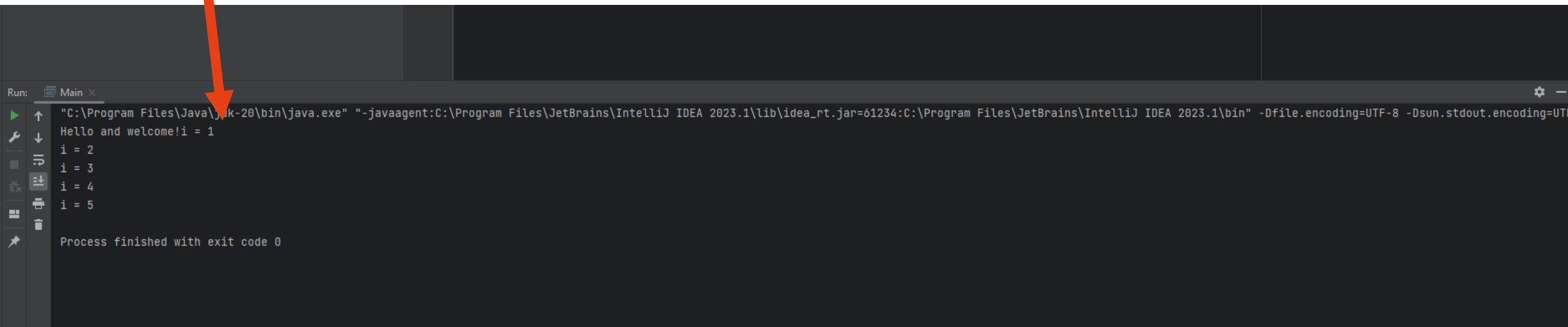
The screenshot shows the 'Run' console in IntelliJ IDEA. The console title is 'Run: Main x'. The output text is as follows:

```
"C:\Program Files\Java\jdk-18\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.3\lib\idea_rt.jar"
Hello world!

Process finished with exit code 0
```

On the left side of the console, there is a vertical toolbar with icons for running (a green play button), debugging (a wrench), and other development actions. The 'Structure' tool window is also visible on the far left.

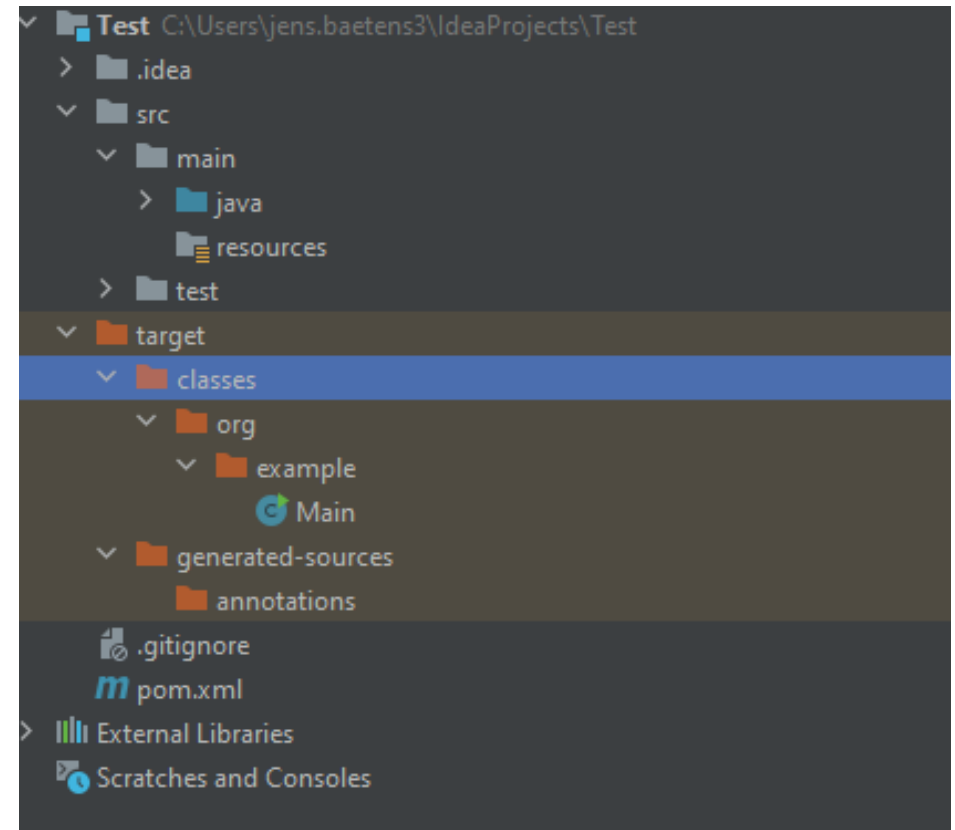
Uitvoer van de applicatie



```
Run: Main ×
"C:\Program Files\Java\jdk-20\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2023.1\lib\idea_rt.jar=61234:C:\Program Files\JetBrains\IntelliJ IDEA 2023.1\bin" -Dfile.encoding=UTF-8 -Dsun.stdout.encoding=UTF-8
Hello and welcome!i = 1
i = 2
i = 3
i = 4
i = 5
Process finished with exit code 0
```


Plaats bytecode

- Bytecode is de .class files aangemaakt door java te compileren
 - Resultaat wordt in een aparte folder geplaatst
 - Standaard in de “target/classes” folder



Aantal handige tips

- ▣ Dubbelklik op de bestandsnaam om het editor-scherm zo groot mogelijk te maken
- ▣ Rechtsklik op de bestandsnaam om meerdere bestanden naast elkaar te zetten
 - Verticaal: split-down
 - Horizontaal: split-right



Java – Naming conventions

Name	Convention
class name	should start with uppercase letter and be a noun e.g. String, Color, Button, System, Thread etc.
interface name	should start with uppercase letter and be an adjective e.g. Runnable, Remote, ActionListener etc.
method name	should start with lowercase letter and be a verb e.g. actionPerformed(), main(), print(), println() etc.
variable name	should start with lowercase letter e.g. firstName, orderNumber etc.
package name	should be in lowercase letter e.g. java, lang, sql, util etc.
constants name	should be in uppercase letter. e.g. RED, YELLOW, MAX_PRIORITY etc.