



Help The Developer

Challenge for UoBD Hackathon

Name

Developer



IntelliJ IDEA
IDE for Java and Kotlin developers

Java Kotlin Spring



PyCharm
IDE for Python developers and data scientists

Python Django Jupyter



PhpStorm
IDE for PHP developers

PHP Laravel Symfony



GoLand
IDE for Go developers

Go (Golang) JavaScript TypeScript



Rider
IDE for .NET and game developers

C# .NET ASP.NET



CLion
IDE for C and C++ developers

C C++ CMake



RustRover
IDE for Rust developers

Rust SQL JavaScript



WebStorm
IDE for JavaScript and TypeScript developers

JavaScript TypeScript React



RubyMine
IDE for Ruby and Rails developers

Ruby on Rails (RoR) Hotwire RuboCop



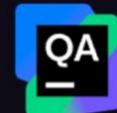
DataGrip
Tool for multiple databases

Databases SQL NoSQL



ReSharper
Extension that makes Visual Studio a much better IDE

C# .NET ASP.NET



Aqua
IDE for test automation engineers

Selenium Selenide Playwright

JetBrains IDEs

How to try?

Free Educational Licenses — for Students and Teachers!



Must only be used for non-commercial educational purposes



Official school email address



May be renewed free of charge as long as you are a student or a teacher



Or GitHub Student Developer Pack account



<https://jb.qq/cnv7yj>

Offices

JetBrains has offices and operations in multiple countries, serving a diverse and global customer base.

Amsterdam, the Netherlands

Headquarters

Marlton, USA

US Sales East Coast

Foster City, USA

US Sales West Coast

Shanghai, China

China Sales

Munich, Germany

R&D Center

Prague, Czech Republic

EMEA and APAC sales

Boston, USA

R&D Center

Berlin, Germany

R&D Center

Belgrade, Serbia

R&D Center

Warsaw, Poland

R&D Center

Paphos, Cyprus

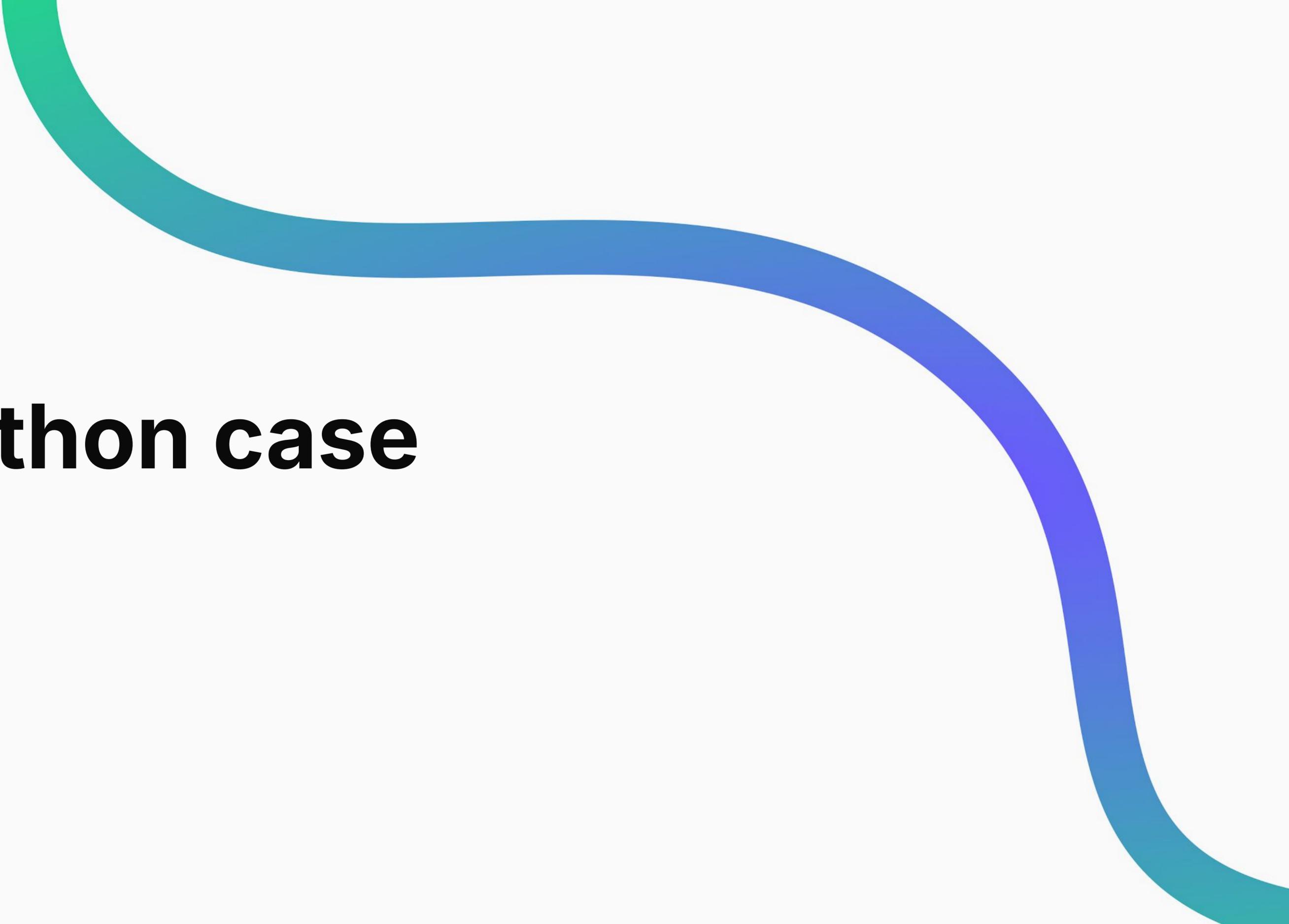
R&D Center

Limassol, Cyprus

R&D Center

Yerevan, Armenia

R&D Center



Hackathon case

Case description

Help the Developer



Case description

Context: we invite you to create an innovative application or plugin that simplifies the lives of developers.

Application or IntelliJ-based plugin with the primary purpose of making the lives of developers easier:

- Routine test creator or
- Refactor suggester or
- Your Idea → anything the team comes up with, can be even on META level. The challenge is to create an application that will make your coding experience more comfortable.

Final project: an IDE plugin, a web-app, a desktop-app, a mobile app...

Inspiration and Examples: Refactoring

Help the Developer



Case description

The screenshot shows an IDE interface with a Kotlin file named `Main.kt`. The code in the editor is:

```
1 fun main() { new *
2   val n = 10
3   val fibonacci: MutableList<Int> = mutableListOf(0, 1)
4   for (i: Int in 2..n) {
5     fibonacci.add(fibonacci[i - 1] + fibonacci[i - 2])
6   }
7   println(fibonacci)
8 }
9 }
```

The AI Assistant chat window on the right shows the following interaction:

Me
Refactor the following code:

```
Kotlin
1 fun main() {
2   val n = 10
3   val fibonacci = mutableListOf(0, 1)
4   for (i in 2 until n) {
5     fibonacci.add(fibonacci[i - 1] +
6                 fibonacci[i - 2])
7   }
8 }
```

AI Assistant
Collecting context...

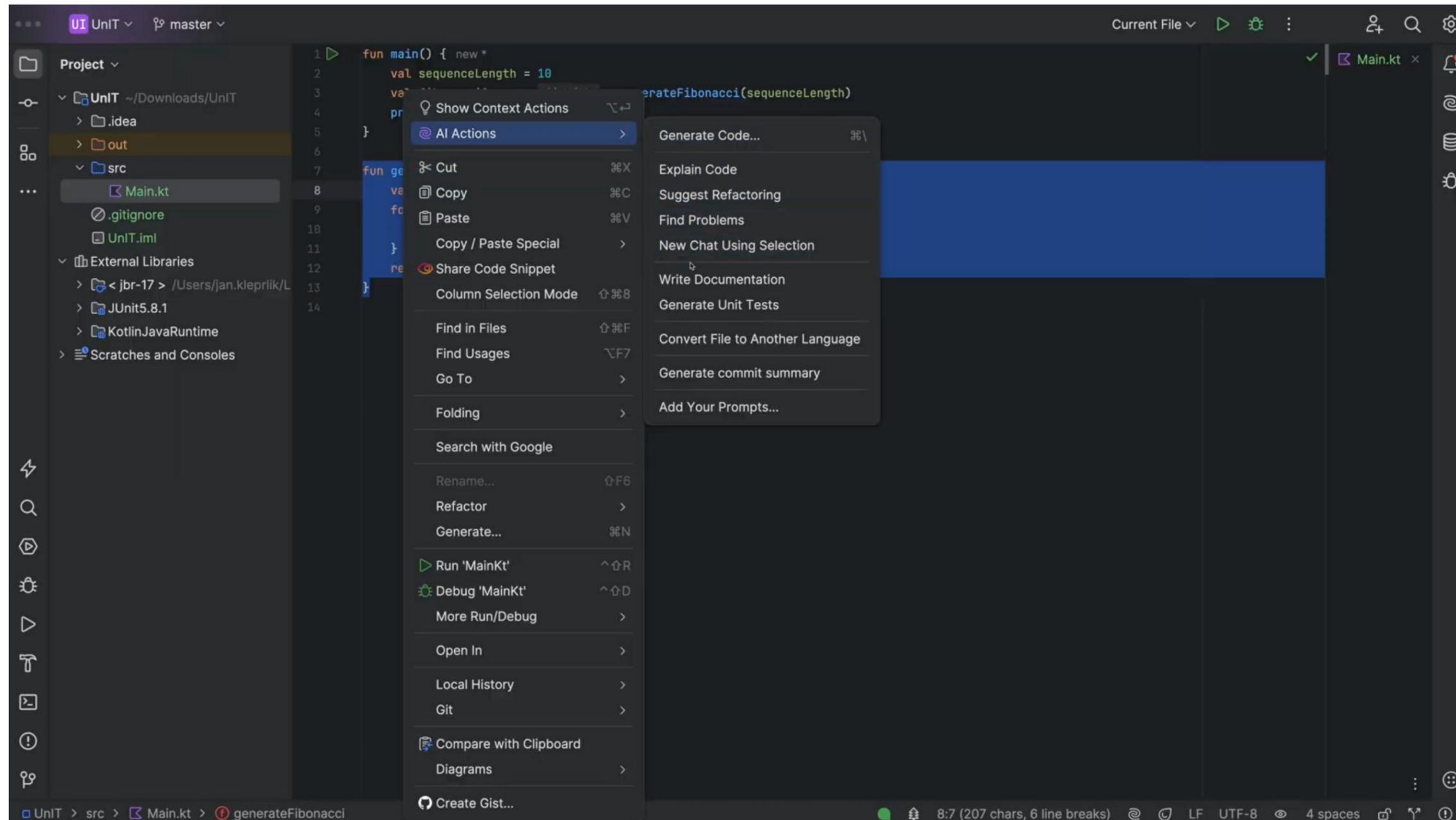
At the bottom of the chat window, there is a "Waiting..." status and a selection box containing "Selection 1-8" and "Main.kt Current". The status bar at the bottom of the IDE shows "5:18 (184 chars, 7 line breaks) LF UTF-8 4 spaces".

Inspiration and Examples: Generate Unit tests



Help the Developer

Case description



Judging Criteria

Help the Developer



Case description

Your submission will be evaluated based on the following criteria (in order of priority):

1. Implementation and Proof of Concept
2. Technical features
3. User experience and interface
4. Innovation and Creativity
5. Presentation (5 minutes + 3 minutes Q&A)

OpenAI API key

Help the Developer

You can use the OpenAI API for your task.

The OpenAI API key - drop a message in the Discord thread.



Useful resources

How to start: useful resources

Basic IDE plugin

If you consider implementing a **plugin** for JetBrains IDEs, we could recommend several resources:

- JetBrains Academy courses:
 - [IDE Plugin Development Course](#) - basics about PSI and creating plugins
 - [Coroutines and channels](#) - a course about using coroutines in IntelliJ IDEA
- To start implementation quickly, you can use [IntelliJ Platform Plugin Template](#) and IntelliJ [Platform Plugin SDK documentation](#)
- [Here](#) and [here](#) you can find examples which demonstrate how to use OpenAI models inside the IntelliJ IDEA plugin
- To inference ML models inside the plugin, you can use [KInference](#) library



**Thank you for your
attention!**

