

ITLEO

Java Basic course

Online

Beginner / Intermediate

48 lessons, 2 lessons per week

We study the following technologies:



Jenkins



Selenium



Rest



Git



Continuous Integration



Java



GitHub

More details about the course:

Java Basic is the next stage after the Java Starter course. The course is designed for those who are already familiar with the basic syntax of Java and are ready to move on. You will deepen your knowledge of OOP, learn to work with collections, files, databases and create small applications that are close to the real tasks of a Junior developer. The teachers will help you consolidate your knowledge in practice, teach you how to use Git and work in a team - as is done in real IT projects.

Course program

Block 1: Advanced OOP

- Review of basic concepts of classes and objects

- Inheritance, polymorphism, interfaces
- Abstract classes, access modifiers
- Overloading of methods and constructors
- Packages, imports, code organization in a project
- Practical task: creating a mini-user system with inheritance

Block 2: Java collections

- Collections: concepts, Collection and Map hierarchy
- Lists (ArrayList, LinkedList), sets (HashSet, TreeSet), maps (HashMap, TreeMap)
- Iterators, collection traversal
- Generics
- Practical: creating a list or data catalog management system

Block 3: Exception handling (Exceptions)

- What are exceptions and how to work with them
- Exception hierarchy (Exception, RuntimeException, Throwable)
- Using try-catch-finally, creating your own exceptions
- Error logging
- Practical work: error handling in the console application

Block 4: Working with files (IO / NIO)

- Input/output streams: FileInputStream, FileOutputStream, BufferedReader, BufferedWriter
- Reading and writing files
- New features of the java.nio.file package
- Object serialization
- Practice: creating a “Notes Manager” program with saving to a file

Block 5: Streams, lambdas and functional programming

- Lambda expressions
- Function, Predicate, Consumer, Supplier interfaces
- Stream API: filtering, sorting, mapping
- Processing collections using Stream
- Practical task: filtering and processing data through streams

Block 6: Basics of working with databases

- Introduction to SQL: tables, queries, SELECT, INSERT, UPDATE, DELETE
- Connecting to MySQL via JDBC
- CRUD operations with Java
- Creating a simple database for an application
- Practice: creating a “Task Manager” program with saving to DB

Block 7: Testing and teamwork

- Basics of unit testing (JUnit 5)
- Writing and running tests
- Basics of version control: Git, GitHub
- Working with branches, commits, pull requests
- Team mini-project: role distribution and code review

Block 8: Final project

- Setting a team task
- Developing a console application using OOP, collections, files, and a database
- Integration of tests
- Project defense and feedback from the teacher

Who is this course suitable for?

- For Java Starter graduates
- For those who have the basics of Java syntax and want to move up to the Junior level
- For those who want to understand what working on real projects looks like
- For beginners who want to get an internship or a Junior position

What will be the outcome?

- Advanced Java knowledge
- Understanding program structure and architecture
- Practical experience working with files, collections, databases

- Completed projects in portfolio
- Skills in Git and code testing
- Preparation for technical interviews

Career prospects

After the course, you will be able to apply for the following positions:

- **Java Intern / Trainee Java Developer**
- **Automation QA (in Java)**
- **Junior Back-end Developer**

Average salaries in Ukraine: \$800 - \$1500

Graduates receive practical skills, ready-made projects and recommendations for internships from ITLEO ACADEMY.

Course bonuses

- Team and individual mini-projects
- Mentor support and code reviews
- Mock technical interview
- HR consultations and resume preparation assistance
- Access to internal student and alumni community

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