

Mein Lernplan für die 808 vom 09.01.2024 bis 17.01.2024

| Zeit | Donnerstag | Freitag | WE | Montag | Dienstag | Mittwoch | Donnerstag | Freitag |
|---------------|------------|---------|----|-----------|----------|----------|------------|---------|
| 09.30 – 10.30 | Java Basic | | | | | | | |
| 10.45 – 11.50 | Planung | | | | | | | |
| 12.00 - 12.45 | | | | | | | | |
| Pause | | | | | | | | |
| 13.30 – 14.30 | TU-Quizen | | | TU-Quizen | | TU | | |
| 14.45 – 15.45 | | | | | | | | |
| 16.00 -17.00 | | | | | | | | |
| Zu Hause | | | | | | | | |

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| | | | | |
|-----------------------------------------------|-------------------|------------------------------------------------|--------------------------------------------------------|------------------------------|
| Working with Data Types | Java Basic | Using Operators and Decision Constructs | Creating and Using Arrays | Using Loop Constructs |
| Working with Methods and Encapsulation | | Handling Exceptions | Working with Selected classes from the Java API | |
| Working with Inheritance | | | Quizfragen | Pause |
| Programmieren | | | | |
| | | | | |

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Aufgabe

Erstelle deinen individuellen Lernplan. Achte darauf die Dinge auf jeden Fall zu wiederholen, welche dir besonders schwerfallen.

- Fülle deine Selbsteinschätzung erneut aus. (Git) Und lade diese in Git auch wieder ausgefüllt hoch.
- Mache dir eine Liste von Themen, welche du unbedingt wiederholen möchtest.
- Fülle deinen Wochenplan mit den entsprechenden Oberthemen.

Achtung:

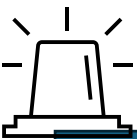
- Du darfst **maximal drei** Blöcke als „Pause“ markieren.
 - Du solltest **mindestens drei** Blöcke Quizfragen beantworten.
 - Und **mindestens vier** verschiedene Themen wiederholen.
 - Priorisiere die Themen, welche du noch eher weniger behandelt hast.
- Lade deinen persönlichen Lernplan bei Git hoch! Ordner: `_20241216Bis20WeekPrep1811. Lernplan (In Unterricht)`

Was kannst du nutzen zum Lernen?

- youtube
- <https://www.geeksforgeeks.org/>
- <https://www.w3schools.com/java/default.asp>
- <https://www.javatpoint.com/features-of-java>
- <https://openbook.rheinwerk-verlag.de/javainsel/>
- <https://www.lehre.dhbw-stuttgart.de/~kfg/java/java.pdf>
- Bücher
- Alte Aufgaben und Folien
- Dozentin und Tutoren

Verschiedene Aufgabensammlungen:

- https://www.thu.de/de/org/i/vorkurse/Documents/java_aufgaben.pdf
- <https://tutego.de/javabuch/aufgaben/>
- <https://wiki.freitagrunde.org/Javakurs/%C3%9Cbungsaufgaben>
- <https://info-wsf.de/uebungsaufgaben-erste-aufgaben-in-java/>
- <https://www.programmieraufgaben.ch/uploads/java.pdf>



Wichtig: Es muss jederzeit nachweisbar sein, was ihr gemacht habt!

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| Topic | Detail | Wiederholen | Notizen |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|
| Java Basic | | <input type="checkbox"/> | |
| | Define the scope of variables | <input type="checkbox"/> | |
| | Define the structure of a Java class | <input type="checkbox"/> | |
| | Create executable Java applications with a main method; run a Java program from the command line; produce console output | <input type="checkbox"/> | |
| | Import other Java packages to make them accessible in your code | <input type="checkbox"/> | |
| | Compare and contrast the features and components of Java such as: platform independence, object orientation, encapsulation, etc. | <input type="checkbox"/> | |
| Working with Data Types | | <input type="checkbox"/> | |
| | Declare and initialize variables (including casting of primitive data types) | <input type="checkbox"/> | |
| | Differentiate between object reference variables and primitive variables | <input type="checkbox"/> | |
| | Know how to read or write to object fields | <input type="checkbox"/> | |
| | Explain an Object's Lifecycle (creation, "dereference by reassignment" and garbage collection) | <input type="checkbox"/> | |
| | Develop code that uses wrapper classes such as Boolean, Double, and Integer | <input type="checkbox"/> | |
| Using Operators and Decision Constructs | | <input type="checkbox"/> | |
| | Use Java operators; use parentheses to override operator precedence | <input type="checkbox"/> | |
| | Test equality between Strings and other objects using == and equals () | <input type="checkbox"/> | |
| | Create if and if/else and ternary constructs | <input type="checkbox"/> | |
| | Use a switch statement | <input type="checkbox"/> | |
| Creating and Using Arrays | | <input type="checkbox"/> | |

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|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--|
| | Declare, instantiate, initialize and use a one-dimensional array | <input type="checkbox"/> | |
| | Declare, instantiate, initialize and use multi-dimensional arrays | <input type="checkbox"/> | |
| Using Loop Constructs | | <input type="checkbox"/> | |
| | Create and use while loops | <input type="checkbox"/> | |
| | Create and use for loops including the enhanced for loop | <input type="checkbox"/> | |
| | Create and use do/while loops | <input type="checkbox"/> | |
| | Compare loop constructs | <input type="checkbox"/> | |
| | Use break and continue | <input type="checkbox"/> | |
| Working with Methods and Encapsulation | | <input type="checkbox"/> | |
| | Create methods with arguments and return values; including overloaded methods | <input type="checkbox"/> | |
| | Apply the static keyword to methods and fields | <input type="checkbox"/> | |
| | Create and overload constructors; differentiate between default and user defined constructors | <input type="checkbox"/> | |
| | Apply access modifiers | <input type="checkbox"/> | |
| | Apply encapsulation principles to a class | <input type="checkbox"/> | |
| | Determine the effect upon object references and primitive values when they are passed into methods that change the values | <input type="checkbox"/> | |
| Working with Inheritance | | <input type="checkbox"/> | |
| | Describe inheritance and its benefits | <input type="checkbox"/> | |
| | Develop code that makes use of polymorphism; develop code that overrides methods; differentiate between the type of a reference and the type of an object | <input type="checkbox"/> | |
| | Determine when casting is necessary | <input type="checkbox"/> | |
| | Use super and this to access objects and constructors | <input type="checkbox"/> | |
| | Use abstract classes and interfaces | <input type="checkbox"/> | |
| Handling Exceptions | | <input type="checkbox"/> | |

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--|
| | Differentiate among checked exceptions, unchecked exceptions, and Errors | <input type="checkbox"/> | |
| | Create a try-catch block and determine how exceptions alter normal program flow | <input type="checkbox"/> | |
| | Describe the advantages of Exception handling | <input type="checkbox"/> | |
| | Create and invoke a method that throws an exception | <input type="checkbox"/> | |
| | Recognize common exception classes (such as NullPointerException, ArithmeticException, ArrayIndexOutOfBoundsException, ClassCastException) | <input type="checkbox"/> | |
| Working with Selected classes from the Java API | | <input type="checkbox"/> | |
| | Manipulate data using the StringBuilder class and its methods | <input type="checkbox"/> | |
| | Create and manipulate Strings | <input type="checkbox"/> | |
| | Create and manipulate calendar data using classes from java.time.LocalDateTime, java.time.LocalDate, java.time.LocalTime, java.time.format.DateTimeFormatter, java.time.Period | <input type="checkbox"/> | |
| | Declare and use an ArrayList of a given type | <input type="checkbox"/> | |
| | Write a simple Lambda expression that consumes a Lambda Predicate expression | <input type="checkbox"/> | |