CS1 — Practical Session 3: Conditions & Decisions

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In this third practical session you will get some experience with conditional execution in Java.

First things first

If you didn't finish the first 3 exercises or the assignment from the previous skills lab, please see to them first. Don't worry about the bonus exercise. Next time, try to finished exercises you couldn't complete during the lab at home. They teach you things you need to know.

Exercise 1

Write a Java program that reads an integer number from the command line and prints out whether the number was even or odd. (You can employ the `Absolute Number` example from the lecture (slide 10) as a starting point.)

Exercise 2

Write a Java program that reads in a positive whole number below 20 and check wether the number is prime and prints the result. Make the program *robust* by having it warn the user when he/she types in a number that is negative or larger than 20.

Exercise 3 — Things are getting a bit tougher ...

Some more recent (and geeky) boardgames use dice with different numbers of sides, 4, 6, 8, 10, 12, 20, ... Write a Java program called Dice that first asks the user for the number of sides on the die he or she wants to roll, and then simulates a random roll with that die and prints the result. Your program should roll a fair dice, with equal probabilities for all possible outcomes and work for all whole positive numbers, not just for the 6 values listed above.

Assignment!

Write a Java program that does the same as in Exercise 1, but lies about the result 10% of the time. Not more not less!

When everything works as expected, **upload** your `.java` file under the 3^{rd} lab-assignment to make sure you get the credit for your work.

Bonus — so you don't get bored

Write a Java program that reads in 3 words from the command line and prints them out ordered lexicographically. For an extra challenge, read in 4 or even 5 words. (Don't worry, when you learn more about programming, this will be come much much easier than it is now.)