IWGS – Informatische Werkzeuge in den Geistes- und Sozialwissenschaften – WS 2018/19
Assignment 0: Happening
– Given 15.11.2018 –

Problem 0.1 (Echo)

Write a program which asks the user for input (hint: use the input function) and then repeats the user's answer by printing it.

Problem 0.2 (Ifs)

Create a variable and assign it an arbitrary whole number. Afterwards, create an if-statement and test the following conditions: If the value stored in your variable is greater than zero, print "The number is positive". If not, print "The number is negative".

Test your program with different values! Is the printed statement always correct? What happens if the value of your variable is exactly zero? How can you amend your program, such that it prints "The number is zero", if it is zero, and only prints one of the other two statements, if it is not?

Problem 0.3 (Loops)

Write a program, which prints all numbers between 0 and 10. Use a while-loop. Can you amend your program, such that it prints the numbers in reverse order, i.e. the numbers printed are $9, 8, 7, 6, 5, \ldots$?

Problem 0.4 (Lists)

Create a list containing the names of a few friends of yours. Write a for-loop, which for each entry in the list prints a greeting message containing the name. For example, given a list with the names "Paul" and "Maria" your program should print "Hello Paul" and "Hello Maria".

Problem 0.5 (Strings)

Create a variable which contains the following text (feel free to copy from Wikipedia instead of typing it out):

> "Python is an interpreted high-level programming language for general-purpose programming. Created by Guido van Rossum and first released in 1991, Python has a design philosophy that emphasizes code readability, notably using significant whitespace. It provides constructs that enable clear programming on both small and large scales."

Count how often the letter 'p' occurs in the text (hint: search for the count function on the internet). Print the number of occurrences. Right now, your program only counts the number of lower-case 'p's. Revise your program, such that both 'p' and 'P' are counted.

Problem 0.6 (Dictionaries)

Create a dictionary which associates names with email addresses. For example, create an entry with key `"Jonas"` and value `"jonas.betzendahl@fau.de"` and one with key `"Philipp"` and value `"philipp.kurth@fau.de"`. Add as many entries as you like.

Then, ask the user for a name (hint: use the input function). Look up the corresponding email address in your dictionary and print it. What happens if the user enters a name, which is not in the dictionary?