

First algorithms and input/output

Objectives: Work with first simple algorithm with flow control and loops.

1. Write a program that reads-in a numerical value and visualizes the value as text on the terminal.
2. Write a program that reads-in a numerical value and visualizes whether the value is odd or even.
3. Write a program that reads-in the age of a person visualizes whether the person is an adult or not.
4. Write a program that visualizes which one of two input numbers is the larger one. Extend the program to work for three numbers.
5. Write a small calculator, i.e., a program that accepts three parameters: two numbers and a symbol. If the symbol is a + the values are added, if it is a - the values are subtracted, likewise *, /, and ^ (exponential).
6. Write a program that asks for a number and outputs all integer square-numbers less than the given value.
7. Write a program that computes the mean value of a series of numbers given by the user. Think about a method how to determine that the user wants to stop input.
8. Write a program that finds the minor and mayor value of a series of numbers given by the user.
9. Write a program that shows on the terminal the corresponding multiplication table (for instance: $1*7=7$, $2*7=14$, etc.).
10. Modify the previous program such that the output is nicely formatted in column format.
11. Write a program that shows whether a given number is prime or not.