

Object-oriented Programming

Assignment Sheet No. 11

Date: January 17

Exercise 11.1 (Debugging)

Debug the solution of Exercise 5.3 (available on the web page).

- Set a breakpoint at the beginning of function `prefix_sum`.
- Start the program with *Start Debugging* (**F5**) and step through the code, line by line.
- Watch the values of the local variables while stepping through the code.

Exercise 11.2 (Debugging Recursive Functions)

Debug the solution of Exercise 6.4 (available on the web page).

- Set a breakpoint at the beginning of the recursive function `gcd`, which stops when the breakpoint was hit for the 4th time.
- Start the program with *Start Debugging* (**F5**). Enter e.g. 1234 for `a` and 444 for `b`.
- Watch the values of the three expressions `a`, `b`, and `a % b` while debugging the program.
- Navigate through the call stack by double-clicking each of the four occurrences of the `gcd` function and watch the different values for the three expressions.
- Step through the program with *Step Into* (**F11**) and *Step Over* (**F10**); observe the difference between both.

Instead of using the Watch window, also try to use a pinned DataTip that shows you the expressions `a`, `b`, and `a % b` together (this is only possible using Visual Studio 2010, not with the 2008 version installed on the pool computers).