memory (INST_MEM.vhd) with the actual source code. In this case the message "Syntax check and Translation finished!" appears. ("Szintaktikai ellenőrzés és Fordítás kész!")

The first task is to run the **assemblerDTcpu4.exe** file in the folder of the project. Open the **prog/example_for.txt** file. This example realize a for loop. The first instruction read the input value of input0, than set the out0 display to zero value. Finally, the value of out0 will increase until it reaches the value of input0. Translate the program with the ISE Webpack, create the binary code for programming the FPGA, and upload this code to the development board. Analyse the operation of the program.

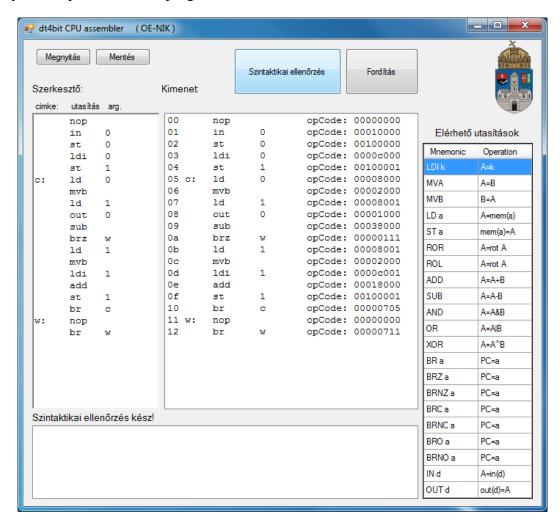


Figure 2. Example of a for loop

The C language equivalent of source code: