Programming in Assembler – Laboratory

Exercise No.3
Simple MS-DOS program assembling and debugging

During the Exercise No.3 students are to debug simple programs using the CodeView Debugger. On the next step other programs should be modified to improve their comfort of the usage.
Programs are attached to the documentation in `lab3-1.asm` to `lab3-6.asm` files.

During the laboratory students are to:
1. Create the project to the `lab3-1.asm` file with options for debugging and generating listing file.
2. Create the project to the `lab3-2.asm` file with options for debugging and generating listing file.
3. Assemble first project to the `*.exe` file and run the program.
4. Assemble second project to the `*.com` file and run the program.
5. Using CodeView analyze differences between `*.exe` and `*.com` executables.
6. Create the project to the `lab3-3.asm` file with options for debugging and generating listing file.
7. Assemble project to the `*.exe` file and run the program.
8. Run the CodeView debugger and analyze program execution observing placement (full address) and functions of PSP header (Pogram Segment Prefix).
9. Create the project, assemble and run the program given by the supervisor (`lab3-4.asm`, `lab3-5.asm`, `lab3-6.asm`).
10. Modify the program above to get the file name as a parameter from the command line using information from program `lab3-3.asm`.
11. Debug the modified program with CodeView and run the program.

The report should consist of:
- Title page.
- Explanation of differences between `*.com` and `*.exe` files.
- Description of PSP header fields and placement in the memory.
- Short description of file handling in assembler programs.
- Modified program listing file.
- Conclusions.