

Preparation of homeworks for “Financial Computing with C++”

To be concrete, the instructions below are given for the case of the first homework assignment and for the Windows-WSL-Ubuntu setup. The same instructions also hold for the MacOS-Homebrew setup after the changes:

Command Palette: (Ctrl+Shift+P) -> (Cmd+Shift+P).

Build a project: (Shift+F7) -> (Shift+Fn+F7).

Run a project: (Shift+F5) -> (Shift+Fn+F5).

Debug a project: (Ctrl+F5) -> (Ctrl+Fn+F5).

Installation of project Homework1

1. Download file Homework1.zip.
2. Extract the contents of the file to directory FC\CPP. Check that you get the directory tree as FC:\CPP\Homework1 (not as FC:\CPP\CPP\Homework1).
3. Open folder \CPP with VS Code. Open file \CPP\CMakeLists.txt. This is the same file where you wrote your “YOUR_ID” while installing the course package. Uncomment line

```
# add_subdirectory(Homework1)
```

that is, remove #.

4. Configure the project with (Ctrl+Shift+P) and (CMake:Configure) and then build it with (Shift+F7). You will see the error messages like:

```
... Linking CXX executable Homework1
...
[build] Build finished with exit code 2
```

These errors occur because the functions declared in header file \CPP\Homework1\Homework1.hpp have not been implemented yet. This is what you need to do!

5. The documentation for these functions is provided in two places:

- (a) in file `Homework1.pdf` that you should also be able to download;
 - (b) in directory `\build\doc\Homework1\html` that was created as part of the previous step. Click on any `.html` file.
6. Create 4 `*.cpp` files (one per problem) in directory `\CPP\Homework1\Src` and implement the requested functions.
 7. Configure with (`Ctrl+Shift+P`) and (`CMake:Configure`), compile with (`Shift+F7`), and run the project with (`Ctrl+F5`) or (`Shift+F5`).
 8. If everything works fine, then file `Homework1.txt` will be created in directory `FC\build\output\Homework1`. Check that “YOUR.ID” appears on the first line.

Submission of a homework assignment

You do not have to submit the homework. Just insure your results match the published benchmarks. Minor (around 10^{-6}) numerical differences are possible, but check with the instructor or teaching assistant in case of doubt.

On the final exam, you will need to `zip` and submit the 4 `*.cpp` files containing your code and the output `*.txt` file.

You will have to submit the output `.txt` file to get a positive score.*