

National Technical University "KhPI"

Educational and Scientific Institute of Computer Science and Informational Technology

Department of Computer Engineering and Programming

Course: Programming. Part1

REPORT on the laboratory work #3

Topic: "Building and Debugging a Simple C Project"

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### Task 3

#### Explanation

To configure the development environment, write some code in C, and compile it using a Makefile.

#### Command performed

```
yay -S gcc make pandoc gdb
git checkout -b lab_03
mkdir lab_03
nvim lab_03/main.c
nvim lab_03/Makefile
make all
./main > output.txt
make doc
make debug
nvim lab_03/report.md
git add .
git commit -m "feat: report.md for lab_03"
git push lab_03
```

#### Algorithm

1. Created a Makefile to automate the build process.
2. Compiled the program using `make all`.
3. Redirected the output to a file using `./main > output.txt`.
4. Created MD report.

5. Generated a PDF report from the markdown file using `make doc`.
6. Debugged the program using `make debug`.

[IMAGE: ]

### **Tools**

- OS: EndeavourOS
- Compiler: `gcc`
- Editor: VS Code
- Build System: Make
- Documentation: Pandoc
- Debugger: `gdb`