



AGH University of Krakow | Faculty of Mechanical Engineering and Robotics
| Department of Robotics and Mechatronics

MECHATRONIC ENGINEERING | I cycle | semester VI | 2025/2026

Object oriented programming and software engineering

Instruction II:

Writing README files

You will learn:

How to document your project in a clear and professional way. You will learn how to write a README file that explains your system, how it works, and how to use it.

You will learn how to describe your project clearly, explain how to build and run your code, document classes and system structure, present your project in a professional way, make your project understandable to others

By the end of this class, your project should include README file that allows another person to understand and run it without additional explanation.

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1. Initial information

In real software development, other developers, testers, or users must be able to understand how the system works and how to use it.

Documentation is not an addition to the project, but it is part of the project.

The most important document in most repositories is the README file. It is the first thing someone sees when opening a project.

README file should answer three basic questions:

1. What is this project?
2. How do I run it?
3. How does it work?

In C++ projects, documentation is especially important because projects are often split into multiple files, compilation may require specific steps, system structure is not always obvious.

2. Theoretical Content

README is a text file (usually **README.md**) that describes your project. It should be written in a way that someone who has never seen your code can understand it. It is typically written using Markdown, a simple formatting language.

README should contain:

Project title and description:

```
# Project title
```

```
Short description of a project.
```

Table of contents

```
## Table of contents
* [Description] (#description)
* [Current Features] (#current-features)
* [Planned Features] (#planned-features)
* [How to Run] (#how-to-run)
* [Example Output] (#example-output)
* [Authors] (#authors)
```

```
## Description
```

```
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim
veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea
commodo consequat. Duis aute irure dolor in reprehenderit in voluptate
velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint
occaecat cupidatat non proident, sunt in culpa qui officia deserunt
mollit anim id est laborum.
```

```
## How to run
```

```
Compile:
```

```
```bash
g++ main.cpp -o program
```
```

```
## Example output
![[ScreenShot]](/screenshots/example.png)
```

3. Task

Create a README file for your project.

Your README should describe the current version of your system. Write what your project is supposed to do, and then describe the functionalities.

Add the instructions about compilation and running the program (requirements and quick start).

Include examples of how your program should behave.

Add the authors.

Later in the semester, the final README should be a document that allows others to understand and run your project without additional explanation.