



ISTANBUL TECHNICAL UNIVERSITY
ITU ZES Solar Car Team

2023/2024

Weekly Assignment-2

11.11.2023

1 C++ Variables

In this assignment you are expected to search variable types in C++ in detail. You need to write a program that creates all possible combinations of int, float, and double with long, short, unsigned keywords. After that, the program must print these properties of variables:

- Print the sizes of all variables using `std::sizeof()`
- Create pointers to all the variables you've written, then print the sizes of them also
- Print the max and min values of each variable using `std::numeric_limits()`
- Also explain auto variables, const, and constexpr keywords

You must write a report covering all of your searches about each variable. Also search `int(N)_t`(for example `int32_t`), `float(N)_t`(for example `float64_t`) variable types, and explain when to use `fixed_` with int and float types. Do not forget to include `size_t` variable and `wchar_t` variable types, and write the differences between these types with respectively int and char. You can add the terminal outputs of your code to the report. You must submit both the report and C++ code of your work.

2 Conclusion

For any questions and errors you find, contact Yusuf YILDIZ via +90 553 046 3920. While preparing your work consider readability and scalability, and also do not forget to add necessary comments to your codes.