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MIPS Disassembly and Reverse Engineering

The goal of this project is to study the MIPS processor by looking at the assembly instructions of this ISA, since each ISA has a different set of instructions it can use. We are going to do so by writing a source code file in C++ and using reverse engineering software to translate the source code into the assembly language of this processor. We will go line by line, instruction by instruction, analyzing what each of the instructions does and how they relate to other instructions within the sequence. We will be using compiler explorer from godbolt.org to convert the source code in C++ to the assembly language of the MIPS processor. After looking at these instructions and deciphering what they mean, this will give each of us a greater understanding of assembly and lower-level programming languages, especially MIPS ISA.