Module Two Introduction and Learning Objectives

Welcome to the Processor Instruction Set Architecture & Language Module!

To command a computer's hardware, you must speak its language. The words of a computer's language are called instructions, and its vocabulary is called an instruction set. In this module, you will see the Instruction Set Architecture (ISA) of a real computer, both in the form written by people and in the form read by the computer.

Learning Objectives

By the end of the module, you will be able to

1. Understand the concept of Instruction Set Architecture (ISA) and Microarchitecture.

2. Learn the format and operations of each MIPS instruction type.

3. Know how to translate high-level code to assembly code and figure out its effect on memory.

How to Achieve the Objectives

You can achieve this module's learning objective by accomplishing the following:

Readings

1. Chapter 2 of the textbook: **COD_Chapter2.pdf
(https://sjsu.instructure.com/courses/1491749/files/69324350?wrap=1)**

2. MIPS Data Card: **MIPS_Reference_Data_Card.pdf
(https://sjsu.instructure.com/courses/1491749/files/69324341?wrap=1)**

3. Extra reading: **DDCA_Chapter6.pdf
(https://sjsu.instructure.com/courses/1491749/files/69324337?wrap=1)**

Lectures

Check the module for the latest lecture slides and recordings.

Assignments

There will be a series of assignments related to this module. Check the Assignments under this module for the latest assignment.

Discussions

Module discussion: **Module Two General Discussion (https://sjsu.instructure.com/courses/1491749/discussion_topics/4728250)**

How You Will Demonstrate Your Achievement of the Learning Objectives

1. Assignment & report.

2. Quiz.

3. Extra practice questions.