CS286: Lecture Note (Lecture #3, August 29, 2022)

The agenda for CS286 lecture #2 (August 24, 2022).

1. **Pick up:**
   - Attendance card

2. **Timekeeper wanted**
   - Quiz #2 is scheduled today.
   - We should start Quiz #2 at about 15 minutes before the end of the lecture today.
   - Can someone be a timekeeper?

3. **Quiz #3 should be scheduled on September 7th?**

4. **Programming Project #1 and MIPS assembly language**
   - Will be introduced this Wednesday (8/31)

5. **Discuss the “leftover questions””**
   - **#5:** What are the two primary advantages of learning “computer organization and architecture” by CS majors?
   - **#6:** What does “efficient” in “efficient computer programs” mean? Mention at least two.
   - **#15:** What does “performance” in computer system mean (at least four examples)?
6. **Introduce “Arithmetic.ppt”**

- The (major) number systems the existing processors use.
  
  - They look similar to those numbers humans ("we") see, but they work different ways inside of processors. Developing programs without understanding how they work can cause serious problems.
  
  - Understanding assembly languages unfortunately requires this knowledge because you start “speaking the language of processors” by writing programs in assembly languages (you are no longer using a high-level programming language).

- Quiz #3 Possible Question List (PART I) has been posted.
  
  - Today (8/29), we will cover PART I of the Quiz #3 questions.

7. **Quiz #6 should be started at about 15 minutes before the end of the lecture.**