

## Team Project (50 points) -- CS3650 Summer 2021

We have formed teams and chosen a CPU for each team at Participation assignment P3.

Goals of team project:

- (1) Appreciate alternative and advanced computer architectures such as multicores etc.
- (2) Build up remote collaboration skills including the ability to use remote collaboration tool/platform (e.g. slack, github, discord, .... any one tool/platform of team's choice).

Project specification

Research on a new (or relatively new) processor/CPU architecture with cutting edge technology (examples: multicore architecture, graphics processing units, shared-memory or message-passing multiprocessors, ...). The processor could be a product already on the market, or could be something with mature research results.

Your project should study and present the following information associated with the processor of your choice and make a presentation file:

1. The product information (processor model, speed, ... -- information for marketing this product to the general public or information available from the research.) Suggest to have 1- 3 slides.
2. Features of this product (architecture design, performance, comparison with other similar products etc.) Suggest to have 2 – 4 slides.
3. Cutting-edge technology used in the processor such as multithreading, multicore, multi-level caches or any other advanced CPU design technologies used in this product – discuss *one* such technology in depth.) 3 – 4 slides.
4. Your summary and conclusion (team's own evaluation of this product based on your knowledge in the field of computer architecture). 1 or 2 slides.
5. A discussion of remote collaboration experience. 1 or 2 slides.

Deliverable

A Powerpoint (or similar) presentation that includes the above four aspects. Oral presentation is not required. Just submit the file in pdf or pptx format on Canvas.

Grading criteria:

Product info (10 points): key information of the product available?

Product features (15 points): a clear presentation of architecture design is a must, other features optional.

Technology (20 points): what technology is it? What is its operational principle? May use an example or an illustration to describe.

Summary (5 points): Evidence of your own judgement.

Remote collaboration (5 bonus points): how you collaborate with your teammates?

Sharing of experiences (positive or negative, either one or both welcome.)