Congressional App Challenge & Swift Student Challenge & USACO

Schedule

- 2 hours per class
- Preferred twice a week
- 24 weeks flexible schedule
- Project-oriented that students will have hands on real-world project
- Final goal is to reach college CS & CE level and win the competition
- 2 – 4 hours homework assignment each week
- May invite coffee chat with top school visitors in person if Covid-19 is getting better
- This is similar to college course schedule
- I am trying to make student adjust college life ahead

Requirement

- MacBook Pro or Air, unless it run Mac OS Macintosh operating system if students want to participate in Swift Student Challenge (Mac OS support C++, C, Python, Java, Swift, Objective-C and others)

- Windows OS if students want to work on programming languages other than Swift and Objective-C (No Apple stuffs, that means.)

- No coding background / at least 6 months coding experience

- Entry level mathematics such as trigonometry and pre calculus

Comparison

- Congressional App Challenge allows students to use different programming languages such as C++, Python, Java, Swift, HTML…

- Deadline : each year mid October. (10/19/2020)

- Age: must be in middle school or higher

- Location: United States

- Group : individual or groups(no more than 4 individual)

- Hardware : N/A

- Swift Student Challenge requires only Swift Programming language since it is one of the main programming language to build Apple's product.

- Age : must be more than 13

- Location : All over the world

- Deadline : each year mid June

- Group: individual

- Hardware : Mac Book Pro / Air

USACO

- USACO stands for United States of America Computing Olympiad
- The USACO supports computing education in the USA and worldwide by identifying, motivating, and training high-school computing students at all levels
- Programming languages : Java, Python, C++ & C