Branham High School

2019-2020 School Year

AP Computer Science A
Summer Homework

Purpose

The summer homework is designed to prepare students for a course as well as provide a brief glimpse into computer science. Students are not expected to have any programming or Java experience prior to the start of the course.

Contact Information

If you have any questions about the course or the summer homework, you can email me at sturner@cuhsd.org or mrmathturner@gmail.com.

Summer Assignments

The following assignments are due before the six-week grading period of the 2018-2019 school year. Students are encouraged to complete the assignments earlier as we will reference the assignments in class. Examples of each assignment will be posted on website www.mathturner.com under the "AP CSA Summer" tab.

Assignment One: Online Typing Certificate

1. Join the online typing class at: http://www.ratatype.com/groups/6243317/.
2. Create an account and practice until you achieve at least 50 wpm. If you cannot reach a speed of 50 wpm, print two typing certificates displaying an improvement of at least 15 wpm.
3. Bring your certificate(s) with you on the first day of class.

Assignment Two: Decision Trees

1. Navigate to the website https://writer.inklestudios.com/.

2. Create an account and create a story about a past vacation.

3. The story must have at least five levels where each part of the story has two options to follow. Not all paths must reach the fifth level, but at least one path must finish on level five.

4. Click the "map" and take a screenshot of the full map of your story. Print the screenshot and bring it to the first day of class.

Assignment Three: Drag and Drop Programming

1. Navigate to the website https://blockly-games.appspot.com/?lang=en.

2. Complete each of the tasks for the Puzzle, Maze, Bird, and Turtle games.

3. Take a screenshot the main page showing a completed green circumference (covers about ¾ of the circumference) around the four above specified games.

4. Print the screenshot and bring it to the first day of class.

Assignment Four: Short Essay

1. Research what computer science is in preparation for a class discussion on "What is Computer Science?". Then, choose a computer science topic that interests you. Find and read one article related to your chosen topic.

2. Type a three-paragraph essay between one and two double-spaced pages in length. The first paragraph should be a summary of the article read. The second paragraph should explain the significance of the topic to computer science. The last paragraph should reflect on how the topic impacts you now or potentially in the future.

3. In text citations are not required. Include a link to the chosen article at the end of the paper. Print your essay and bring it to the first day of class.