



Final Project

The Final Project

You can do ONE of the following:

- 1) Create a Google slides of an interesting computer science concept, topic or idea. The purpose of the slides is to teach the concept.
 - A. Must be at least 15 slides.
 - B. Include pictures/diagrams/videos to help illustrate concepts
 - C. Include references at the end of the slides.
 - D. Must be self-contained. A person can read through the slides and understand the content.
 - E. Use material/information from tutorials, blogs, news articles, textbooks to create slides.
 - F. Some ideas: bitcoin and the blockchain, artificial intelligence, graph search algorithms(A*, Dijkstra's algorithm), cloud computing, cybersecurity, natural language processing, virtual reality, metaverse, ethical hacking, neural networks and deep learning, data security, data analytics, robotics, web development, P vs NP.

The Final Task

2) Create a Python Jupyter notebook to teach a Python concept, a math concept, a programming algorithm, or explaining a Python library.

- A. Must include both Markdown and code
- B. The markdown explains and illustrates the concepts
- C. Include code(functions, algorithms).
- D. A few problems that allow the users to try some coding.
- E. Similar to the notebooks we have in class.
- F. Examples: Caesar Cipher or Diffie-Hellman cryptography using Python, useful Python libraries(matplotlib, pillow, scipy, pandas)

3) Use replit or Processing to write a game, application, or simulation. Must be different than the Create Task.

Presentation: Present to the class(8-12 minutes). Seniors will present first and must do it before their last day.