

Create

Applications from Ideas

1. Video

Submit one video in .mp4, .wmv, .avi, or .mov format that demonstrates the running of at least one significant feature of your program. Your video must not exceed 1 minute in length and must not exceed 30MB in size.

2. Written Responses

Submit one PDF file in which you respond directly to each prompt. Clearly label your responses 2a–2d in order. Your response to all prompts combined must not exceed 750 words, exclusive of the Program Code.

Program Purpose and Development

2a. Provide a written response or audio narration in your video that:

- identifies the programming language;
- identifies the purpose of your program; and
- explains what the video illustrates.

(Approximately 150 words)

2b. Describe the incremental and iterative development process of your program, focusing on two distinct points in that process. Describe the difficulties and/or opportunities you encountered and how they were resolved or incorporated. In your description clearly indicate whether the development described was collaborative or independent. At least one of these points must refer to independent program development.

(Approximately 200 words)

2c. Capture and paste the program code segment that implements an algorithm (marked with an oval in section 3 below) that is fundamental for your program to achieve its intended purpose. Your code segment must include an algorithm that integrates other algorithms and integrates mathematical and/or logical concepts. Describe how each algorithm within your selected algorithm functions independently, as well as in combination with others, to form a new algorithm that helps to achieve the intended purpose of the program.

(Approximately 200 words)

2d. Capture and paste the program code segment that contains an abstraction you developed (marked with a rectangle in section 3 below). Your abstraction should integrate mathematical and logical concepts. Explain how your abstraction helped manage the complexity of your program.

(Approximately 200 words)

3. Program Code

Capture and paste your entire program code in this section.

- Mark with an oval the segment of program code that implements the algorithm you created for your program that integrates other algorithms and integrates mathematical and /or logical concepts.
- Mark with a rectangle the segment of program code that represents an abstraction you developed.
- Include comments or citations for program code that has been written by someone else.