Identify the design architecture you think the Project 1 team used and explain why you think that (250-350 words – 5%).

Project 1's team used a pipe-and-filter architecture Most of the other architectures relied on a network of machines, but the program from project 1 was run on a local machine. It is not an event-driven architecture because the program doesn't oversee any substantial changes in state throughout it's runtime; it simply executes logic upon user input and ends when all ships are sunk. The only thing that could be considered as an event is mouse clicks but considering this is user input that could be provided with a typed command it seems that clicks can simply be categorized as input for a pipe-and-filter style architecture. Project 1 takes an input and processes the input through different modules along a pipeline to produce an output to the display.

Project 1's team designed a workflow that starts by taking an input: number of ships, it pipes this input to a class that allows each user to take turns placing ships. When the user makes a valid selection this input is piped into arrays that hold the user ships. The user ships are then piped onto the ship board and the game can begin. Users take turns placing ships and whether they hit or miss their input is piped to an array holding hits and misses respectively. All of the data that has been piped in from the user allows the program to perform logic and filter the information to output a simple visual interface for the user. The overall workflow of the program is based on taking inputs and providing output in the form of the current player ship and target boards until the game is over. All to say project 1 uses a pipe-and-filter architecture.