

Design Paradigm

A design paradigm is a model or way of organizing a project that includes various parts, such as design, functions, order and form of execution. The paradigm that we believe the team that created the project one that we are using for project two is Top-Down functional decomposition. Top-Down functional decomposition is a paradigm model that starts with the main overall goal at the top and breaks down into different segments that are attached under the main goal. These segments can also be broken down all the way to the easy to make components. These segments are described in much greater detail and can include the order of completion. The result of this type of model is known as an Architectural design. This referred to the complex thought process it requires, which is also known as high-level design. This method is a good start to most situations or projects because trying to attack a problem all at once normally won't work out well and will leave to a much more complex way of fixing and completing.

The Top-Down functional decomposition is shown in the project 1 code based on the functions and flow of the code we were given. As shown in the javascript and html of the project, the purpose of implementing many of the smaller functions is for easier use in the main functions. This shows that they started with the bigger picture and broke it down to small goals that would allow functions to be made and used throughout the whole project. An example is the 'fireRound' function that includes knowing the x and y values, which is taken from the mouseClicked function and compared with the array of ship placement for each player, and then displays the results on the current players target board and the other players ship board. This is a great example of how they worked from the main goal of creating a battleship game, to a sub goal of making a hit or miss function, that uses the function that keeps track of mouse clicks, the ship array, and displays output.