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APCE End-of-Year Assignment Individual Report

Because I completed this project on my own, I wrote every single class and method found within the project, essentially creating the game from scratch. This effort included working out the logic and syntax of the code, understanding the details of how the game should run, and researching all the Java classes involved. I also wrote the tutorial, credits, and instructions on how to run the game, created the API for the classes, discovered how to implement sound and did so, made explanations on how data structures were used, and prepared all deliverables for the final turn in of the project. The code I created included the classes for the game logic (the Snake, Segment, and Food classes), the graphical panels (MenuPanel, SnakePanel, DiffPanel, OptionPanel), sound (Sound), and the driver (SnakeDriver). This work of course had a vital impact on the project. Without it, the game would not exist, and there would be nothing to turn in. Each individual aspect had an important function as well; the Snake, Segment, and Food classes allowed for the virtual running of the game, while the panel classes gave graphical representations. The sound, tutorial, and credits augmented the experience of the game and the driver allowed the program to actually run. The instructions on running the game, API, explanations of data structures, and all deliverables fulfilled the requirements and guidelines of the project.

As a hands-on experience in creating a game, the project taught various lessons. Firstly, the project acted as a good summarizer of the year’s curriculum on data structures, requiring me to research each data structure and consider how it could possibly used in my game. When I did decide on using ArrayLists and Maps, I had to implement these classes and effectively use their methods and various intricacies. Second, I learned of some useful classes involved in graphics and other auxiliary classes that could greatly aid my project. For example, I learned of the Rectangle class, among the other Shape classes, which could allow me to easily represent the Snake and to check for contact among the elements of the game. Finally, I learned how to create a proper API with javadoc commenting. This simple but immensely useful knowledge will allow me to create more professional and easily understandable programs and the future and is one of the most fundamental things I will carry from this class with me.