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APCS End-of-Year Assignment: Instructions and Data Structures

On the root of the USB, navigate to within the Snake folder. Find the SnakeDriver.java file. Run this file. A menu will appear with various buttons. Click the “Instructions” button. This button will teach you how to play the game.

IMPORTANT!!! DATA STRUCTURES: I used ArrayList and Map data structures. I used an ArrayList of Segment classes within the Snake class. This ArrayList forms the digital representation of the Snake, that is, once can imagine the Snake’s body as being linked Segments, each connected to another one. This allowed me to easily increase or decrease Snake size by adding or removing elements of the ArrayList or to access particular Segments (such as the head, the first Segment in the ArrayList) by using the get( ) method.

I also used the Map data structure. This data structure consisted of Integer keys, which stood for keyboard characters, which were mapped to other Integers, also standing for keyboard characters. The keys were the function of the keyboard characters that the program would implement, while the mapped values were the keyboard characters which would cause the program to run these functions. This allowed me to easily change which keyboard characters caused which functions, by changing which keys mapped to which values. This Map structure was used in various places throughout the project, though it served the same use in each location. The structure was used in the MenuPanel, SnakePanel, OptionPanel, and DiffPanel classes.

These instructions will be located in the Snake folder of the USB, along with all other necessary files, including past documents which have already been turned in.