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Homework 07 - Snake Any Direction

We're going to improve our snake game by allowing it to move in any direction. The trick to this is only getting the head to move. The rest of the body will shift over. The body segment will follow the location of the head from the last frame, the tail will follow the body segment a frame later.

Detecting keypresses might seem hard but there's actually a really elegant way to handle it. The last key pressed is stored in memory location **\$FF**. Each key corresponds with a different value. It's a good idea to define these like so:

```
define ASCII_w      $77
define ASCII_a      $61
define ASCII_s      $73
define ASCII_d      $64
```

We also need to detect collisions with the edges. If the head escapes out of bounds then the game should end. If you haven't already, you should now add a **slowDown** section to slow down your program. Your code should have the following sections now:

```
init
gameLoop
-   readKeys          - Change a variable when a new key is pressed
-   updateSnake       - Add code to check if the head will collide
-   drawSnake          - Slow down execution by running nop each loop
-   slowDown
```

Submission

Please submit your code through Titanium formatted as
lastname_07.asm

Your program should have a few comments indicating your name, a short description of the program.

Please make comments throughout your code. Comments should be less focused on **what** you're doing but rather on **why** you're doing it that way.

Notes

I realize there is plenty of source code available with the snake game implemented in 6502 assembly. Avoid looking at this at all costs. Not only is it easy to cheat, it's easier for me to catch you. I am very aware of what I've taught you and what you are capable of given your last set of assignments. If I catch you cheating, even a little on this assignment or any other, I will drop you from the class with an F and put a permanent note in your transcripts.



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