SIT111 Computer Systems

Fill.asm is a program written in Hack assembly language. The program's primary goal is to change the appearance of the screen based on keyboard input.

The program starts by setting a memory location called status to -1. This value is used to determine whether a key is being pressed.

The program then enters a loop that continuously checks the value of the KBD memory location. If the value of KBD is not equal to zero, it means that a key is being pressed. In this case, the program sets the value of the ARG memory location to -1. This value is used to set all the pixels on the screen to black.

If the value of KBD is equal to zero, it means that no key is being pressed. In this case, the program sets the value of the ARG memory location to zero. This value is used to clear the screen.

The program then checks the value of the status memory location. If the value of status is equal to zero, it means that the screen is currently clear. In this case, the program sets the value of status to -1 and enters a loop that sets all the pixels on the screen to black.

If the value of status is not equal to zero, it means that the screen is currently black. In this case, the program sets the value of status to zero and enters a loop that clears the screen.

The program continues to run in this loop, constantly checking for keyboard input and changing the appearance of the screen accordingly.