Sketch It! – Algorithm

## Main Menu (Function)

* The first thing that will launch is the main menu
* Loads a background image, and then I blit it on the screen
* Events loop
  + For the mouse being in a certain positions and the left mouse button is clicked it will load one of the following:
    - ‘Play’ mode
    - ‘Free’ mode
    - Exit
* Music playing in the background using the pygame mixer in an infinite loop

## “Play” Mode (Function)

* Loads an image which prompts the user to select one player or two player
* Event loop
  + For a mouse being in a certain position in the “cloud” of the picture
    - Single Player
    - Multiplayer
* Single Player
  + Setting Boolean variables for:
    - Brush colours
    - Painting operator
    - Erasing operator
    - “KeepGoing” loop
    - A variable to get a new word to draw as part of the game
  + Loads the default brush for painting
  + Loads the tutorial picture to show you what to do
  + Keeps it on for ~ 5 seconds
  + Load the game background with the colour switches on the side and the brush sizes too
  + While keepGoing loop
    - Identifying a “word” variable to have python randomly choose a word for you to draw
      * List of words, and picked using the random function
      * Setting the font
      * Blitting the text back to the user
    - Identifying a “painting” variable to make python understand what is going on when painting is set to “True”
      * Sets where it paints (distance away from the cursor)
      * Blit it on the screen
    - Identifying an “undo” function to make python understand when undo is set to “True”
      * Blits the variable that will be created later on the screen
  + Event loop
    - For the mouse being in a certain position in a corner
      * Launches the Main Menu
    - For the mouse being in the “Center” of the screen
      * This is the drawing area
      * If the mouse button is down it will paint
      * It will also save a copy for redo later
      * Multiple statements that will set the Boolean operators for the colours to true and false, and loads the default brush for that colour if the mouse is in the area with the colour squares
      * Eraser button which is basically a white brush if the mouse is in that area
      * If a mouse is in the area where the 3 brush sizes are
        + Depending on the colour it will have that size of that colour brush loaded
      * If you click a finish or done button with the mouse, then you will get the screen cleared and a new word
      * If you press the backspace button on the keyboard, it will undo
* Multi player
  + Carbon copy of everything that is shown except:
    - Different background for the painting
    - Different tutorial
    - No “word” variable, but instead a variable which will launch a guessing box for multiplayer, by clicking the “Guess” button

## Free Mode (Function)

* Free mode is the skeleton version of this program
* No game approach to it
* Basic Paint program for whoever wants it
* Same functionality except:
  + Different background
  + No tutorial
  + No guessing, and no words to draw

## Quit

* It ends the program!