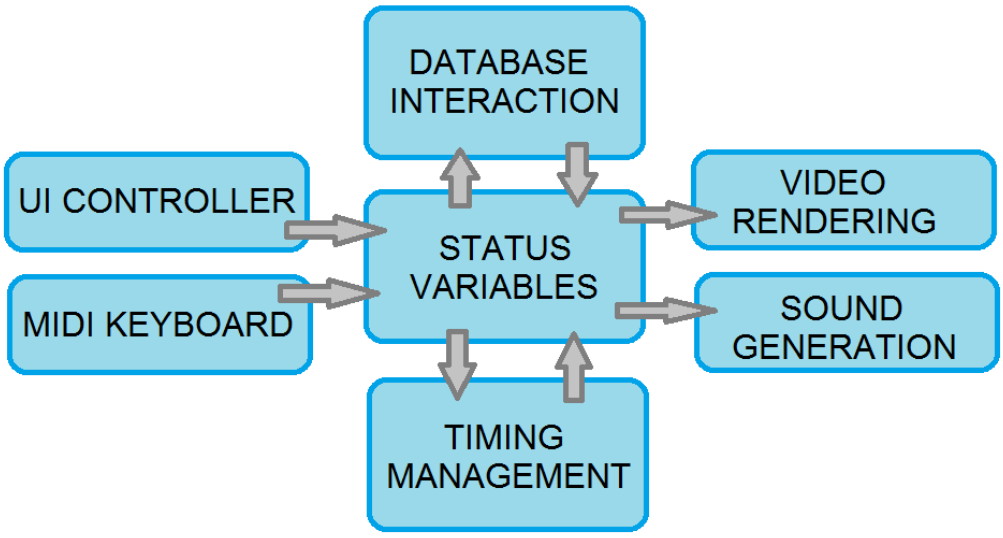
Jazz Long Code Map



1 Setup

The Setup Section includes:

- Setup of the Database
- Setup of the MIDI Controller

The database is initialized and a function "get" is called to download the pre-saved names and the presets for the drum machine. On the loading of the page, the MIDI controller is detected and it is assigned the event listener functions, defined in the "Controller" Section.

2 Status

This sections contains the definitions of all the global constants and variables.

- The path of the local folder is extracted
- The samples for the Drum Machine are preloaded
- Many useful lists are defined (to access data in list[index] form)
- All the status variables are defined. Many of them are enclosed as object properties to avoid teamwork issues (giving variables the same name...)
- Repetitive parts of the html are dynamically created
- The timing is managed, in particular:
  - The function next_sub_beat() manages everything that should be refreshed with the rate of the music tatum. It is called by a setInterval with rate calculated on the bpm and on the metric structure of the selected rhythm.
  - The function next_frame() manages continuous animations that should be updated at frame rate. It is called recursively via the method requestAnimationFrame()
- The interaction with the database is enclosed in the functions get_db() and set_db()

3 Controller

This sections contains the listeners to every user-triggered event. A state machine is implemented to display only the right page of the entire web app. Every clickable object, every input, every human interaction, including the MIDI events from the keyboard is being listened to by one of the functions here defined. All the functions are grouped by the position of the elements that triggers the event. In the comments you can see the different groups (Intro page, harmonic section, drum machine, etc..)

4 Render

This sections contains all the functions related to the video rendering of the interface. They are again grouped in Pages, Intro, Harmonic section, drum machine etc... and they contain all the behaviour of objects changing colour, changing name, changing position. All the animations are included.

5 Sound

The functions in this sections manage the activation and de-activation of sounds being played by the app. This includes the drums, the chords and the low-latency direct sound triggered by the MIDI controller. The generation mechanism of the drum sounds is slightly different from the chords because the drum samples are likely to overlap (each sample is cloned before being played) whereas other sounds are interrupted before being played again.

6 easter egg

The code contains a nice easter egg, but we are not going to tell where it is. Good luck!