SW Block Diagram

Classes

- **Controller class**
  - start(self)
    - Initializes all components
    - Global loop value (boolean)
    - Global loop dictionary from an instrument to a list of interval values
- **Keypad class**
  - Dictionary of instrument sounds
  - boot(self)
    - Light up all keys for 2 sec to indicate that the device is on
  - handle_press(self)
    - Listen to the key press
    - Play the corresponding instrument, speaker.play(instrument)
    - If loop value is true, save the interval values in a list and set it to the dictionary
  - save_recording(self, recording)
    - Add the recording as an instrument to the bottom left key in the instrument dictionary
- **Record button class (Red arcade button)**
  - start_record(self)
    - Listen to the button press
    - Start recording using USB Mic
    - Flash the LED to indicate that it is recording
  - stop_record(self)
    - Listen to the button press
    - Stop and save the recording, keypad.save_recording(recording).
    - Turn off the LED
- **Loop button class (Clear arcade button)**
  - start_loop(self)
    - Listen to the button press
    - Set loop value to true
  - stop_loop(self)
    - Listen to the button press
    - Set loop value to false
- **Speaker class**
  - play(self, instrument)
    - Play the input instrument once.
  - loop(self)
    - For all instruments in the loop dictionary, iteratively call .play(instrument) with the set time intervals.

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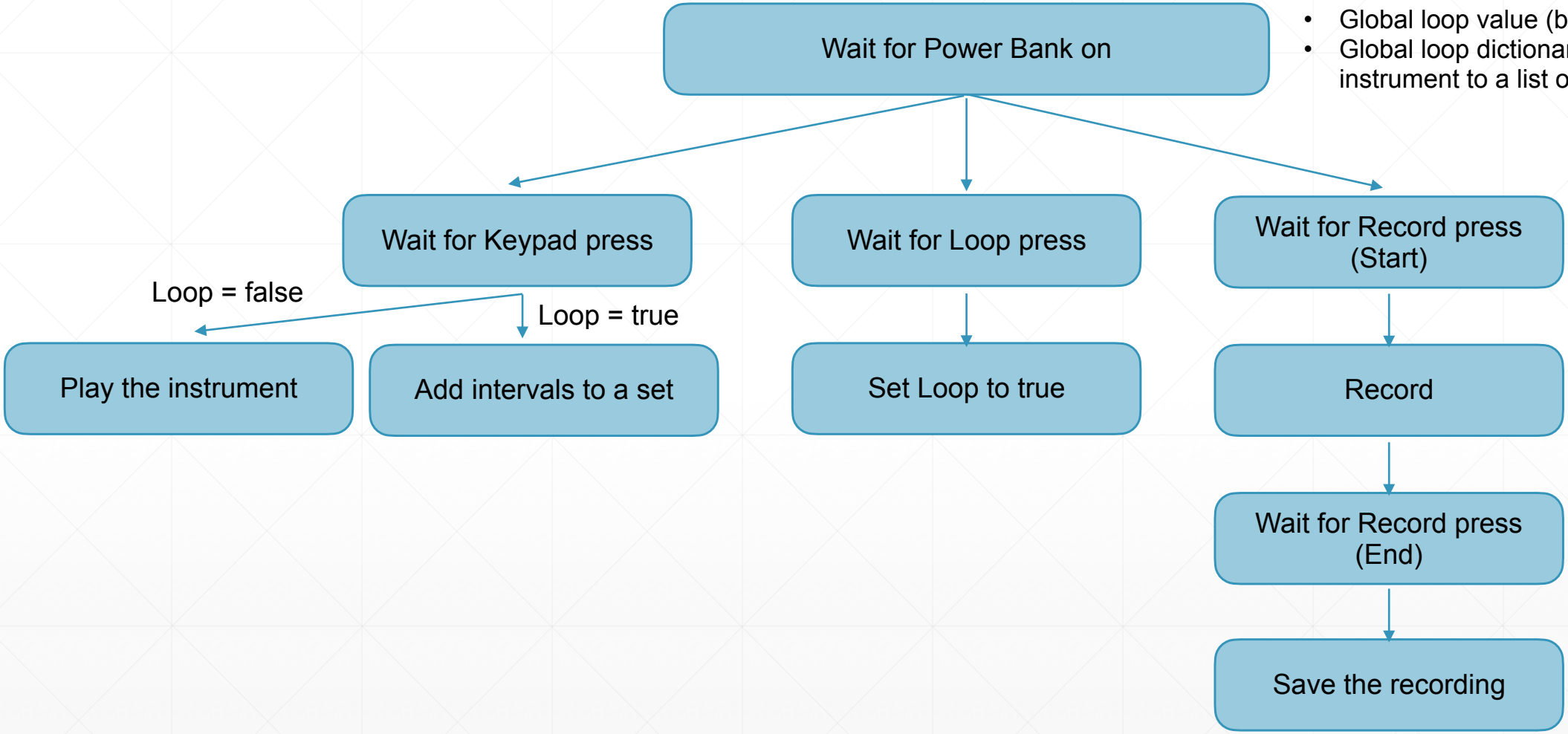

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