

## Python homework

Please create a python script to update contents of a database, stored in a JSON formatted text file.

Structure of data file:

```
[
    {
        "identifier": "abc123", identifier_image: "file_name",
        "results": [1, 3, 2, 4, 1], "result_image": "file_name",
        "confirmed_identifier": "ABC124",
        "confirmed_results": [1, 3, 2, 4, 1]
    },
    {
        "identifier": "abc567", identifier_image: "file_name",
        "results": [2, 3, 4, 3, 2], "result_image": "file_name",
        "confirmed_identifier": "abc567",
        "confirmed_results": [2, 3, 1, 3, 2]
    },
    ...
]
```

The data file:

- is a list of associated arrays (dictionary, record)
- records could miss values of fields with "confirmed\_" name prefix, in this case, their value is equal to the field named without "confirmed\_" prefix
- could contain any number of records
- result and confirmed\_results fields of records are lists, therefore they could contain any number of integers
- File name is a parameter of the script
- modified values of confirmed fields are saved (updated) in the same file.

The task is to create a python script with graphical user interface, which provides option to modify confirmed values extracted from images.

Records to be modified can be searched by confirmed\_identifier (if not provided, then identifier) or by manual selection.

Only fields with "confirmed\_" name prefix could be modified (default value is the given without name prefix).

The identifier and results fields and images are also visible.

Possible GUI design:

The GUI design is contained within a blue rectangular border. At the top left, the text 'Identifier:' is followed by the value 'abc123'. To its right is a large rectangular box labeled 'Identifier image'. Below 'Identifier:', the text 'Confirmed identifier:' is followed by a small rectangular box containing the value 'ABC128'. In the middle section, 'Results:' is followed by the value '1, 2, 3, 4, 5, 6, 7'. Below this, 'Confirmed results:' is followed by a long rectangular box containing the same value '1, 2, 3, 4, 5, 6, 7'. Below the confirmed results box is a large rectangular box labeled 'Results images'. At the bottom, the text 'Identifier to find :' is followed by a rectangular input box. To the left of this input box is a button labeled 'Show previous'. To the right is a button labeled 'Search'. Further to the right is a button labeled 'Show next'.

Names of input and output data files can be constants in the script.

Output data file has to contain all records and all fields (including prefixed ones).