**Survo-puzzle**

Survo-puzzle: The task is to fill an m\*n table by integers 1, 2,...(m\*n) so that each of these numbers appear only once. Their row and column sums are equal to integers given on the right side and the bottom of the table. Often some of integers are given readily in the table in order to guarantee uniqueness of the solution.

Upon running interface.py program, a GUI interface is opened which displays a blank Survo-puzzle board of 3\*3 along with one additional column for Row-sum digits and one additional row for Column-sum digits.

Command to run the program:

**Python interface.py**

Input:

* Enter the values in the last column of the grid (row-sum)
* enter values in the last row of the grid(column-sum)
* click on 'Solve' button to get the output.

'Clear' button is used to clear the input values.

'Quit' button is used to exit the program.

Example1:

|  |  |  |  |
| --- | --- | --- | --- |
| 3 | 7 | 2 | **12** |
| 8 | 9 | 6 | **23** |
| 4 | 1 | 5 | **10** |
| **15** | **17** | **13** |  |

Example 2:

|  |  |  |  |
| --- | --- | --- | --- |
| 2 | 5 | 3 | **10** |
| 6 | 7 | 4 | **17** |
| 9 | 1 | 8 | **18** |
| **17** | **13** | **15** |  |

Example 3:

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 2 | 3 | **6** |
| 4 | 5 | 6 | **15** |
| 7 | 8 | 9 | **24** |
| **12** | **15** | **18** |  |

A message is displayed in a dialog box if invalid input is given or if the puzzle has no output.