

Diagram illustrating the structure of the matrix M (size $n \times n$), which is composed of several blocks:

- A top-left block (size $i+j$) containing a sequence of 1s along the diagonal, followed by a block of 0s.
- A top-right block (size $i+j$) containing a sequence of 1s along the diagonal, followed by a block of 0s.
- A bottom-left block (size i) containing a sequence of 1s along the diagonal, followed by a block of 0s.
- A bottom-right block (size j) containing a sequence of 1s along the diagonal.

Red arrows indicate the indices i and j corresponding to the dimensions of the blocks. Blue arrows indicate the indices i and j corresponding to the dimensions of the blocks.