Suppose there are 6 teams in a tournament.

i/j	T1	T2	T3	T4	T5	T6
T1		2	3	4	5	1
T2	2		4	5	1	2
T3	3	4		1	2	3
T4	4	5	1		3	4
T5	5	1	2	3		5
T6	1	3	5	2	4	

This solution basically tells you how to fill the 6x6 matrix, and each entry in the matrix is the match between the teams in the row vs column.
Consider few rules in the algorithm
1. Increment value in the matrix from left to right and top to bottom. `mat[0][0] = 1`
2. Whenever `i == j`, then fill the matrix at `[n-1][j]` instead at `[i][j]`. Basically, no entry will be there at `i==j`
3. And whenever entry in the matrix reaches to 6, make it 1

We will follow this rule and start filling the matrix from `[0][0]` column-wise. Means first we will fill every row of 0th column then move to 1st column and so.
- At `[0][0]`, apply rule 2. So fill `mat[n-1][0] = 0`
- At `mat[1][0]`, fill next number ie 2 and similarly for `[2][0], [3][0], [4][0]`
- And now column 1, starts with value 2
- `mat[1][0] = 2;`
- At `mat[1][1]` apply rule 2, fill last row of current column ie `mat[n-1][1] = 3`

If you want that every team should play only one game with other team, use lower triangle.
And if you want that every team should play 2 games with other teams, one home and away use both lower and upper triangle.

Hope you guys understand my solution.