Sparse matrices are those **matrices that have the majority of their elements equal to zero**. In other words, the sparse matrix can be defined as the matrix that has a greater number of zero elements than the non-zero elements.

```
#include <stdio.h>


void main ()

{

  int matrix[10][10];

  int i, j, m, n;

  int sparse_counter = 0;


  printf("Enter the order of the matix \n");

  scanf("%d %d", &m, &n);

  printf("Enter the elements of the matix \n");

  for (i = 0; i < m; ++i)

  {

    for (j = 0; j < n; ++j)

    {

      scanf("%d", &matrix[i][j]);

      if (matrix[i][j] == 0)

      {

        ++sparse_counter;

      }

    }

  }

  if (sparse_counter > ((m * n) / 2))

  {

    printf("The given matrix is Sparse Matrix !!! \n");
```

end of 3rd code

```
    }
    else
        printf("The given matrix is not a Sparse Matrix \n");
    printf("There are %d number of Zeros.", sparse_counter);
}
```