
TASK 2 - Understanding Design Patterns in C

matrix.h

```
#ifndef MAT
#define MAT
```

```
typedef struct _matrix matrix_t;
matrix_t *matrix_create(matrix_t* n_i, matrix_t* n_j); //creating a new matrix
void matrix_del(matrix_t** matrix); //deleting the matrix
```

```
#endif
```

matrix.c

```
#include<stdio.h>
#include<matrix.h>
```

```
typedef struct _matrix{
    int i,j; //rows and columns
    float *value; // data
}matrix_t;
```

```
matrix_t *matrix_create(matrix_t* int n_i, matrix_t* int n_j);
{
    struct matrix_t *matrix = malloc(sizeof(matrix))
    matrix->i=n_i;
    matrix->j=n_j;
    matrix->value = malloc( i * j * sizeof(float));
    return matrix
}
```

```
void matrix_del(matrix_t* matrix)
{
    free(matrix->value)
    free(matrix)
}
```