

Real Time Group

מרכז למשרות מקצועיות והשמה בתעשיית הדימוק

Write a program which implements a FIFO Queue (First In First Out), the program must have the following requirements:

1) a pointer to function which choose one of the functions in the menu:

Enter Your Choice :

- 1: Init Queue
- 2: Read Queue
- 3: Write Queue
- 4: Display Queue
- 5: Delete Queue
- 6: Exit Program

2) The Queue must be pointer to an array of pointers, each one is a string, use (#define) to determine the number of the array elements, and other one to determine the size of each pointer (string). (think about dynamic allocation).

3) implement the function of **get_string()** and use it to get a string from the user.

4) Each function must do the following:

- **init Queue:** initialize the Queue.
- **Read Queue:** print the string according to the concept of FIFO and delete this string from the Queue buffer.
- **Write Queue:** get a string from the user to enter it to the Queue.
- **Display Queue:** show all the strings in the Queue according to the concept of FIFO. (without deleting anyone of the strings).
- **Delete Queue:** delete all the Queue, **be careful, you should free it correctly.**

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רח' רוזנסקי 14 טל. 077-7067057 / 050-3309319 פקס 0775067058

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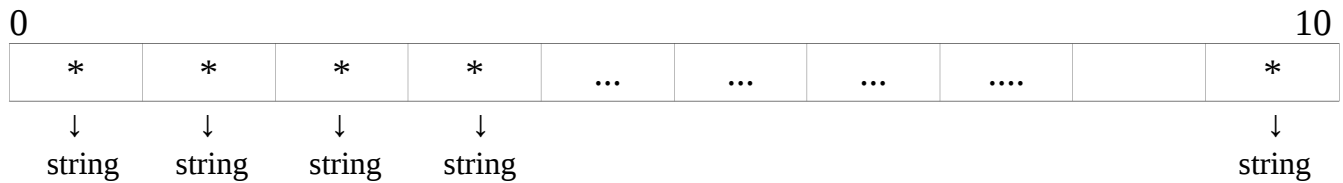
- **Exit Program:** exit the program.

Hints: use Global variables to make things easier.

```
#define NUM 10
#define SIZE 20
int REAR=0;
int FRONT=0;
char **pQueue;
```

REAR, FRONT – indexes for the Queue to determine the Start and the End of the Queue

QUEUE:



- every Element of the Queue (*), is a pointer to String of 'SIZE' Characters.

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