Assigment 1- FIFO

V3.0

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Chapter 1

Bug List

File MY_FIFO.h

No known bugs.

File test.c

No known bugs.

File test2.c

No known bugs.

File test3.c

No known bugs.

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

Chapter 3

File Documentation

3.1 MY_FIFO.c File Reference

```
#include "MY_FIFO.h"
#include <stdio.h>
#include <stdlib.h>
```

Include dependency graph for MY_FIFO.c:

3.2 MY_FIFO.h File Reference

FIFO means First In First Out.

This graph shows which files directly or indirectly include this file:

Functions

- void MyFIFOInit (int tamanho)

  *Initialize a FIFO with size **tamanho**.*
- void MyFIFOInsert (int add)

  Insert an element in the FIFO.
- int MyFIFORemove (void)

  remover o ultimo elemento inserido. Esta função remove o elemento mais antigo inserido no FIFO e devolve -1 se o FIFO estiver vazio
- int MyFIFOPeep (void)

  Apenas ver o elemento mais antigo do FIFO.
- int MyFIFOSize (void)

  numero total de elemntos Esta função devovlve o numero total de elentos que o FIFO contém no determinado momento e devolve este valor

3.2.1 Detailed Description

FIFO means First In First Out.

Contém as funções necessárias para criar um FIFO assim como adicionar ou remover elementos e saber qual o ultimo elemento.

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Date

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Bug No known bugs.

3.2.2 Function Documentation

3.2.2.1 MyFIFOInit()

```
void MyFIFOInit (
             int tamanho )
```

Initialize a FIFO with size **tamanho**.

A função inicializa um FIFO ("Array") com tamanho do argumento de entrada **tamanho** e não retorna nada Example of usage:

```
res = function1(param1, param2);
printf("res=%d\n",res);
```

Parameters

tamanho	size of the FIFO.

Returns

Não retorna nada.

3.2.2.2 MyFIFOInsert()

```
void MyFIFOInsert (
             int add )
```

Insert an element in the FIFO.

Esta função adiciona um determinado elemento inserido pelo utilizador na posição certa do FIFO. Tem assim como argumento o elemento a adicionar ao fifo e não retorna nada

```
res = function1(param1, param2);
printf("res=%d\n",res);
```

Parameters

add	elemento a adicionar ao FIFO.

Returns

Não retorna nada.

3.2.2.3 MyFIFOPeep()

```
int MyFIFOPeep (
             void  )
```

Apenas ver o elemento mais antigo do FIFO.

```
res = function1(param1, param2);
printf("res=%d\n",res);
```

Parameters

NO_args	sem argumentos

Returns

Retorna o valor mais antigo do FIFO

3.2.2.4 MyFIFORemove()

```
int MyFIFORemove (
             void  )
```

remover o ultimo elemento inserido. Esta função remove o elemento mais antigo inserido no FIFO e devolve -1 se o FIFO estiver vazio

```
res = function1(param1, param2);
printf("res=%d\n",res);
```

Parameters

No_param	No parameters

Returns

retorna -1 se nao existir elementos

3.2.2.5 MyFIFOSize()

```
int MyFIFOSize (
             void  )
```

numero total de elemntos Esta função devovlve o numero total de elentos que o FIFO contém no determinado momento e devolve este valor

```
res = function1(param1, param2);
printf("res=%d\n",res);
```

Parameters

no_args	nao tem argumentos
arg2	Description of the second parameter of the function.

Returns

retorna o numero de elemontos total do FIFO

3.3 test.c File Reference

test.c file brief decription

```
#include <stdio.h>
#include <stdlib.h>
#include "MY_FIFO.h"
```

Include dependency graph for test.c:

Functions

- int main (void)

  Brief decription of main().

3.3.1 Detailed Description

test.c file brief decription

Follows the detailed description of MY_FIFO.c. It is separated from the brief one by a blank line. In this case test.c is the file that contains the main() function.

Author

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Date

22 March 2022

Bug No known bugs.

3.3.2 Function Documentation

3.3.2.1 main()

```
int main (
            void )
```

Brief decription of main().

Here it goes the long description of main() main has no input arguments. It then prints the result and returns.

Returns

main() always returns 0

3.4 test2.c File Reference

test2.c file brief decription

```
#include <stdio.h>
#include <stdlib.h>
#include "MY_FIFO.h"
```

Include dependency graph for test2.c:

Functions

- int main (void)

  Brief decription of main().

3.4.1 Detailed Description

test2.c file brief decription

Follows the detailed description of MY_FIFO.c. It is separated from the brief one by a blank line. In this case test.c is the file that contains the main() function.

Author

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Date

22 March 2022

Bug No known bugs.

3.4.2 Function Documentation

3.4.2.1 main()

```
int main (
            void )
```

Brief decription of main().

Here it goes the long description of main() main has no input arguments. It then prints the result and returns.

Returns

main() always returns 0

3.5 test3.c File Reference

test3.c file brief decription

```
#include <stdio.h>
#include <stdlib.h>
#include "MY_FIFO.h"
```

Include dependency graph for test3.c:

Functions

- int main (void)

  Brief decription of main().

3.5.1 Detailed Description

test3.c file brief decription

Follows the detailed description of MY_FIFO.c. It is separated from the brief one by a blank line. In this case test.c is the file that contains the main() function.

Author

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Date

22 March 2022

Bug No known bugs.

3.5.2 Function Documentation

3.5.2.1 main()

```
int main (
            void  )
```

Brief decription of main().

Here it goes the long description of main() main has no input arguments. It then prints the result and returns.

Returns

main() always returns 0

Index