Project 5

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 2

Class Documentation

2.1 FlowShopScheduling Class Reference

Static Public Member Functions

- static int [ ][ ] mxFSS (int[ ][ ] p)
- static int FSS (int[ ][ ] p)
- static int [ ][ ] mxFSSB (int[ ][ ] p)
- static int FSSB (int[ ][ ] p)
- static int [ ][ ] mxFSSNW (int[ ][ ] p)
- static int FSSNW (int[ ][ ] p)

2.1.1 Detailed Description

Author

Junyu Lu

2.1.2 Member Function Documentation

2.1.2.1 FSS()

```
static int FlowShopScheduling.FSS (
            int p[][] )  [static]
```

find the makespan time in FSS situation

Parameters

p	

Returns

2.1.2.2 FSSB()

```
static int FlowShopScheduling.FSSB (
            int p[][] )  [static]
```

caculate the makespan time in FSSB situation

Parameters

p	

Returns

2.1.2.3 FSSNW()

```
static int FlowShopScheduling.FSSNW (
            int p[][] )  [static]
```

calculate the Total Flow Time in FSSNW situation

Parameters

p	

Returns

2.1.2.4 mxFSS()

```
static int [][] FlowShopScheduling.mxFSS (
            int p[][] )  [static]
```

generate the finishing time matrix in FSS situation

Parameters

p	

Returns

2.1.2.5 mxFSSB()

```
static int [][] FlowShopScheduling.mxFSSB (
            int p[][] )  [static]
```

generate the finishing time matrix in FSSB situation.

Parameters

p	

Returns

2.1.2.6 mxFSSNW()

```
static int [][] FlowShopScheduling.mxFSSNW (
            int p[][] )  [static]
```

generate the finishing time matrix in FSSNW situation

Parameters

p	

Returns

The documentation for this class was generated from the following file:

- D:/study/CS471/Lu_Project5/Project5/Lu_project5/src/project5/FlowShopScheduling.java

2.2 Main Class Reference

Static Public Member Functions

- static void main (String[ ] args)

2.2.1 Detailed Description

Author

Junyu Lu

2.2.2 Member Function Documentation

2.2.2.1 main()

```
static void Main.main (
            String [] args )  [static]
```

Parameters

args	the command line arguments

rows of a matrix

columns of a matrix

the total number of tailard sets

The documentation for this class was generated from the following file:

- D:/study/CS471/Lu_Project5/Project5/Lu_project5/src/project5/Main.java

2.3 Matrix Class Reference

Static Public Member Functions

- static int [ ][ ] transverse (int[ ][ ] mx)
- static int [ ][ ] copy (int[ ][ ] mx)
- static void printMx (int[ ][ ] mx)
- static int [ ][ ] **reorder** (int[ ][ ] mx, int[ ] order)

2.3.1 Detailed Description

Author

Junyu Lu

2.3.2 Member Function Documentation

2.3.2.1 copy()

```
static int [][] Matrix.copy (
            int mx[][] )  [static]
```

create a deep copy of an two dimensional array

Parameters

mx	

Returns

2.3.2.2 printMx()

```
static void Matrix.printMx (
            int mx[][] )  [static]
```

print matrix into standard output

Parameters

mx	

2.3.2.3 transverse()

```
static int [][] Matrix.transverse (
            int mx[][] )  [static]
```

Perform the transverse of a matrix

Parameters

mx	

Returns

The documentation for this class was generated from the following file:

- D:/study/CS471/Lu_Project5/Project5/Lu_project5/src/project5/Matrix.java

2.4 NEH Class Reference

Public Member Functions

- NEH (int[ ][ ] p)
  the array storing the origin total of the matrix
- int [ ] runNEH (int objectiveF, Output output)
- void initNEH ()
- int [ ] calculateTotal ()

2.4.1 Detailed Description

Author

Junyu Lu

2.4.2 Constructor & Destructor Documentation

2.4.2.1 NEH()

```
NEH.NEH (
            int p[][] )
```

the array storing the origin total of the matrix

the constructor taking in an 2-d array

Parameters

p	

2.4.3 Member Function Documentation

2.4.3.1 calculateTotal()

```
int [] NEH.calculateTotal ( )
```

calculate the sum of each array in matrix "comp", stored in array "total"

Returns

2.4.3.2 initNEH()

```
void NEH.initNEH ( )
```

initialization

2.4.3.3 runNEH()

```
int [] NEH.runNEH (
              int objectiveF,
              Output output )
```

Parameters

objectiveF	
output	

Returns

The documentation for this class was generated from the following file:

- D:/study/CS471/Lu_Project5/Project5/Lu_project5/src/project5/NEH.java

2.5 Output Class Reference

Public Member Functions

- Output (String fileName)

- void write (String s)
- void writeArrayInt (int[ ] arr)
- void writeMatrix (int[ ][ ] mx)
- void next ()
- void **close** ()

2.5.1 Detailed Description

Author

Junyu Lu

2.5.2 Constructor & Destructor Documentation

2.5.2.1 Output()

```
Output.Output (
            String fileName )
```

the constructor which use the file name for the output

Parameters

fileName	

2.5.3 Member Function Documentation

2.5.3.1 next()

```
void Output.next ( )
```

go to another line of the file

2.5.3.2 write()

```
void Output.write (
            String s )
```

write a string in the file

Parameters

s	

2.5.3.3 writeArrayInt()

```
void Output.writeArrayInt (
            int [] arr )
```

write an array in the file

Parameters

arr	

2.5.3.4 writeMatrix()

```
void Output.writeMatrix (
            int mx[][] )
```

write a matrix in the file

Parameters

mx	

The documentation for this class was generated from the following file:

- D:/study/CS471/Lu_Project5/Project5/Lu_project5/src/project5/Output.java