

My Project

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Chapter 1

File Index

1.1 File List

Here is a list of all files with brief descriptions:

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Chapter 2

File Documentation

2.1 D:/Facultate/Assignment/Change making/coinChange.c File Reference

```
#include <stdio.h>
#include "coinChange.h"
```

Macros

- #define `INF` 999
- #define `NCoins` 4
- #define `Amount` 68

Functions

- void `coinChange` (int denomination[`NCoins`+1], int nrcoins[`Amount`+1], int lastcoin[`Amount`+1])
- void `coinSet` (int denominations[`NCoins`+1], int lastcoin[`Amount`+1])

2.1.1 Macro Definition Documentation

2.1.1.1 Amount

```
#define Amount 68
```

Definition at line 6 of file coinChange.c.

2.1.1.2 INF

```
#define INF 999
```

Definition at line 4 of file coinChange.c.

2.1.1.3 NCoins

```
#define NCoins 4
```

Definition at line 5 of file coinChange.c.

2.1.2 Function Documentation

2.1.2.1 coinChange()

```
void coinChange (
    int denomination[NCoins+1],
    int nrcoins[Amount+1],
    int lastcoin[Amount+1] )
```

no. of coins used when the amount is 0 last coin used when the amount is 0

iterator1 is helping us going through every value from 1 to the given amount

iterator2 is used to go through every coin value of the denomination

Definition at line 10 of file coinChange.c.

2.1.2.2 coinSet()

```
void coinSet (
    int denominations[NCoins+1],
    int lastcoin[Amount+1] )
```

print the coins used to make change by subtracting from the current index of lastcoin array the value saved at the current index position

Definition at line 40 of file coinChange.c.

2.2 D:/Facultate/Assignment/Change making/coinChange.h File Reference

Macros

- `#define INF 999`
- `#define NCoins 4`
- `#define Amount 68`

Functions

- `void coinChange` (int denomination[NCoins+1], int nrcoins[Amount+1], int lastcoin[Amount+1])
- `void coinSet` (int denominations[NCoins+1], int lastcoin[Amount+1])

2.2.1 Macro Definition Documentation

2.2.1.1 Amount

```
#define Amount 68
```

Definition at line 5 of file coinChange.h.

2.2.1.2 INF

```
#define INF 999
```

Definition at line 3 of file coinChange.h.

2.2.1.3 NCoins

```
#define NCoins 4
```

Definition at line 4 of file coinChange.h.

2.2.2 Function Documentation

2.2.2.1 coinChange()

```
void coinChange (
    int denomination[NCoins+1],
    int nrcoins[Amount+1],
    int lastcoin[Amount+1] )
```

no. of coins used when the amount is 0 last coin used when the amount is 0

iterator1 is helping us going through every value from 1 to the given amount

iterator2 is used to go through every coin value of the denomination

no. of coins used when the amount is 0 last coin used when the amount is 0

iterator1 is helping us going through every value from 1 to the given amount

iterator2 is used to go through every coin value of the denomination

Definition at line 10 of file coinChange.c.

2.2.2.2 coinSet()

```
void coinSet (
    int denominations[NCoins+1],
    int lastcoin[Amount+1] )
```

print the coins used to make change by subtracting from the current index of lastcoin array the value saved at the current index position

print the coins used to make change by subtracting from the current index of lastcoin array the value saved at the current index position

Definition at line 40 of file coinChange.c.

2.3 D:/Facultate/Assignment/Change making/DEF.h File Reference

Macros

- `#define INF 999`
- `#define NCoins 4`
- `#define Amount 68`

2.3.1 Macro Definition Documentation

2.3.1.1 Amount

```
#define Amount 68
```

Definition at line 6 of file DEF.h.

2.3.1.2 INF

```
#define INF 999
```

Definition at line 4 of file DEF.h.

2.3.1.3 NCoins

```
#define NCoins 4
```

Definition at line 5 of file DEF.h.

2.4 D:/Facultate/Assignment/Change making/Greedy.c File Reference

```
#include <stdio.h>
#include "greedy.h"
```

Macros

- `#define INF 999`
- `#define NCoins 4`
- `#define Amount 68`

Functions

- void `greedy` (int denomination[`NCoins`+1], int coins[`Amount`+1])

2.4.1 Macro Definition Documentation

2.4.1.1 Amount

```
#define Amount 68
```

Definition at line 6 of file Greedy.c.

2.4.1.2 INF

```
#define INF 999
```

Definition at line 4 of file Greedy.c.

2.4.1.3 NCoins

```
#define NCoins 4
```

Definition at line 5 of file Greedy.c.

2.4.2 Function Documentation

2.4.2.1 greedy()

```
void greedy (
    int denomination[NCoins+1],
    int coins[Amount+1] )
```

Function greedy rst puts the denominations in descending order , then goes through the denominations if the current denomination is smaller the amount we need to form we nd how many times it ts in the amount by dividing the amount by the denomination and saving it in the nocoins variable , then we subtract the amount that we get by multiplying the nocoins with the denomination .

Definition at line 14 of file Greedy.c.

2.5 D:/Facultate/Assignment/Change making/greedy.h File Reference

Macros

- `#define INF 999`
- `#define NCoins 4`
- `#define Amount 68`

Functions

- void `greedy` (int denomination[`NCoins`+1], int coins[`Amount`+1])

2.5.1 Macro Definition Documentation

2.5.1.1 Amount

```
#define Amount 68
```

Definition at line 5 of file greedy.h.

2.5.1.2 INF

```
#define INF 999
```

Definition at line 3 of file greedy.h.

2.5.1.3 NCoins

```
#define NCoins 4
```

Definition at line 4 of file greedy.h.

2.5.2 Function Documentation

2.5.2.1 greedy()

```
void greedy (  
    int denomination[NCoins+1],  
    int coins[Amount+1] )
```

Function `greedy` first puts the denominations in descending order , then goes through the denominations if the current denomination is smaller the amount we need to form we find how many times it fits in the amount by dividing the amount by the denomination and saving it in the `nocoins` variable , then we subtract the amount that we get by multiplying the `nocoins` with the denomination .

Definition at line 14 of file Greedy.c.

2.6 D:/Facultate/Assignment/Change making/main.c File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include "coinChange.h"
#include "greedy.h"
```

Macros

- `#define INF 32517`
- `#define NCoins 4`
- `#define Amount 36`

Functions

- `int main ()`
- `void coinChange (int denomination[NCoins+1], int nrcoins[Amount+1], int lastcoin[Amount+1])`
- `void coinSet (int denominations[NCoins+1], int lastcoin[Amount+1])`
- `void greedy (int denomination[NCoins+1], int coins[Amount+1])`
- `void arr_display (int *arr, int arr_length)`

2.6.1 Macro Definition Documentation

2.6.1.1 Amount

```
#define Amount 36
```

Definition at line 11 of file main.c.

2.6.1.2 INF

```
#define INF 32517
```

Definition at line 9 of file main.c.

2.6.1.3 NCoins

```
#define NCoins 4
```

Definition at line 10 of file main.c.

2.6.2 Function Documentation

2.6.2.1 arr_display()

```
void arr_display (
    int * arr,
    int arr_length )
```

Definition at line 124 of file main.c.

2.6.2.2 coinChange()

```
void coinChange (
    int denomination[NCoins+1],
    int nrcoins[Amount+1],
    int lastcoin[Amount+1] )
```

no. of coins used when the amount is 0 last coin used when the amount is 0

iterator1 is helping us going through every value from 1 to the given amount

iterator2 is used to go through every coin value of the denomination

Definition at line 57 of file main.c.

2.6.2.3 coinSet()

```
void coinSet (
    int denominations[NCoins+1],
    int lastcoin[Amount+1] )
```

print the coins used to make change by subtracting from the current index of lastcoin array the value saved at the current index position

Definition at line 88 of file main.c.

2.6.2.4 greedy()

```
void greedy (
    int denomination[NCoins+1],
    int coins[Amount+1] )
```

Function greedy first puts the denominations in descending order , then goes through the denominations if the current denomination is smaller the amount we need to form we find how many times it fits in the amount by dividing the amount by the denomination and saving it in the nocoins variable , then we subtract the amount that we get by multiplying the nocoins with the denomination .

Definition at line 105 of file main.c.

2.6.2.5 main()

```
int main ( )
```

value of the coins , we start from index 1 so first value is 0

min. no. of coins required

last coin we used to make change for index amount

compute minimum number of coins required

print the coins used to make change.

Definition at line 16 of file main.c.

2.7 D:/Facultate/Assignment/Change making/main.h File Reference

Variables

- [INF](#)
- [NCoins](#)
- [Amount](#)

2.7.1 Variable Documentation

2.7.1.1 Amount

Amount

2.7.1.2 INF

INF

2.7.1.3 NCoins

NCoins

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