

Arrays assignment

1)write the following function

```
void find_date(int day_year,int year,int* day,int* month);
```

day_year variable is an number (1->366) specifying a particular day within the year variable day and month point to variables in which the function store the month[1-12] and day[1-31]

Note :

- function cannot return directly more than one variable so when it's needed to return more than one variable like the month and day in that function, you can pass to the function, as arguments, the addresses of variables to store the return/output data instead of returning them directly and therefore access theses addresses in the main function.
- global variables can also be used because they are visible through all functions and hence any function can access and store data inside them

Bonus:

if the function can return day and month and therefore no need for passing them as arguments and also without using global variables.

```
enter the day number and the year :60 2020
date : 29/2/2020
Process returned 0 (0x0)   execution time : 11.752 s
Press any key to continue.
```

```
enter the day number and the year :60 2019
date : 1/3/2019
Process returned 0 (0x0)   execution time : 4.782 s
Press any key to continue.
```

```
enter the day number and the year :300 2019
date : 27/10/2019
Process returned 0 (0x0)   execution time : 5.873 s
Press any key to continue.
```

2)write the following function

```
void unique(int arr[],int size,int new_arr[],int* new_size)
```

arr is a pointer to an array whose items number is size

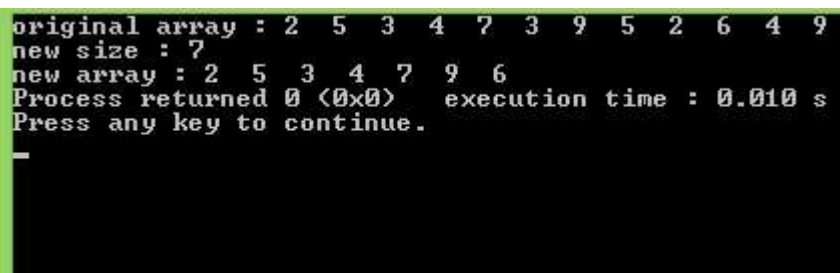
returns the new_arr with unique items whose items numbers is new_size

notes

- the same idea of the previous question ->passing the new array and its size as a pointer to the function to save in them the items of unique array and its size
- be aware that the array name is a pointer to the address of the first element and therefore **arr** is equal to **&arr[0]**.
arr[i]=*(arr+i) array traversing using pointers
- void unique(int* arr,int size,int* new_arr,int* new_size) is equivalent to previous declaration

ex: arr=[2,5,3,4,7,3,9,5,2,6,4,9]

new_arr=[2,5,3,4,7,9,6] non repeated numbers (unique numbers only)



```
original array : 2 5 3 4 7 3 9 5 2 6 4 9
new size : 7
new array : 2 5 3 4 7 9 6
Process returned 0 (0x0)   execution time : 0.010 s
Press any key to continue.
```

Notes:

- 1- submitted report with unknown user's name will be refused
- 2- copied reports will be assign **zero marks**
- 3- reports **must** be in **PDF format** otherwise reports will be ignored.
- 4-reports must have screen shots for all code and the results
- 4- reports sended to messages will be ignored
- 5- the **deadline** for all section will be next Thursday **9/4/2020** at 11:59 pm