

**LAPORAN TUGAS**  
**ALGORITMA DAN STRUKTUR DATA**  
**PEKAN 2**



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**C**

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## TUGAS

### 1. Prime or Not

```
def check_prime(number):  
    """  
    Author : L200220277 (Mhd. Farhan Lubis)  
    Date : 28/02/2024  
  
    Check if the given number is prime or not.  
    Parameters:  
        number (int): The number to be checked for  
prime.  
    Returns:  
        str: "Prime" if the number is prime, "Not Prime"  
otherwise.  
    """  
    # Mengecek apakah number pada argumen lebih besar  
dari 1.  
    if number > 1:  
        # Melakukan iterasi dari 2 sampai number pada  
argumen  
        for i in range(2, number):  
            # Jika number pada argumen habis dibagi oleh  
i maka number pada argumen bukan bilangan prima  
            if number % i == 0:  
                return "Not Prime"  
            # Jika kondisi sebelumnya tidak terpenuhi maka  
number argumen tersebut adalah bilangan prima  
            return "Prime"  
        # Jika lebih kecil dari 1, number tersebut bukan  
bilangan prima.  
        return "Not Prime"  
  
print(check_prime(int(input("Enter a number: "))))  
print("\nProgram Completed!\n\n--- By L200220277 ---")
```

```
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n01_prime.py
Enter a number: -1
Not Prime
Program Completed!

--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n01_prime.py
Enter a number: 0
Not Prime
Program Completed!

--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n01_prime.py
Enter a number: 2
Prime
Program Completed!

--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n01_prime.py
Enter a number: 7
Prime
Program Completed!
```

## 2. Remove Repetitive Items

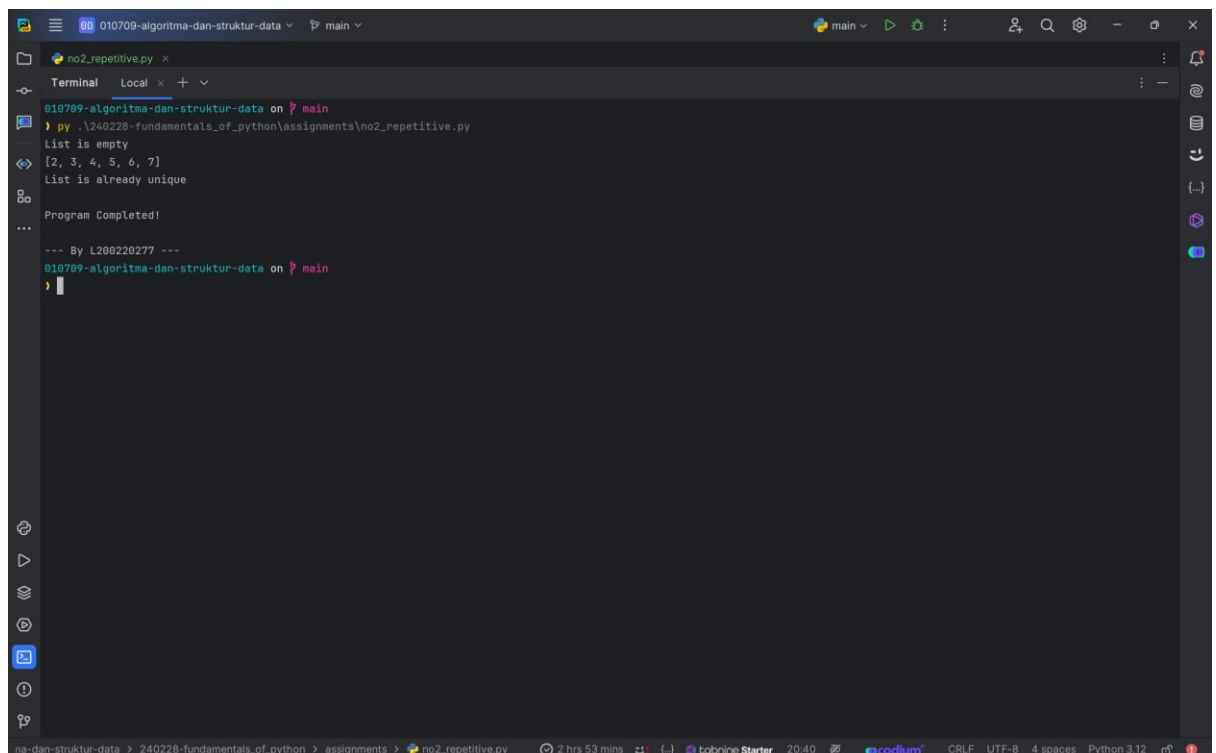
```
def remove_repetitive(number_list):  
    """  
    Author : L200220277 (Mhd. Farhan Lubis)  
    Date : 28/02/2024  
  
    Remove repetitive items from the list.  
    Parameters:  
        number_list (list): The list to remove  
        repetitive items from.  
    Returns:  
        list: The list with repetitive items removed.  
    """  
    # Menginialisasi variabel unique_list yang bernilai  
    list kosong  
    unique_list = []  
    # Mengecek apakah argumen number_list berupa list  
    kosong atau tidak  
    if len(number_list) != 0:  
        # Melakukan iterasi pada argumen number_list  
        for item in number_list:  
            # Jika item pada argumen number_list tidak  
            ada pada variabel unique_list  
            # Maka item tersebut ditambahkan ke variabel  
            unique_list  
            if item not in unique_list:
```

```

        unique_list.append(item)
        # Jika panjang dari variabel unique_list sama
        # dengan panjang dari argumen number_list`
        # Maka mengembalikan pesan bahwa list tersebut
        # sudah unik
        if len(unique_list) == len(number_list):
            return "List is already unique"
        # Jika kondisi di atas tidak terpenuhi
        # maka mengembalikan unique_list yang sudah
        # diproses
        return unique_list
    # Jika panjang unique_list yang diinisialisasi
    # berupa list kosong
    # Maka mengembalikan pesan bahwa list tersebut
    # kosong
    return "List is empty"

print(remove_repetitive([]))
print(remove_repetitive([2,2,3,4,4,4,5,5,6,7]))
print(remove_repetitive([2,3,4,5,6,7]))
print("\nProgram Completed!\n\n--- By L200220277 ---")

```



The screenshot shows a VS Code editor window with a file named `no2_repetitive.py` open. The terminal output shows the following:

```

010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n02_repetitive.py
List is empty
[2, 3, 4, 5, 6, 7]
List is already unique
Program Completed!
...
--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
>

```

The status bar at the bottom indicates the file is located at `na-dan-struktur-data > 240228-fundamentals_of_python > assignments > no2_repetitive.py`, with a file size of 2 hrs 53 mins, using the `codium` theme, `CRLF` line endings, `UTF-8` encoding, 4 spaces for indentation, and Python 3.12.

### 3. Sum All Number

```

def sum_all_numbers(number):
    """
    Author : L200220277 (Mhd. Farhan Lubis)

```

```

Date : 28/02/2024

Calculate the sum of all numbers from 1 to the given
number.
Args:
    number (int): The input number for calculating
the sum.
Returns:
    int: The sum of all numbers from 1 to the given
number.
"""
# Mengecek apakah number sama dengan 1
# maka mengembalikan 1
if number == 1:
    return 1
# Jika kondisi diatas tidak terpenuhi maka akan
dicek apakah number kurang dari sama dengan 0
# Jika kondisi ini terpenuhi maka akan mengembalikan
pesan bahwa number harus lebih dari 0
if number <= 0:
    return "number must be greater than 0"
# Jika kondisi diatas tidak terpenuhi
# maka akan mengembalikan jumlah dari number
ditambah fungsi rekursif yang memiliki parameter
dikurangi 1
return number + sum_all_numbers(number - 1)

print(sum_all_numbers(int(input("Enter a number: "))))
print("\nProgram Completed!\n\n--- By L200220277 ---")

```

```

010709-algoritma-dan-struktur-data on main
no3_sum.py x
Terminal Local x + v
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n03_sum.py
Enter a number: -1
number must be greater than 0
Program Completed!
--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n03_sum.py
Enter a number: 0
number must be greater than 0
Program Completed!
--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n03_sum.py
Enter a number: 1
1
Program Completed!
--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n03_sum.py
Enter a number: 4
10
Program Completed!
--- By L200220277 ---
010709-algoritma-dan-struktur-data on main
> py .\240228-fundamentals_of_python\assignments\n03_sum.py
Enter a number: 5

```

igortima-dan-struktur-data > 240228-fundamentals\_of\_python > assignments > no3\_sum.py 3 hrs 13 mins tobrine Starter 10:64 codium CRLF UTF-8 4 spaces Python 3.12