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1. PROGRAM MENAMPILKAN NAMA MAHASISWA , DAN RATA" NILAI

The image shows a Visual Studio Code editor window with a Python file named `1.py`. The code is a program that takes student names and scores as input, calculates the average score, and displays the results in a table.

```
python Arif > 1.py > ...
9 #input nama dan nilai
10 print("="*40)
11 print("="*39)
12 batas = 5
13 for n in range(batas):
14     list_nama.append(input("Masukkan nama : "))
15     list_nilai.append(int(input("Masukkan nilai : ")))
16     print()
17     jml = n + 1
18     total += list_nilai[n]
19     rata = total / jml
20
21 #output
22 print("-----")
23 print("No      Nama      Nilai  Keterangan")
24 print("-----")
25 for i in range(batas):
26     list_no += 1
27     print(list_no, "\t", list_nama[i], "\t\t", list_nilai[i], "\t")
28 print("-----")
29 print("Jumlah Mahasiswa = ", jml)
30 print("Rata-rata      = ", rata)
31 print("Nilai tertinggi = ", max(list_nilai))
32 print("Nilai tertinggi = ", min(list_nilai))
```

The terminal output shows the program's execution with the following input and output:

```
Masukkan nama :
Masukkan nilai : 88

Masukkan nama : Lala
Masukkan nilai : 55

Masukkan nama : arin
Masukkan nilai : 77

-----
No      Nama      Nilai  Keterangan
-----
1       Arif      98
2       Ana       100
3              88
4       Lala     55
5       arin     77
-----

Jumlah Mahasiswa = 5
Rata-rata      = 83.6
Nilai tertinggi = 100
Nilai tertinggi = 77
Pictures/python Arif/1.py"
```

No	Nama	Nilai	Keterangan
1	Arif	98	
2	Ana	100	
3		88	
4	Lala	55	
5	arin	77	

Summary statistics:

- Jumlah Mahasiswa = 5
- Rata-rata = 83.6
- Nilai tertinggi = 100
- Nilai tertinggi = 77

2. PROGRAM MENAMPILKAN LULUS TIDAK LULUSNYA MAHASISWA

The image displays two screenshots of a Visual Studio Code editor window, showing a Python program for calculating student grades and determining pass/fail status.

Top Screenshot: The code is in a file named `2.PY`. It defines lists for names (`list_nama`) and grades (`list_nilai`), initializes a total score (`total`) and a counter (`jml`), and uses a loop to input data for up to 5 students. It calculates the average grade (`rata`) for each student and appends 'lulus' (pass) or 'tidak lulus' (fail) to the `grade` list. The output is formatted as a table.

```
1 #list
2 import math
3 list_no = 0
4 list_nama = []
5 list_nilai = []
6 total = 0
7 grade = []
8
9 #input nama dan nilai
10 print("="*40)
11 print("="*39)
12 batas = 5
13 for n in range(batas):
14     list_nama.append(input("Masukkan nama : "))
15     list_nilai.append(int(input("Masukkan nilai : ")))
16     print()
17     jml = n + 1
18     total += list_nilai[n]
19     rata = total / jml
20     if list_nilai[n] >= 60:
21         grade.append('lulus')
22     else:
23         grade.append('tidak lulus')
24
25 #output
26 print("-----")
27 print("No      Nama      Nilai Keterangan")
28 print("-----")
29 for i in range(batas):
30     list_no += 1
31     print(list_no, "\t", list_nama[i], "\t\t", list_nilai[i], "\t", grade[i])
32 print("-----")
33 print("Jumlah Mahasiswa = ", jml)
```

Bottom Screenshot: The code is identical to the top screenshot, but with additional lines at the end (lines 33-36) that calculate and print the total number of students (`jml`), the average grade (`rata`), the highest grade (`max(list_nilai)`), and the lowest grade (`min(list_nilai)`).

```
33 print("Jumlah Mahasiswa = ", jml)
34 print("Rata-rata = ", rata)
35 print("Nilai tertinggi = ", max(list_nilai))
36 print("Nilai terendah = ", min(list_nilai))
```

The screenshot shows a Visual Studio Code window with a Python file named 2.PY. The code prompts the user to enter names and scores for five students. The terminal output shows the input for five students: Ana (99), lala (88), intan (89), fajar (87), and a summary table.

```
python Arif > 2.PY > ...
10 print('='*40)
11 print('='*39)
12 batas = 5
13 for n in range(batas):
14     list_nama.append(input("Masukkan nama : "))
15     list_nilai.append(int(input("Masukkan nilai : ")))
16     print()
```

Terminal Output:

```
Masukkan nama : Ana
Masukkan nilai : 99

Masukkan nama : lala
Masukkan nilai : 88

Masukkan nama : intan
Masukkan nilai : 89

Masukkan nama : fajar
Masukkan nilai : 87
```

No	Nama	Nilai	Keterangan
1	Arif	100	lulus
2	Ana	99	lulus
3	lala	88	lulus
4	intan	89	lulus
5	fajar	87	lulus

Summary:

```
Jumlah Mahasiswa = 5
Rata-rata = 92.6
Nilai tertinggi = 100
Nilai tertinggi = 87
```

4. PROGRAM MENAMPILKAN SEKELOMPOK BILANGAN BULAT

The screenshot shows a Visual Studio Code window with a Python file named 4.py. The code prompts the user to enter a number of data points, then collects a list of numbers. It then prints the list and identifies the even numbers within it.

```
python Arif > 4.py > ...
1 print("PROGRAM MENCARI BILANGAN GENAP")
2 print("-----\n")
3
4 list = []
5 n = int(input("Banyak Data : "))
6
7 print()
8 for i in range(n):
9     bil = int(input("Masukkan bilangan ke-{} : ".format(i + 1)))
10    list.append(bil)
11
12 print()
13 print("List bilangan :", list)
14 print("\nBilangan didalam list yang merupakan angka genap adalah :")
15 for x in list:
16     if x % 2 == 0:
17         print(x, end=' ')
18
```

Terminal Output:

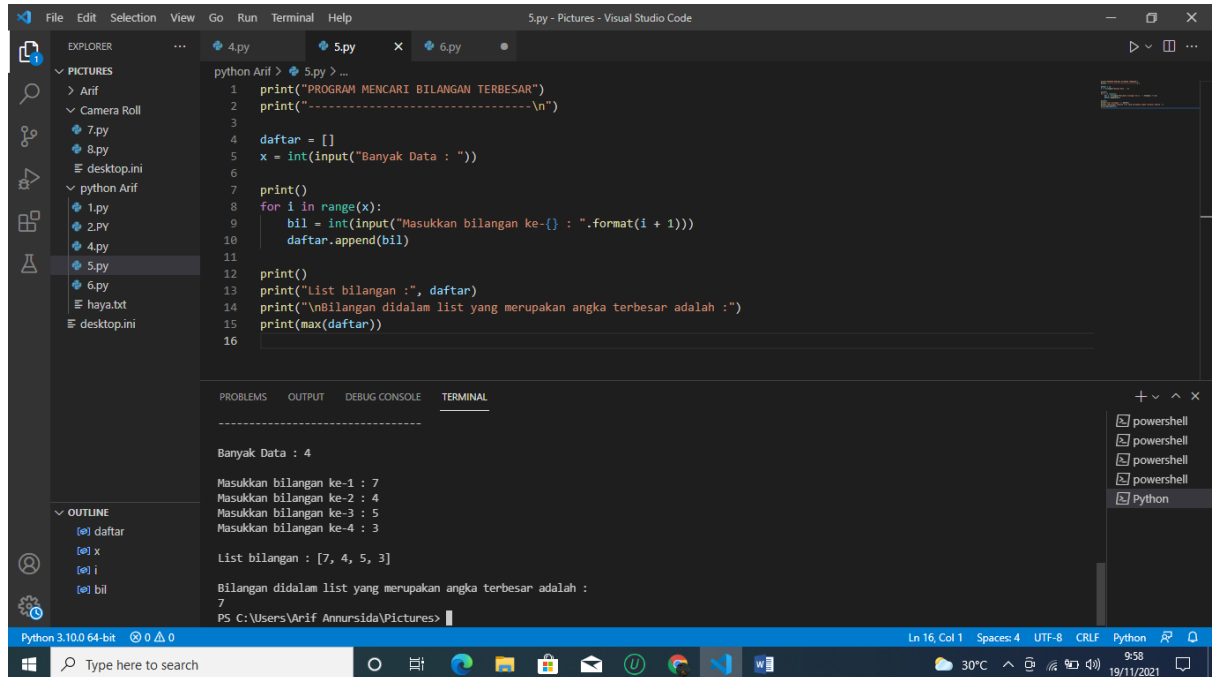
```
Banyak Data : 6

Masukkan bilangan ke-1 : 2
Masukkan bilangan ke-2 : 4
Masukkan bilangan ke-3 : 6
Masukkan bilangan ke-4 : 8
Masukkan bilangan ke-5 : 10
Masukkan bilangan ke-6 : 12

List bilangan : [2, 4, 6, 8, 10, 12]

Bilangan didalam list yang merupakan angka genap adalah :
2 4 6 8 10 12
PS C:\Users\Arif Annursida\Pictures>
```

5. PROGRAM MENAMPILKAN MENCARI BILANGAN TERBESAR



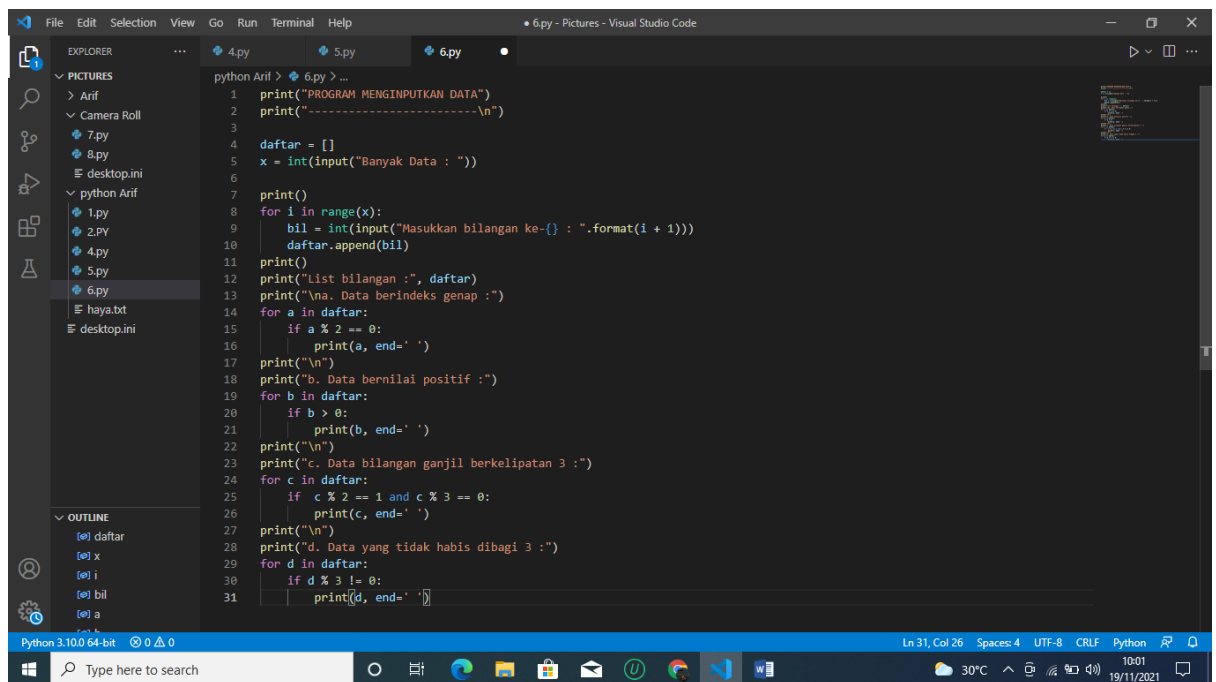
The screenshot shows a Visual Studio Code editor with a Python file named 5.py. The code prompts the user to enter the number of data points, then enters a loop to collect numbers into a list. It then prints the list and the maximum value.

```
python Arif > 5.py > ...
1 print("PROGRAM MENCARI BILANGAN TERBESAR")
2 print("-----\n")
3
4 daftar = []
5 x = int(input("Banyak Data : "))
6
7 print()
8 for i in range(x):
9     bil = int(input("Masukkan bilangan ke-{} : ".format(i + 1)))
10    daftar.append(bil)
11
12 print()
13 print("List bilangan :", daftar)
14 print("\nBilangan didalam list yang merupakan angka terbesar adalah :")
15 print(max(daftar))
16
```

The terminal output shows the execution results:

```
-----
Banyak Data : 4
Masukkan bilangan ke-1 : 7
Masukkan bilangan ke-2 : 4
Masukkan bilangan ke-3 : 5
Masukkan bilangan ke-4 : 3
List bilangan : [7, 4, 5, 3]
Bilangan didalam list yang merupakan angka terbesar adalah :
7
PS C:\Users\Arif Annursida\Pictures>
```

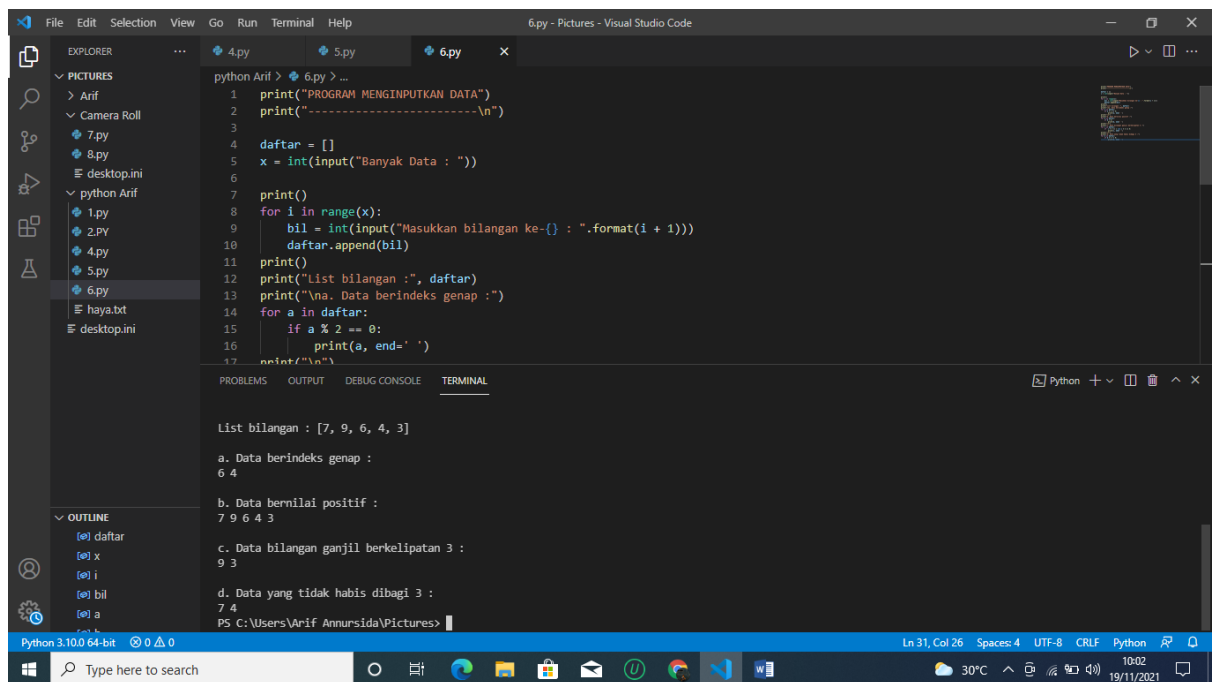
6. PROGRAM MENAMPILKAN SEJUMLAH DATA



The screenshot shows a Visual Studio Code editor with a Python file named 6.py. The code prompts the user to enter the number of data points, then enters a loop to collect numbers into a list. It then prints the list and calculates the sum of even and odd numbers.

```
python Arif > 6.py > ...
1 print("PROGRAM MENGINPUTKAN DATA")
2 print("-----\n")
3
4 daftar = []
5 x = int(input("Banyak Data : "))
6
7 print()
8 for i in range(x):
9     bil = int(input("Masukkan bilangan ke-{} : ".format(i + 1)))
10    daftar.append(bil)
11
12 print()
13 print("List bilangan :", daftar)
14 print("\na. Data berindeks genap :")
15 for a in daftar:
16     if a % 2 == 0:
17         print(a, end=' ')
18 print("\n")
19 print("b. Data bernilai positif :")
20 for b in daftar:
21     if b > 0:
22         print(b, end=' ')
23 print("\n")
24 print("c. Data bilangan ganjil berkelipatan 3 :")
25 for c in daftar:
26     if c % 2 == 1 and c % 3 == 0:
27         print(c, end=' ')
28 print("\n")
29 print("d. Data yang tidak habis dibagi 3 :")
30 for d in daftar:
31     if d % 3 != 0:
32         print(d, end=' ')

```



```
python Arif > 6.py > ...
1 print("PROGRAM MENGINPUTKAN DATA")
2 print("-----\n")
3
4 daftar = []
5 x = int(input("Banyak Data : "))
6
7 print()
8 for i in range(x):
9     bil = int(input("Masukkan bilangan ke-{} : ".format(i + 1)))
10    daftar.append(bil)
11 print()
12 print("List bilangan :", daftar)
13 print("\na. Data berindeks genap :")
14 for a in daftar:
15     if a % 2 == 0:
16         print(a, end=' ')
17 print("\n")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

List bilangan : [7, 9, 6, 4, 3]

a. Data berindeks genap :
6 4

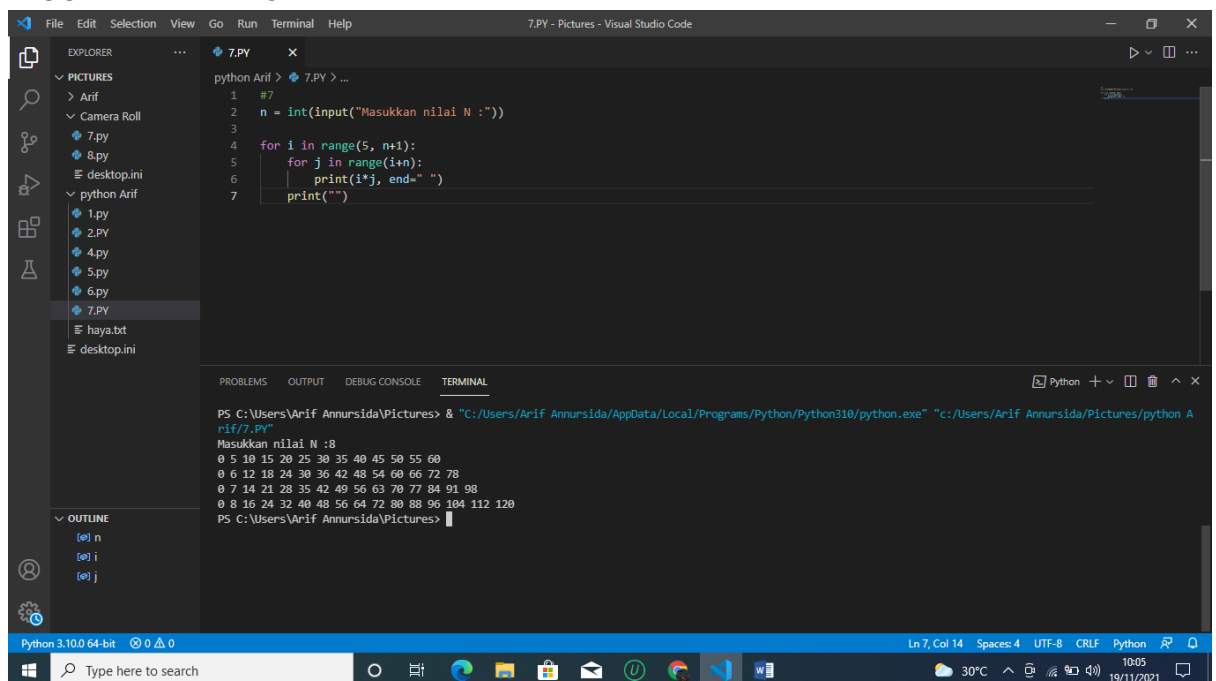
b. Data bernilai positif :
7 9 6 4 3

c. Data bilangan ganjil berkelipatan 3 :
9 3

d. Data yang tidak habis dibagi 3 :
7 4

PS C:\Users\Arif Annursida\Pictures>

7. PROGRAM KLIPATAN 5



```
python Arif > 7.PY > ...
1 #7
2 n = int(input("Masukkan nilai N :"))
3
4 for i in range(5, n+1):
5     for j in range(i,n):
6         print(i*j, end=" ")
7     print("")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\Arif Annursida\Pictures> & "C:/Users/Arif Annursida/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/Arif Annursida/Pictures/python A r if 7 .PY"

Masukkan nilai N : 8

0 5 10 15 20 25 30 35 40 45 50 55 60

0 6 12 18 24 30 36 42 48 54 60 66 72 78

0 7 14 21 28 35 42 49 56 63 70 77 84 91 98

0 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120

PS C:\Users\Arif Annursida\Pictures>