

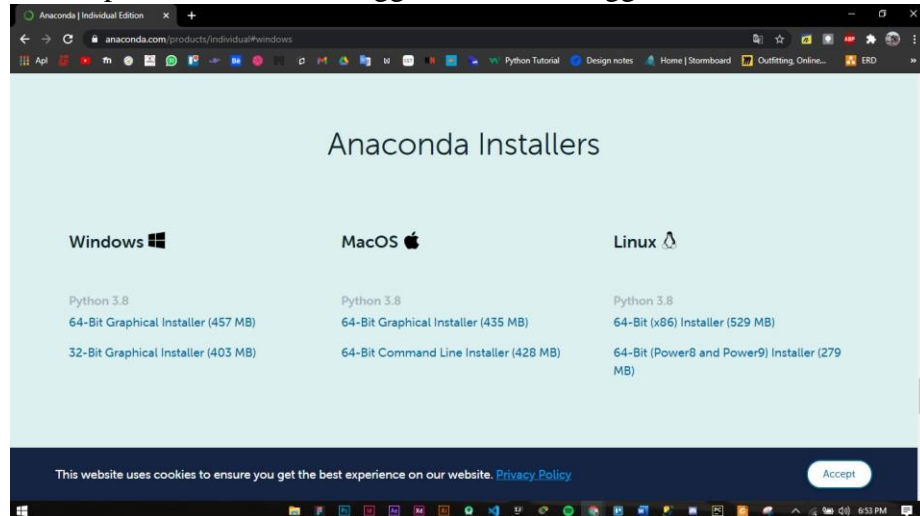
MODUL 1

VARIABEL, TIPE DATA DAN OPERATOR

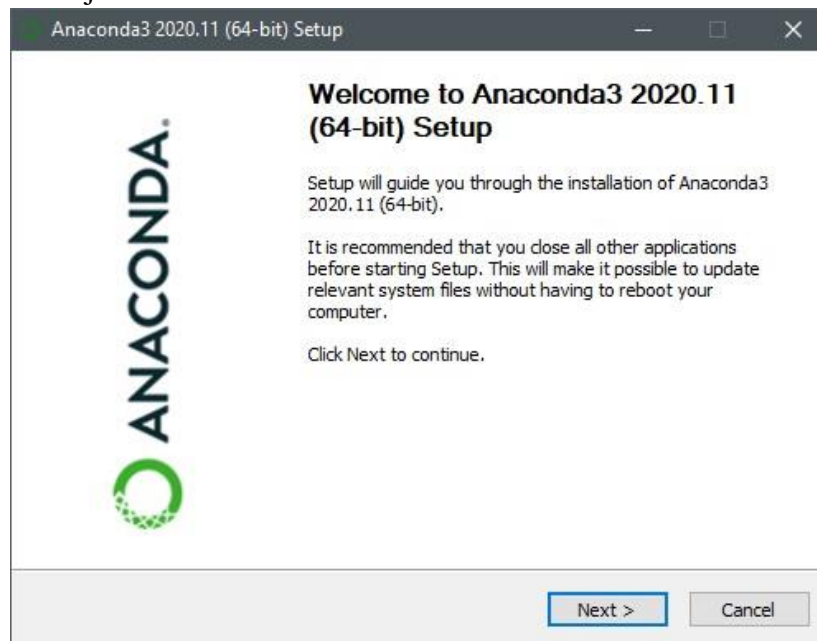
1. Instalasi Anaconda

a. Buka website Anaconda

<https://www.anaconda.com/products/individual#windows> . Pilih sesuai dengan sistem operasi PC kamu. Tunggu download hingga selesai.



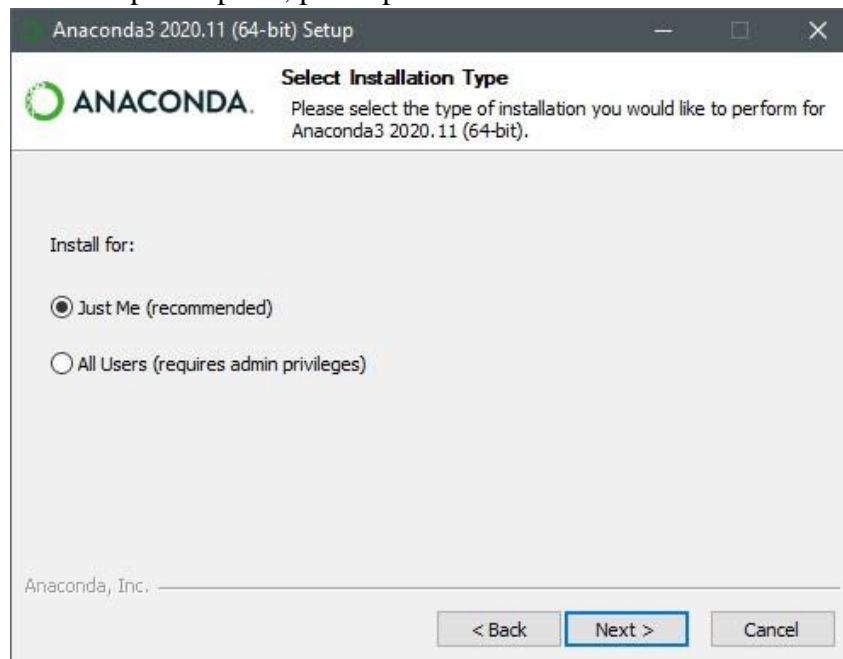
b. Buka installer Anaconda yang sudah di download, dan klik Next untuk melanjutkan.



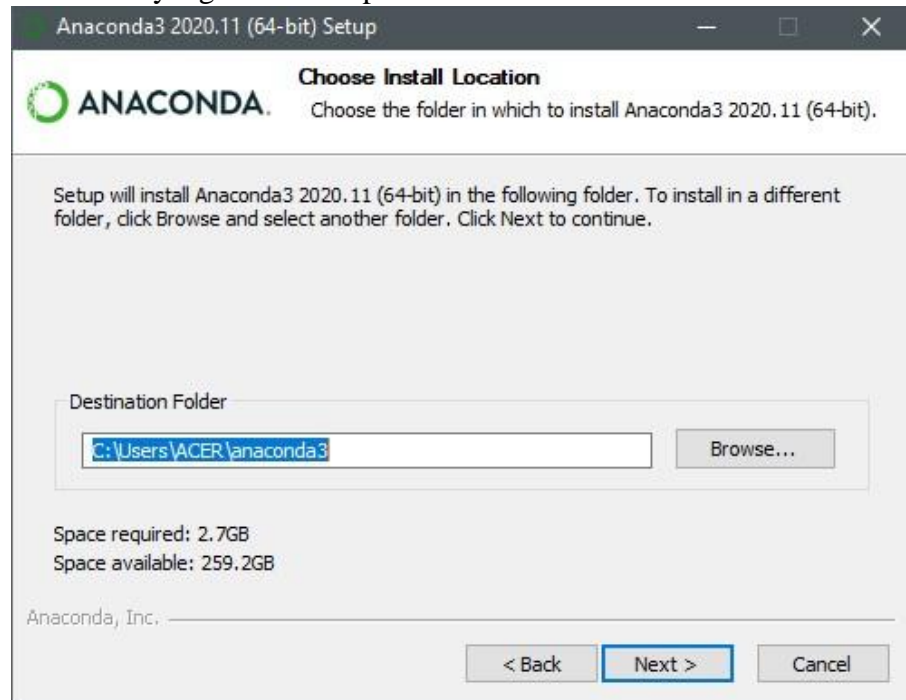
c. Kemudian akan muncul seperti gambar di bawah, lalu klik I Agree



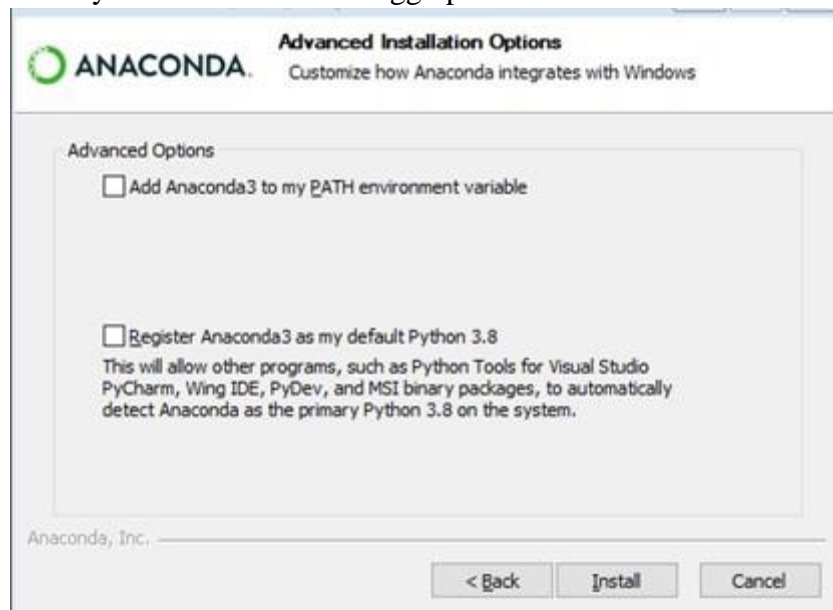
- d. Lalu terdapat 2 option, pilih optio Just Me dan klik Next



- e. Pilih folder yang akan disimpan



- f. Kemudian akan menampilkan seperti pada gambar. Lakukan checklist untuk keduanya dan klik Install. Tunggu proses selesai.



Menggunakan IDLE (Python Shell)

```
Command Prompt - python
Microsoft Windows [Version 10.0.18362.1256]
(c) 2019 Microsoft Corporation. All rights reserved.

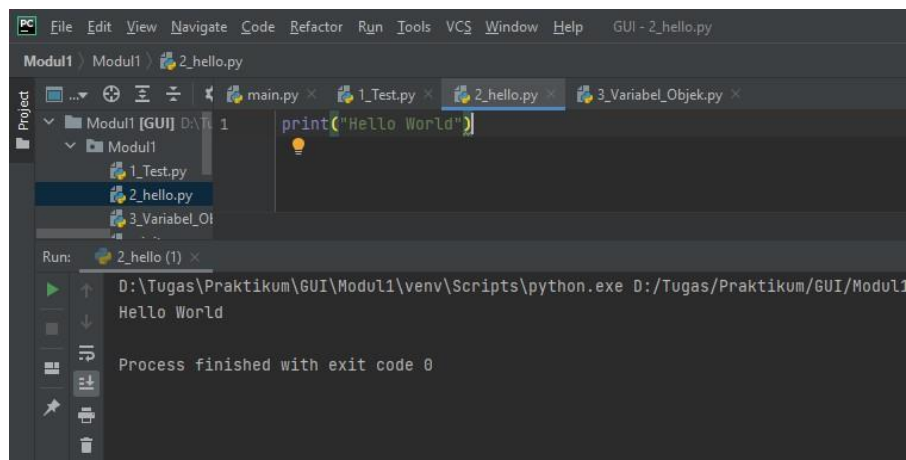
C:\Users\ACER>python
Python 3.8.5 (default, Sep  3 2020, 21:29:08) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32

Warning:
This Python interpreter is in a conda environment, but the environment has
not been activated. Libraries may fail to load. To activate this environment
please see https://conda.io/activation

Type "help", "copyright", "credits" or "license" for more information.
>>> nama = 'Yolanda Al Hidayah Pasaribu'
>>> nama
'Yolanda Al Hidayah Pasaribu'
>>> print(nama)
Yolanda Al Hidayah Pasaribu
>>> umur = 20
>>> print(nama,"berumur", umur, "tahun")
Yolanda Al Hidayah Pasaribu berumur 20 tahun
```

2. Membuat Dan Eksekusi Kode Program Pada Python

A. Membuat kode program (Text Editor)



The screenshot shows an IDE window titled 'GUI - 2_hello.py'. The editor displays a Python script with the following code:

```
print("Hello World")
```

The 'Run' panel at the bottom shows the execution output:

```
Run: 2_hello (1) x
D:\Tugas\Praktikum\GUI\Modul1\venv\Scripts\python.exe D:/Tugas/Praktikum/GUI/Modul1
Hello World
Process finished with exit code 0
```

3. VARIABEL DAN OBJEK

Urutan	Screenshot
a.	<pre> >>> x = 9 >>> type(x) <class 'int'> >>> x = True >>> type(x) <class 'bool'> >>> x = 'ini contoh' >>> type(x) <class 'str'> </pre>
b.	<pre> >>> x = 9 >>> id(x) 140736231778336 >>> y = 9 >>> id(y) 140736231778336 </pre>
c.	<pre> >>> x = 9 >>> id(x) 140736231778336 </pre>
d.	<pre> >>> x = 9 >>> id(x) 140736231778336 >>> y = 9 >>> id(y) 140736231778336 >>> del y >>> y Traceback (most recent call last): File "<stdin>", line 1, in <module> NameError: name 'y' is not defined >>> x 9 >>> id(x) 140736231778336 </pre>
e.	<pre> >>> x = True </pre>

4. PYTHON BERSIFAT *CASE-SENSITIVE*

Penulisan kode program pada python bersifat case sensitive

```
>>> posisi = (300,300)
>>> posisi
(300, 300)
>>> Posisi
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'Posisi' is not defined
```

5. PERINTAH PROGRAM (*STATEMENT*)

No	Screenshoot
1	<pre>>>> a = 1; b = 2; c = 3 >>> print(a); print(b); print(c) 1 2 3</pre>
2	<pre>>>> x = 9 >>> if isinstance(x,int) and \ ... x > 0 and \ ... x % 2 == 1: ... print("%d adalah bilangan bulat ganjil positif" %x) ... 9 adalah bilangan bulat ganjil positif >>></pre>
3	<pre>>>> print("Pemrograman GUI" + "dengan Python dan PyQt") Pemrograman GUI dengan Python dan PyQt >>> data = [... 100, ... 200, ... 300, ...] >>> kamus = { ... 'one' : 'satu', ... 'two' : 'dua', ... 'three' : 'tiga' ... } >>> data [100, 200, 300] >>> kamus {'one': 'satu', 'two': 'dua', 'three': 'tiga'}</pre>

6. TIPE NUMERIK

Keterangan	Screenshoot
Bilangan Bulat	<pre>>>> # bilangan biner >>> a = 0b1001 >>> # bilangan oktal >>> b = 0o23 >>> # bilangan heksadesimal >>> c = 0x2f >>> a 9 >>> b 19 >>> c 47</pre>
	<pre>>>> a = True >>> type(a) <class 'bool'> >>> int(a) 1</pre>
	<pre>>>> a = 15 >>> id(a) 140736231778528 >>> a += 5 >>> a 20 >>> id(a) 140736231778688</pre>
Bilangan Rill	<pre>>>> a = 123.456 >>> a 123.456 >>> a * 2 246.912</pre>

7. TIPE STRING

Keterangan	Screenshoot
-	<pre> >>> s1 = 'pemrograman python' >>> s2 = "pemrograman python 2" >>> s3 = '''pemrograman ... python 3''' >>> s1[0], s1[1], s1[2] ('p', 'e', 'm') >>> data = 'p001\tspidol\t\t9000\np002\tpensil\t\t6000' >>> print(data) p001 spidol 9000 p002 pensil 6000 >>> data = '\tharga\n'+ data >>> print(data) harga p001 spidol 9000 p002 pensil 6000 </pre>
Membandingkan String	<pre> >>> s1 = 'python' >>> s2 = 'PYTHON' >>> s1 == s2 False >>> s1 != s2 True >>> s1 < s2 False </pre>
Mengekstrak Substring	<pre> >>> s = 'Pemrograman pythn dan PyQt' >>> s1 = s[0:11] >>> s1 'Pemrograma' >>> len(s1) 11 >>> s = s[:11] >>> s = s[:8] >>> s = s[8:] >>> s = s[0:11:2] >>> s = s[0:11:1] >>> s = s[0:11:3] </pre>
Membuat String dengan format tertentu	<pre> >>> s = 'balonku ada %d, kempes %d tinggal %f' % (5,1,4.5) >>> s 'balonku ada 5, kempes 1 tinggal 4.500000' </pre>

8. TIPE KOLEKSI

```
>>> list = ['balon', 'budi', 'ada', 5]
```

```
>>> for item in list:
...     print(item)
File "<stdin>", line 2
    print(item)
    ^
IndentationError: expected an indented block
```