

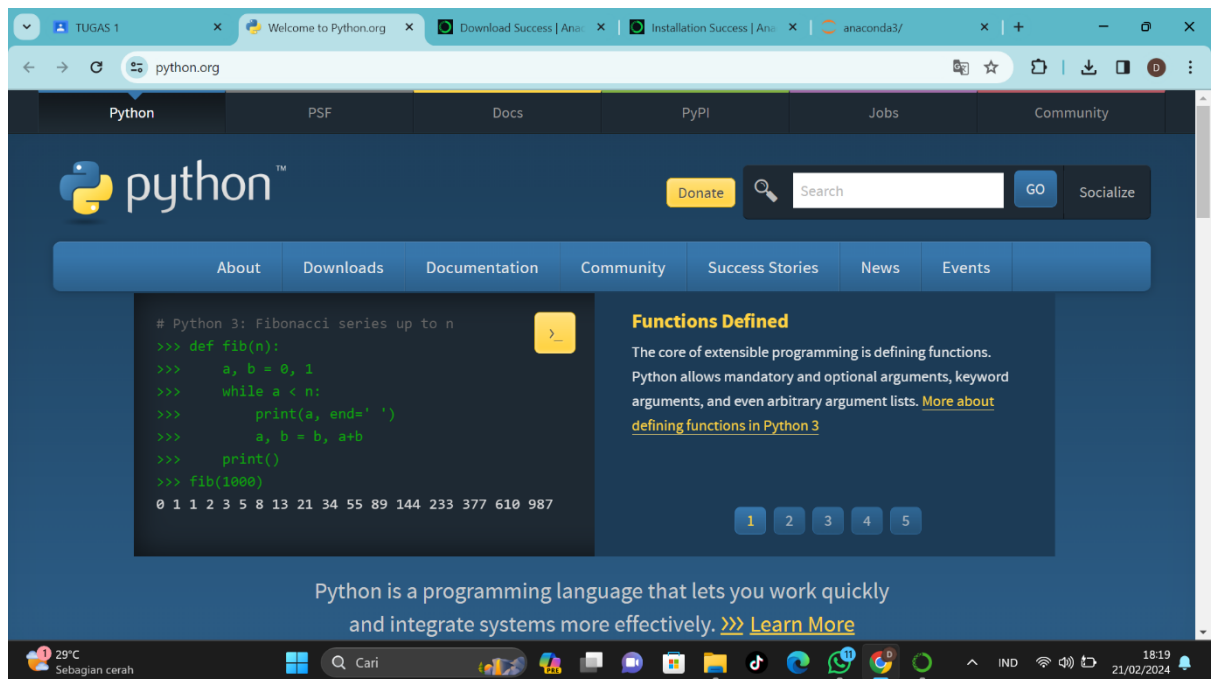
NAMA : Moh. Dicky Purnama  
NPM : 2210631170031  
KELAS : 4D  
PRODI : Informatika  
FAKULTAS : Ilmu Komputer

## TUGAS 1

Ketentuan:

1. Instalasi berbagai tools aplikasi yang diperlukan
2. Menjalankan program python (hello word) dan Biodata masing-masing
3. Buat dalam bentuk word/pdf (tutorial instalansi)
4. Kumpulkan di link pada google classroom

### 1. Instalasi Bahasa Pemrograman Python



- Masuk ke website resmi Python, pilih opsi download dan utamakan download python di versi yang terbaru
- Download Python agar terbaca di Anaconda prompt.

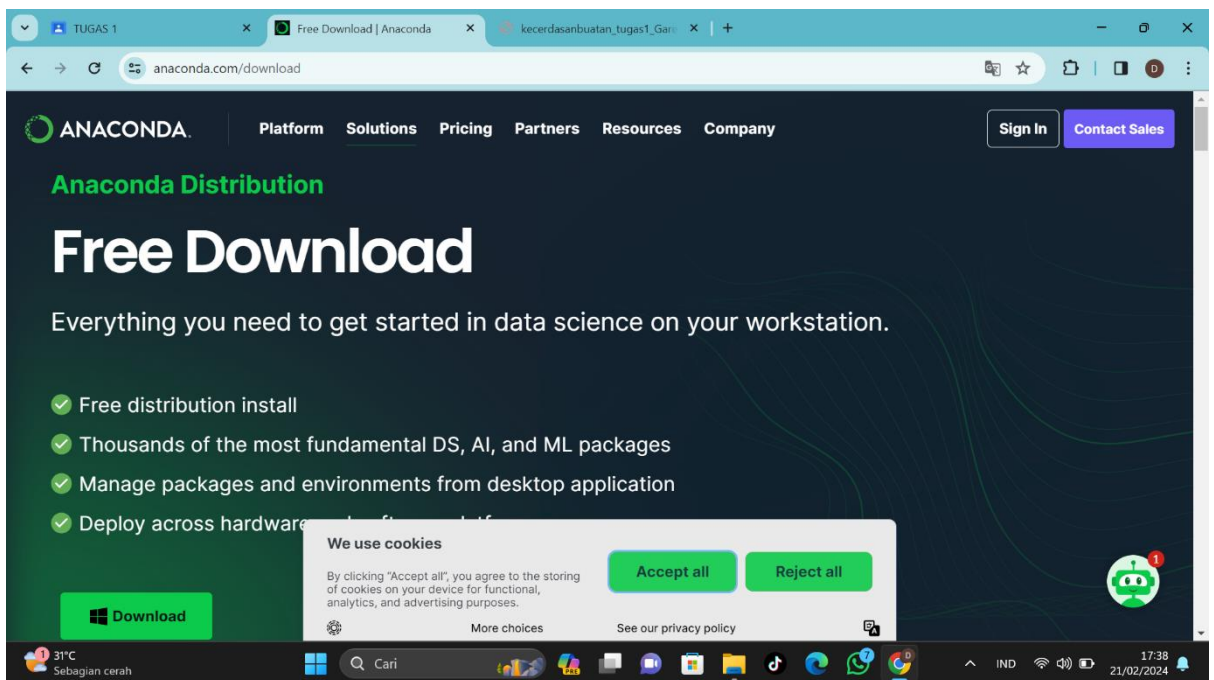
```
Command Prompt - python
Microsoft Windows [Version 10.0.22621.3155]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Moh Dicky Purnama>python --version
Python 3.11.4

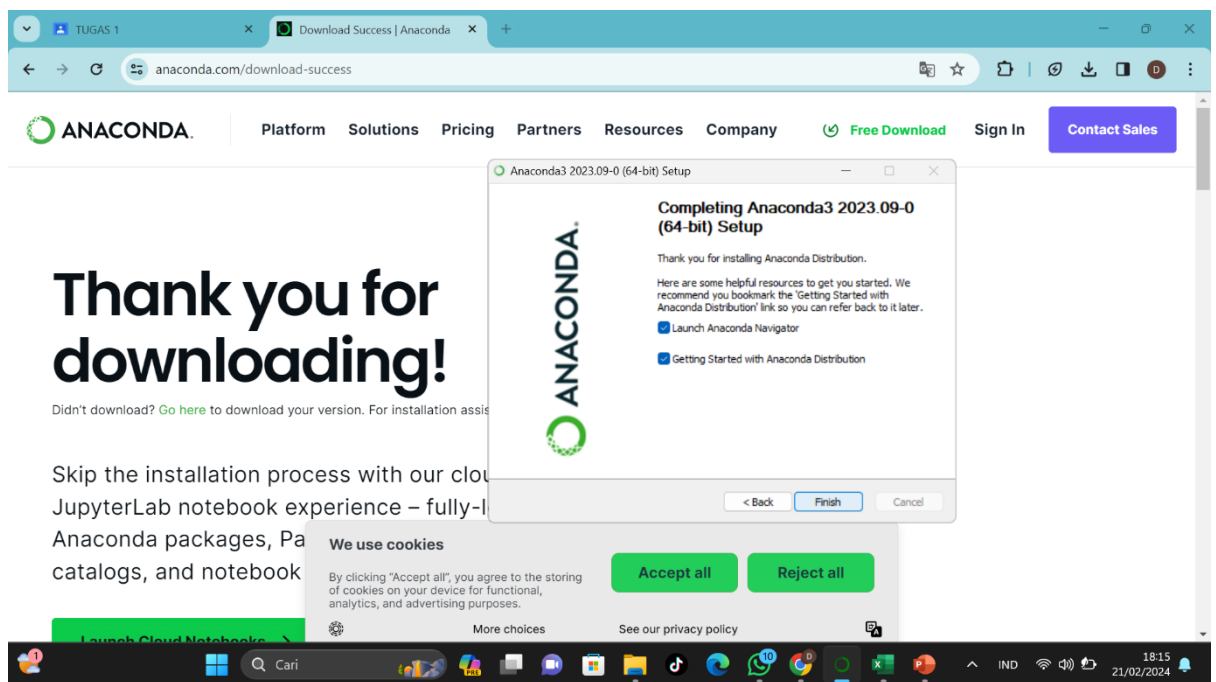
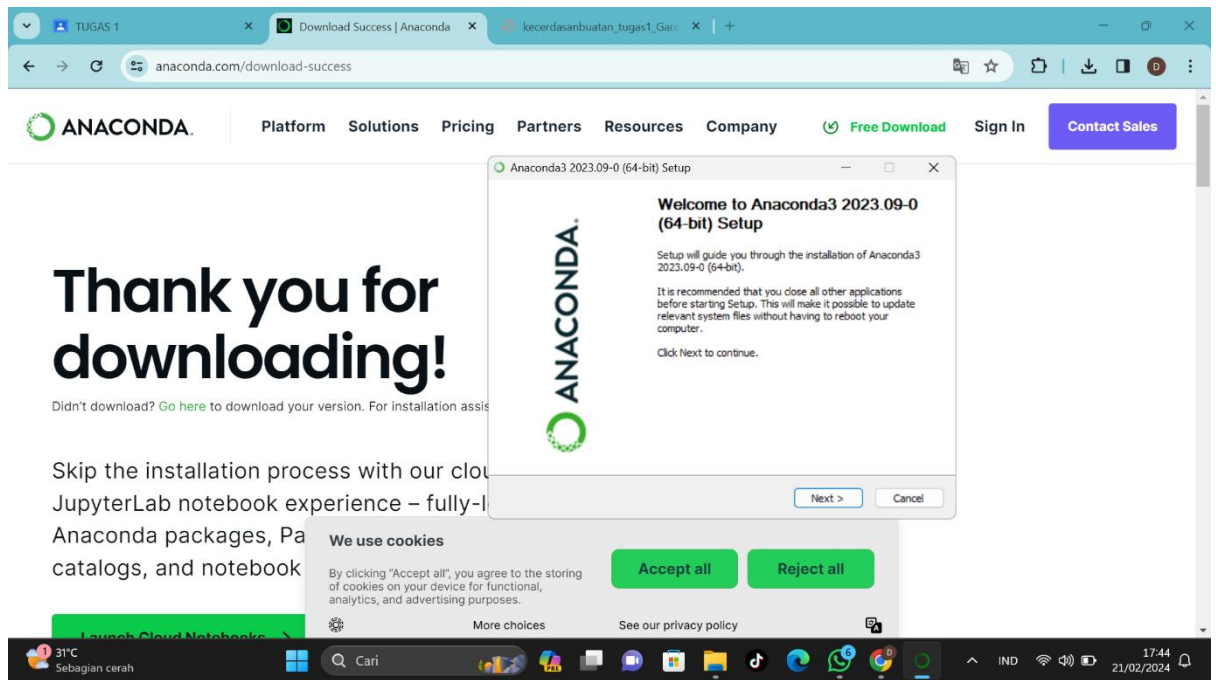
C:\Users\Moh Dicky Purnama>python
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> a = 5000
>>> print(a)
5000
>>> |
```

- Setelah terdownload dan setup, cek melalui cmd dengan mengetik syntax/perintah “python --version”, jika berhasil akan tampil versi yang terdownload. Bisa dilakukan pengujian dengan mengetik syntax “python”.

## 2. Instalasi Anaconda Navigator

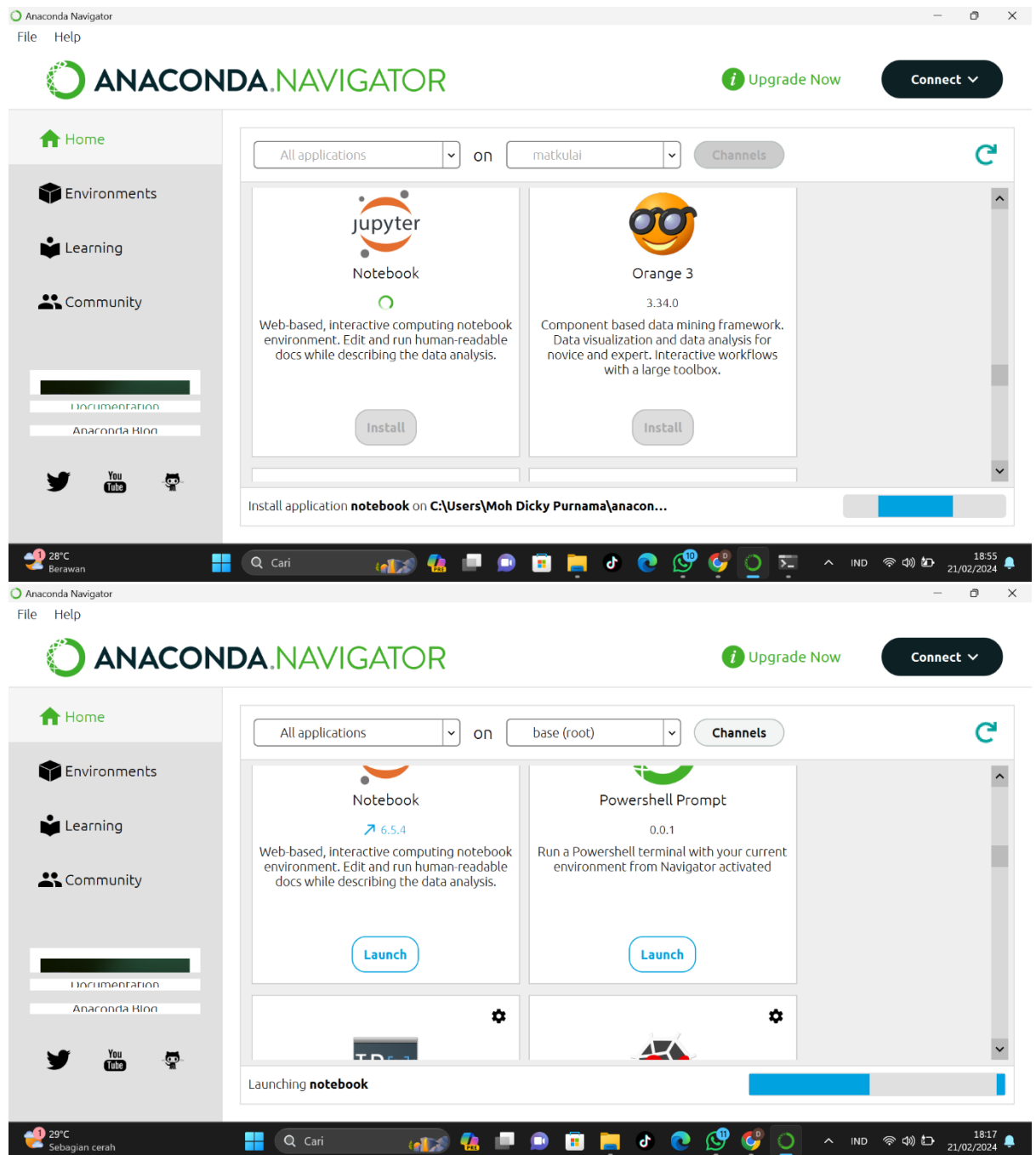


- Masuk ke website resmi Anaconda
- Download Anaconda



- Anaconda sudah terinstall

### 3. Instalasi Jupyter Notebook



- Setelah instal Jupyter Notebook klik “Launch” lalu akan diarahkan ke website

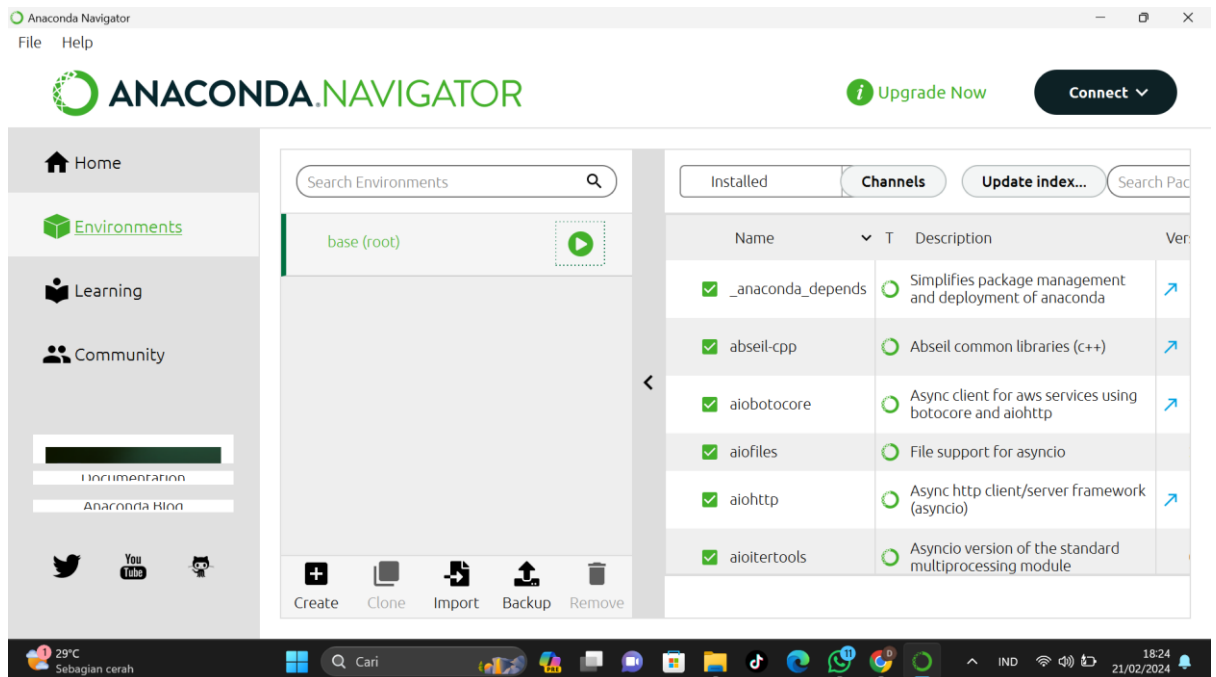
The top screenshot shows the JupyterLab interface at `localhost:8888/tree/anaconda3`. The file browser displays the contents of the `anaconda3` directory, including files like `conda-meta`, `condabin`, `DLLs`, `envs`, `etc`, `include`, `Lib`, `Library`, `libs`, and `Menu`. The bottom screenshot shows a new Jupyter notebook titled 'Untitled' with the last checkpoint at 'semenit yang lalu (unsaved changes)'. The notebook contains a single code cell with the following code:

```
In [1]: print ("Hello Word")
```

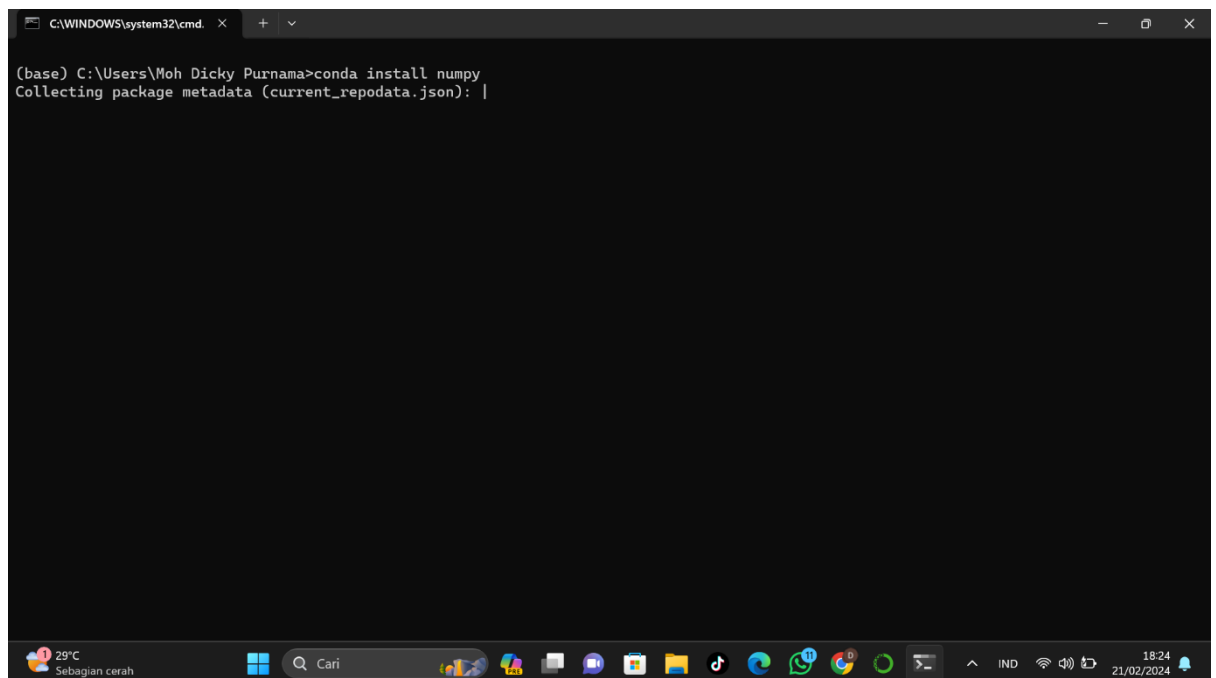
The output of the code cell is 'Hello Word'.

- Kita diarahkan ke localhost jupyter yang didalamnya berisi file atau dokumen yang ada di device kita
- Lalu buat folder dengan mengklik “new” lalu pilih notebook
- Disini saya mencoba dengan membuat kata “Hello word”. Jika berhasil jupyter notebook siap digunakan.

#### 4. Instalasi Library Numpy



- Untuk install setiap library nya, menggunakan terminal environments yang sudah dibuat



- Masukkan syntax “conda install numpy” untuk menginstal library numpy

```
C:\WINDOWS\system32\cmd. x + v
environment location: C:\Users\Moh Dicky Purnama\anaconda3

added / updated specs:
- numpy

The following packages will be downloaded:

package | build | size
-----|-----|-----
ca-certificates-2023.12.12 | haa95532_0 | 127 KB
certifi-2024.2.2 | py311haa95532_0 | 162 KB
openssl-3.0.13 | h2bbff1b_0 | 7.4 MB
-----|-----|-----
Total: | 7.7 MB

The following packages will be UPDATED:

ca-certificates 2023.08.22-haa95532_0 --> 2023.12.12-haa95532_0
certifi 2023.7.22-py311haa95532_0 --> 2024.2.2-py311haa95532_0
openssl 3.0.10-h2bbff1b_2 --> 3.0.13-h2bbff1b_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
Preparing transaction: done
Executing transaction: done

(base) C:\Users\Moh Dicky Purnama>
```

- Jika numpy berhasil di install akan muncul seperti ini

## 5. Instalasi library Pandas

```
C:\WINDOWS\system32\cmd. x + v
Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>conda install pandas
Collecting package metadata (current_repodata.json): done
Solving environment: done

=== WARNING: A newer version of conda exists. ===
current version: 23.7.4
latest version: 24.1.2

Please update conda by running

$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##

environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai

added / updated specs:
- pandas
```

- Masukkan syntax “conda install pandas” untuk menginstal library pandas

```
C:\WINDOWS\system32\cmd. x + v
- pandas

The following packages will be downloaded:

package | build | size
-----|-----|-----
bottleneck-1.3.7 | py311hd7041d2_0 | 134 KB
numexpr-2.8.7 | py311hf1fcbade_0 | 160 KB
pandas-2.1.4 | py311hf62ec03_0 | 13.6 MB
-----|-----|-----
Total: | | 13.9 MB

The following NEW packages will be INSTALLED:

bottleneck pkgs/main/win-64::bottleneck-1.3.7-py311hd7041d2_0
numexpr pkgs/main/win-64::numexpr-2.8.7-py311hf1fcbade_0
pandas pkgs/main/win-64::pandas-2.1.4-py311hf62ec03_0
python-tzdata pkgs/main/noarch::python-tzdata-2023.3-pyhd3eb1b0_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>
```

- Jika pandas berhasil di install akan muncul seperti ini

## 6. Instalasi Library Scipy

```
C:\WINDOWS\system32\cmd. x + v
Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>conda isntall scipy
usage: conda-script.py [-h] [--no-plugins] [-V] COMMAND ...
conda-script.py: error: argument COMMAND: invalid choice: 'isntall' (choose from 'clean', 'compare', 'config', 'create',
'info', 'init', 'install', 'list', 'notices', 'package', 'remove', 'uninstall', 'rename', 'run', 'search', 'update', 'u
pgrade', 'build', 'content-trust', 'convert', 'debug', 'develop', 'doctor', 'index', 'inspect', 'metapackage', 'render',
'skeleton', 'env', 'verify', 'server', 'pack', 'repo', 'token')

(matkulai) C:\Users\Moh Dicky Purnama>conda install scipy
Collecting package metadata (current_repodata.json): done
Solving environment: done

=== WARNING: A newer version of conda exists. <==
current version: 23.7.4
latest version: 24.1.2

Please update conda by running

$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##
```

- Masukkan syntax “conda install scipy” untuk menginstal library scipy



```
C:\WINDOWS\system32\cmd. X + v
environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai
added / updated specs:
- scipy

The following packages will be downloaded:

package | build | size
-----|-----|-----
scipy-1.11.4 | py311hclccb85_0 | 20.9 MB
Total: 20.9 MB

The following NEW packages will be INSTALLED:

icc_rt      pkgs/main/win-64::icc_rt-2022.1.0-h6049295_2
scipy       pkgs/main/win-64::scipy-1.11.4-py311hclccb85_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>
```

- Jika scipy berhasil di install akan muncul seperti ini

## 7. Instalasi Library Matplotlib

```
C:\WINDOWS\system32\cmd. X + v
Downloading and Extracting Packages
Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>conda install matplotlib
Collecting package metadata (current_repodata.json): done
Solving environment: done

==> WARNING: A newer version of conda exists. <==
current version: 23.7.4
latest version: 24.1.2

Please update conda by running

$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##

environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai

added / updated specs:
- matplotlib
```

- Masukkan syntax “conda install matplotlib” untuk menginstal library matplotlib

```
C:\WINDOWS\system32\cmd. x + v

munkres          pkgs/main/noarch::munkres-1.1.4-py_0
openjpeg         pkgs/main/win-64::openjpeg-2.4.0-h4fc8c34_0
pillow           pkgs/main/win-64::pillow-10.2.0-py311h2bbff1b_0
ply              pkgs/main/win-64::ply-3.11-py311haa95532_0
pyparsing        pkgs/main/win-64::pyparsing-3.0.9-py311haa95532_0
pyqt             pkgs/main/win-64::pyqt-5.15.10-py311hd77b12b_0
pyqt5-sip        pkgs/main/win-64::pyqt5-sip-12.13.0-py311h2bbff1b_0
qt-main          pkgs/main/win-64::qt-main-5.15.2-h19c9488_10
sip              pkgs/main/win-64::sip-6.7.12-py311hd77b12b_0
zstd             pkgs/main/win-64::zstd-1.5.5-hd43e919_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
pyqt-5.15.10          | 4.1 MB | ##### | 100%
libdeflate-1.17      | 153 KB | ##### | 100%
sip-6.7.12           | 615 KB | ##### | 100%
icu-73.1             | 29.5 MB | ##### | 100%
pyqt5-sip-12.13.0    | 75 KB | ##### | 100%
matplotlib-base-3.8. | 7.6 MB | ##### | 100%
pillow-10.2.0        | 953 KB | ##### | 100%
qt-main-5.15.2       | 59.4 MB | ##### | 99%
libpq-12.17          | 3.2 MB | ##### | 100%
contourpy-1.2.0      | 218 KB | ##### | 100%

Preparing transaction: done
Executing transaction: done

Kelas A - B - C - D
```

- Jika matplotlib berhasil di install akan muncul seperti ini

## 8. Instalasi Library Seaborn

```
C:\WINDOWS\system32\cmd. x + v

scikit-learn      1.2.2          py311hd77b12b_1

(matkulai) C:\Users\Moh Dicky Purnama>conda install seaborn
Collecting package metadata (current_repodata.json): done
Solving environment: done

==> WARNING: A newer version of conda exists. <==
current version: 23.7.4
latest version: 24.1.2

Please update conda by running

$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##

environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai

added / updated specs:
- seaborn

The following NEW packages will be INSTALLED:
```

- Masukkan syntax “conda install seaborn” untuk menginstal library seaborn

```
C:\WINDOWS\system32\cmd. x + v
$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##

environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai

added / updated specs:
- seaborn

The following NEW packages will be INSTALLED:

seaborn          pkgs/main/win-64::seaborn-0.12.2-py311h95532_0

Proceed ([y]/n)? y

Downloading and Extracting Packages

Preparing transaction: done
Executing transaction: done

(matkulai) C:\Users\Moh Dicky Purnama>
```

- Jika seaborn berhasil di install akan muncul seperti ini

## 9. Instalasi Library Scikit-Learn

```
C:\WINDOWS\system32\cmd. x + v
matplotlib-base      3.8.0          py311hf62ec03_0
matplotlib-inline    0.1.6          py311h95532_0

(matkulai) C:\Users\Moh Dicky Purnama>conda install scikit-learn
Collecting package metadata (current_repodata.json): done
Solving environment: done

=== WARNING: A newer version of conda exists. <===
current version: 23.7.4
latest version: 24.1.2

Please update conda by running

$ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

conda install conda=24.1.2

## Package Plan ##

environment location: C:\Users\Moh Dicky Purnama\anaconda3\envs\matkulai

added / updated specs:
- scikit-learn
```

- Masukkan syntax “conda install scikit-learn” untuk menginstal library scikit-learn

```
C:\WINDOWS\system32\cmd. x + v
-----|-----
scikit-learn-1.2.2 | py311hd77b12b_1 | 7.6 MB
-----|-----
Total: 7.6 MB

The following NEW packages will be INSTALLED:

joblib          pkgs/main/win-64::joblib-1.2.0-py311haa95532_0
scikit-learn    pkgs/main/win-64::scikit-learn-1.2.2-py311hd77b12b_1
threadpoolctl  pkgs/main/noarch::threadpoolctl-2.2.0-pyh0d69192_0

Proceed ([y]/n)? y

Downloading and Extracting Packages

Preparing transaction: done
Executing transaction: |

Windows 64-bit packages of scikit-learn can be accelerated using scikit-learn-intelex.
More details are available here: https://intel.github.io/scikit-learn-intelex

For example:

$ conda install scikit-learn-intelex
$ python -m sklearn my_application.py

done
```

- Jika scikit-learn berhasil di install akan muncul seperti ini

## 10. Membuat Hello Word dan Biodata Diri

```
Jupyter Untitled Last Checkpoint: 12 minutes ago
File Edit View Run Kernel Settings Help
+ + + + + Code v
5 print ("Asal :", asal)
NameError: name 'nama' is not defined

[5]: nama = "Moh. Dicky Purnama"
      umur = 19
      asal = "Brebes"
      tanggal_lahir = "05 Mei 2004"
      hobi = "Touring"

[6]: print ("Hello Word")
      print ("Biodata :")
      print ("Nama :", nama)
      print ("Umur :", umur)
      print ("Asal :", asal)
      print ("Tanggal Lahir :", tanggal_lahir)
      print ("Hobi :", hobi)

Hello Word
Biodata :
Nama : Moh. Dicky Purnama
Umur : 19
Asal : Brebes
Tanggal Lahir : 05 Mei 2004
Hobi : Touring

[ ]:
```