Day 20 (29/08/23): (Data Handling (Data Wrangling)):

Raw data: New data extracted from a database.
Internal Library (In-built Modules): Libraries that are already installed within python.
External Library (Packages): Libraries that are needed to be installed from another sources.
PANDAS: It is a python Library.

Purpose of PANDAS: They are used in cleaning, analysing, exploring & manipulating data
#pip → Packages Installer python.
Code in terminal: pip install pandas in terminal
Import pandas: #Never use modules directly, import using 'as' keyword.

Database:

S.no	Courses	Duration
1	python	30
2	java	45s
3	c++	25

Code:

```
import pandas as f
data={"Courses":["python","java","c++"],
      "Duration":[30,45,25]}
df=f.DataFrame(data)
print(df)
```

Output:

	Courses	Duration
0	python	30
1	java	45
2	c++	25

Locate Row:
It is used to extract the data need by the user from the database.

Code:

```
print(df.loc[0])
```

Output:
courses python
duration 30
Name: 0, dtype: object

#From database (.csv) file: CSV → Comma Seperated Value.

Head (10):
Displays the first (5 Row X 10 Column) data from the database

Tail (10):
Displays the last (5 Row X 10 Column) data from the database

Change the arguments in the head or tail functions of database to display accordingly.

Code:
```
print(df.head(2))
```

Output:
```
  courses  duration
0  python        30
1    java        45
```

Code:
```
print(df.tail(2))
```

Output:
```
  courses  duration
1    java        45
2     c++        25
```

Remove duplicates:
To remove the Duplicates from the database.

Code:
```
print(df.drop_duplicates(inplace=True))
```

Output:
None

Email Sending:
Note: Use google for finding codes to send emails.

Code:

```
#email sending:
print("To send Email:")
for i in df["duration:"]:
    print(i)
    import smtplib
    # creates SMTP session
    s = smtplib.SMTP('smtp.gmail.com', 587)
     # start TLS for security
    s.starttls()
     # Authentication
    s.login("Login Mail ID", "Login mail id password")
     # message to be sent
    message = "Code ran Successfully!!!"
     # sending the mail
    s.sendmail("sender mail id", i , message)
     # terminating the sessione
    s.quit()
```