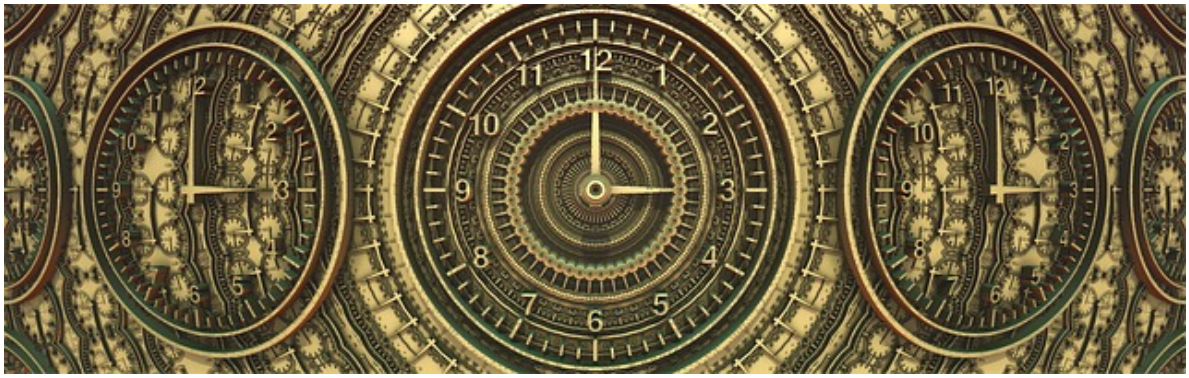
TheDataLytics



In [1]:

```
# Example 1: Get Current Date and Time
import datetime

datetime_object = datetime.datetime.now()
print(datetime_object)
```

```
2021-07-20 15:55:42.205845
```

In [2]:

```
# Example 2: Get Current Date

import datetime

date_object = datetime.date.today()
print(date_object)
```

```
2021-07-20
```

In [3]:

```
import datetime

print(dir(datetime))
```

```
['MAXYEAR', 'MINYEAR', '__builtins__', '__cached__', '__doc__', '__file__', '__loader_
_', '__name__', '__package__', '__spec__', 'date', 'datetime', 'datetime_CAPI', 'sys',
'time', 'timedelta', 'timezone', 'tzinfo']
```

In [4]:

```
# Example 3: Date object to represent a date

import datetime

d = datetime.date(2019, 4, 13)
print(d)
```

```
2019-04-13
```

In [5]:

```
from datetime import date

a = date(2019, 4, 13)
print(a)
```

```
2019-04-13
```

In [6]:

```
# Example 4: Get current date

from datetime import date

today = date.today()

print("Current date =", today)
```

```
Current date = 2021-07-20
```

In [7]:

```
# Example 5: Get date from a timestamp

from datetime import date

timestamp = date.fromtimestamp(1326244364)
print("Date =", timestamp)
```

```
Date = 2012-01-11
```

In [8]:

```
# Example 6: Print today's year, month and day

from datetime import date

# date object of today's date
today = date.today()

print("Current year:", today.year)
print("Current month:", today.month)
print("Current day:", today.day)
```

```
Current year: 2021
Current month: 7
Current day: 20
```

In [9]:

```
# Example 7: Time object to represent time

from datetime import time

# time(hour = 0, minute = 0, second = 0)
a = time()
print("a =", a)

# time(hour, minute and second)
b = time(11, 34, 56)
print("b =", b)

# time(hour, minute and second)
c = time(hour = 11, minute = 34, second = 56)
print("c =", c)

# time(hour, minute, second, microsecond)
d = time(11, 34, 56, 234566)
print("d =", d)
```

```
a = 00:00:00
b = 11:34:56
c = 11:34:56
d = 11:34:56.234566
```

In [10]:

```
# Example 8: Print hour, minute, second and microsecond

from datetime import time

a = time(11, 34, 56)

print("hour =", a.hour)
print("minute =", a.minute)
print("second =", a.second)
print("microsecond =", a.microsecond)
```

```
hour = 11
minute = 34
second = 56
microsecond = 0
```

In [11]:

```
# Example 9: Python datetime object

from datetime import datetime

#datetime(year, month, day)
a = datetime(2018, 11, 28)
print(a)

# datetime(year, month, day, hour, minute, second, microsecond)
b = datetime(2017, 11, 28, 23, 55, 59, 342380)
print(b)
```

```
2018-11-28 00:00:00
2017-11-28 23:55:59.342380
```

In [12]:

```
# Example 10: Print year, month, hour, minute and timestamp

from datetime import datetime

a = datetime(2017, 11, 28, 23, 55, 59, 342380)
print("year =", a.year)
print("month =", a.month)
print("hour =", a.hour)
print("minute =", a.minute)
print("timestamp =", a.timestamp())
```

```
year = 2017
month = 11
hour = 23
minute = 55
timestamp = 1511913359.34238
```

In [13]:

```
# Example 11: Difference between two dates and times

from datetime import datetime, date

t1 = date(year = 2018, month = 7, day = 12)
t2 = date(year = 2017, month = 12, day = 23)
t3 = t1 - t2
print("t3 =", t3)
```

```
t4 = datetime(year = 2018, month = 7, day = 12, hour = 7, minute = 9, second = 33)
t5 = datetime(year = 2019, month = 6, day = 10, hour = 5, minute = 55, second = 13)
t6 = t4 - t5
print("t6 =", t6)

print("type of t3 =", type(t3))
print("type of t6 =", type(t6))
```

```
t3 = 201 days, 0:00:00
t6 = -333 days, 1:14:20
type of t3 = <class 'datetime.timedelta'>
type of t6 = <class 'datetime.timedelta'>
```

In [14]:

```
# Example 12: Difference between two timedelta objects

from datetime import timedelta

t1 = timedelta(weeks = 2, days = 5, hours = 1, seconds = 33)
t2 = timedelta(days = 4, hours = 11, minutes = 4, seconds = 54)
t3 = t1 - t2

print("t3 =", t3)
```

```
t3 = 14 days, 13:55:39
```

In [15]:

```
# Example 13: Printing negative timedelta object

from datetime import timedelta

t1 = timedelta(seconds = 33)
t2 = timedelta(seconds = 54)
t3 = t1 - t2

print("t3 =", t3)
print("t3 =", abs(t3))
```

```
t3 = -1 day, 23:59:39
t3 = 0:00:21
```

In [16]:

```
# Example 14: Time duration in seconds

from datetime import timedelta

t = timedelta(days = 5, hours = 1, seconds = 33, microseconds = 233423)
print("total seconds =", t.total_seconds())
```

```
total seconds = 435633.233423
```

In [17]:

```
# Example 15: Format date using strftime()

from datetime import datetime

# current date and time
now = datetime.now()

t = now.strftime("%H:%M:%S")
print("time:", t)

s1 = now.strftime("%m/%d/%Y, %H:%M:%S")
# mm/dd/YY H:M:S format
print("s1:", s1)
```

```
s2 = now.strftime("%d/%m/%Y, %H:%M:%S")
# dd/mm/YY H:M:S format
print("s2:", s2)
```

```
time: 16:07:03
s1: 07/20/2021, 16:07:03
s2: 20/07/2021, 16:07:03
```

In [18]:

```
# Example 16: strptime()

from datetime import datetime

date_string = "21 June, 2018"
print("date_string =", date_string)

date_object = datetime.strptime(date_string, "%d %B, %Y")
print("date_object =", date_object)
```

```
date_string = 21 June, 2018
date_object = 2018-06-21 00:00:00
```

In [19]:

```
from datetime import datetime
import pytz

local = datetime.now()
print("Local:", local.strftime("%m/%d/%Y, %H:%M:%S"))


tz_NY = pytz.timezone('America/New_York')
datetime_NY = datetime.now(tz_NY)
print("NY:", datetime_NY.strftime("%m/%d/%Y, %H:%M:%S"))

tz_London = pytz.timezone('Europe/London')
datetime_London = datetime.now(tz_London)
print("London:", datetime_London.strftime("%m/%d/%Y, %H:%M:%S"))
```

```
Local: 07/20/2021, 16:07:46
NY: 07/20/2021, 12:07:46
London: 07/20/2021, 17:07:46
```