Dates in Python: Takeaways

Syntax

CONVERTING TIMESTAMPS

- Here are the attributes of the **struct_time** instance:
    - `tm_year` : The year of the timestamp
    - `tm_mon` : The month of the timestamp (1-12)
    - `tm_mday` : The day in the month of the timestamp (1-31)
    - `tm_hour` : The hour of the timestamp (0-23)
    - `tm_min` : The minute of the timestamp (0-59)

```
current_time = time.time()
current_struct_time = time.gmtime(current_time)
current_hour = current_struct_time.tm_hour
```

DATETIME CLASS

- Here are the attributes for the **datetime** instance:
    - `year` : returns the year value as an integer.
    - `month` : returns the month value an integer.
    - `day` : returns the day value as an integer.
    - `hour` : returns the hour value as an integer.
    - `minute` : returns the minute value as an integer.
    - `second` : returns the second value as an integer.
    - `microsecond` : returns the microsecond value as an integer.

```
current_datetime = datetime.datetime.utcnow()
current_year = current_datetime.year
current_month = current_datetime.month
```

- To use timedelta within datetime:

```
diff = datetime.timedelta(weeks = 3, days = 2)

future = today + diff
```

- Here are all the parameters for **timedelta**:
    - `weeks`
    - `days`
    - `hours`
    - `minutes`
    - `seconds`
    - `milliseconds`
    - `microseconds`
- To format the dates, we'll use **%** character to indicate where values should go:

```
march3 = datetime.datetime(year = 2010, month = 3, day = 3)

pretty_march3 = march3.strftime("%b %d, %Y")

print(pretty_march3)
```

Concepts

- A **Unix timestamp** is a floating point value with no explicit mention of day, month, or year. This value represents the number of seconds that have passed since the "epoch", or the first second of the year 1970.
- **UTC** stands for **Coordinated Universal Time**. This is the accepted time standard within the programming community.

Resources

- Python Documentation for Standard Library
- Python Documentation for time
- Python Documentation for time.time()
- Python Documentation for datetime
- Python Documentation for strftime