**ASSIGNMENT:**

**DATE AND TIME + MATH MODULE**

**Q1:What is the difference between math.floor() and math.ceil()?**

**Ans: math.ceil()** rounds up to the nearest integer greater than the number.

**math.floor()** rounds down the to the nearest integer smaller than the number.

**Q2:How is datetime.timedelta() useful in real-time applications?**

**Ans:**datetime.timedelta represents a duration or difference between two dates/times.

**Real-time use cases:**

Add or subtract days/hours/minutes to/from a datetime.

Calculate age, deadlines, delivery time, or time left in countdowns.

**Q3:Explain how calendar.weekday() works.**

**Ans:** calendar.weekday(year, month, day) returns the day of the week as an integer:

Return Day

0 Monday

1 Tuesday

2 Wednesday

3 Thursday

4 Friday

5 Saturday

6 Sunday

**Q4:Why is the math module needed when Python has \*\* for power?**

**Ans:** Both are used to raise a number to a given exponent or power. But math.pow() is more convenient because:

* It always returns the value in float
* handles math domain rules better

**Q5:How do you format dates for display or reports?**

**Ans:** I use **math.strftime()** to display dates or time in a formatted form .

Common format codes:

%Y – Year (2025)

%m – Month (07)

%d – Day (15)

%A – Full weekday name

%B – Full month name