Home Assignment <6>: Book Class Implementation

Learning Objective:

The learning objective of this assignment is to practice creating classes and objects in Python, defining attributes, and implementing methods that perform operations on those attributes.

Expected Completion Time:

Best Case: 10 minutes
Average Case: 15 minutes

Assignment Details:

Create a Python class named `Book` with the following:

- Attributes: `title`, `author`, and `publication_year`.
- A method `get_age()` that calculates and returns the age of the book in years (current year – publication_year).

Requirements:

- Define a class named `Book`.
- Use the `__init__` method to initialize attributes.
- Define the `get_age()` method inside the class.
- Create an object of the `Book` class and call the method to display the book's age.

Hints to Solve:

- Use the datetime module to get the current year.
- Subtract publication_year from the current year to find the age.
- Example structure:

```
import datetime

class Book:
    def __init__(self, title, author, publication_year):
        self.title = title
        self.author = author
        self.publication_year = publication_year

    def get_age(self):
        current_year = datetime.datetime.now().year
        return current_year - self.publication_year

# Example usage
book1 = Book("Python Basics", "John Doe", 2015)
print("Book Age:", book1.get_age(), "years")
```

Expected Outcome:

Upon completion, you should be able to understand:

- How to create a Python class with attributes and methods.
- How to initialize object attributes using the constructor (`__init__`).
- How to calculate values dynamically using a method.

If the current year is **2025** and the book was published in **2015**, the output should be:

- Book Age: 10 years