**Saumya Padhi.**

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**Program 1:**

The below program calculates area of two variables which user supplies

Calculate\_area is a function defined which multiplies two variables accepted as s x & y and prints area.

A screenshot of a computer

Description automatically generated

**Program 2:** the code takes a number as input, determines if it's prime using a simple algorithm, and then prints the result to the console.  
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Description automatically generated

**Program 3: String count.**

The code defines a function char\_count() that counts the occurrences of each character in a given string.

The char\_count() function creates a dictionary to store character counts and iterates through the string, updating the count for each character.

Finally, the code calls the char\_count() function with the string "Midland is getting colder" and prints the resulting character counts.

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**Program 4**

\_init\_\_(self, make, model, year, mileage): This is the constructor method that initializes the object's attributes when a new Car object is created.

display\_info(self): This method prints the car's information, including its make, model, year, and current mileage.

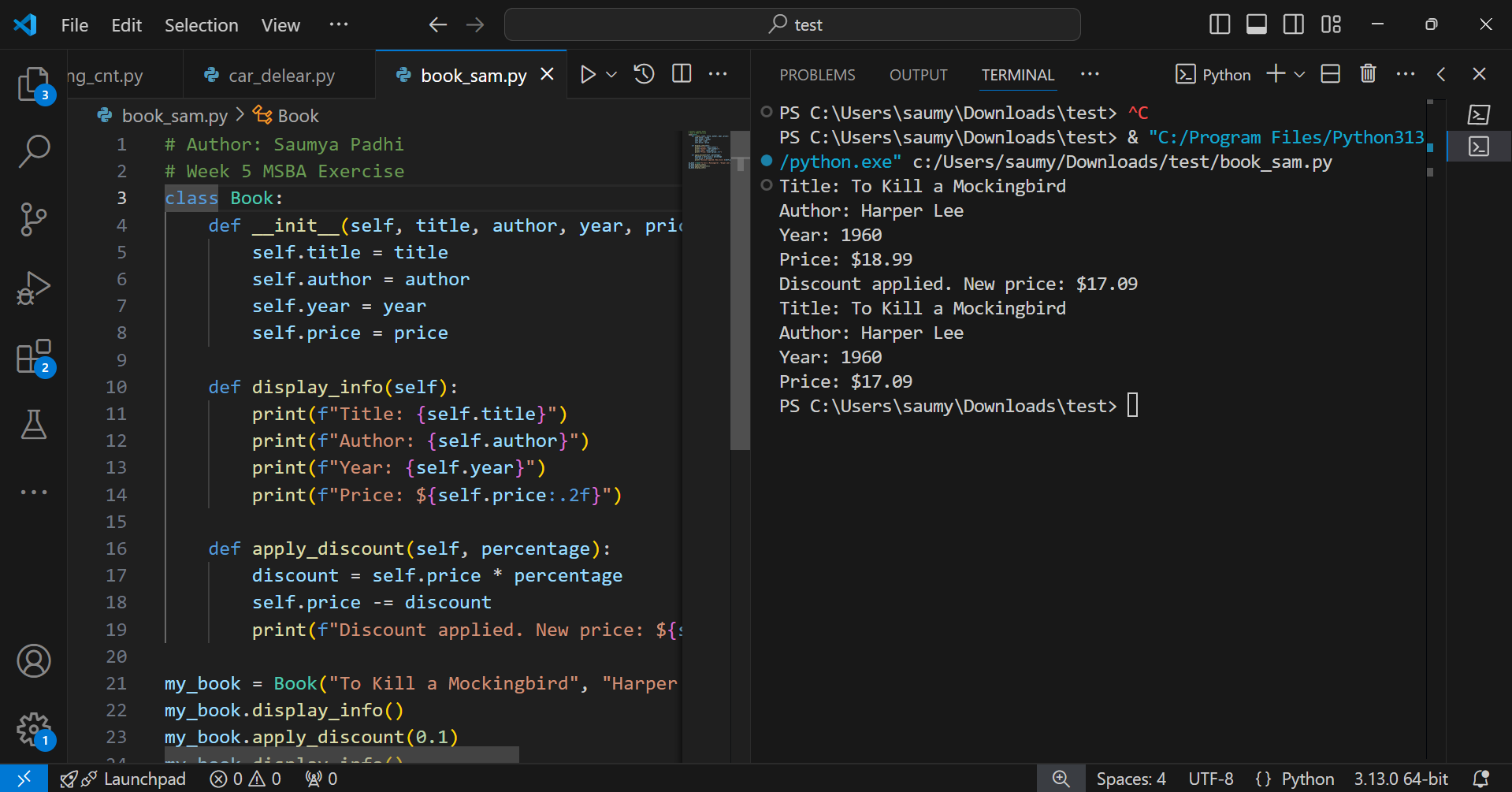
drive(self, miles): This method simulates driving the car by incrementing the mileage attribute by the specified number of miles.

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Description automatically generated**

**Program 5:**

The code defines a Book class with attributes for title, author, year, and price. A display\_info() method is defined to print the book's details. An apply\_discount() method calculates and applies a discount to the book's price. The code creates a Book object, displays its initial information, applies a 10% discount, and then displays the updated information.

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