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# I am creating a class to handle payment information
class Payment:
    """This is the class I am using to store payment and transaction
    details."""

    # In this constructor, I define the attributes for payment information
    def __init__(self, paymentid=0, paymentstatus=" ", paymentamount=0.0,
paymentdate=" ", cardtype=" ", currency=" ", taxamount=0.0):
        # These are my private attributes for storing payment details
        self.__paymentid = paymentid
        self.__paymentstatus = paymentstatus
        self.__paymentamount = paymentamount
        self.__paymentdate = paymentdate
        self.__cardtype = cardtype
        self.__currency = currency # it could be USD or AED but I picked
AED
        self.__taxamount = taxamount

    # I use this method to get the payment ID
    def get_paymentid(self):
        return self.__paymentid

    # This method allows me to get the current payment status
    def get_paymentstatus(self):
        return self.__paymentstatus

    # This method helps me retrieve the total payment amount
    def get_paymentamount(self):
        return self.__paymentamount

    # Here, I can get the payment date using this method
    def get_paymentdate(self):
        return self.__paymentdate

    # I use this method to get the card type used for the payment
    def get_cardtype(self):
        return self.__cardtype

    # This method allows me to retrieve the currency used for the payment
    def get_currency(self):
        return self.__currency

    # This method lets me get the tax amount applied to the payment
    def get_taxamount(self):
        return self.__taxamount

    # I use this method to set or update the payment ID
    def set_paymentid(self, paymentid):
        self.__paymentid = paymentid

    # I use this method to update the payment status
    def set_paymentstatus(self, paymentstatus):
        self.__paymentstatus = paymentstatus

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# This method allows me to set the payment amount
def set_paymentamount(self, paymentamount):
    self.__paymentamount = paymentamount

# I use this method to update the payment date
def set_paymentdate(self, paymentdate):
    self.__paymentdate = paymentdate

# I use this method to update the card type used for the payment
def set_cardtype(self, cardtype):
    self.__cardtype = cardtype

# This method allows me to update the currency used in the payment
def set_currency(self, currency):
    self.__currency = currency

# I use this method to set the tax amount for the payment
def set_taxamount(self, taxamount):
    self.__taxamount = taxamount

# I created this method to display the payment details neatly
def display_payment_details(self):
    # I'm using f-strings here to format and display all the payment
information
    print(f"Payment ID: {self.__paymentid}")
    print(f"Payment Status: {self.__paymentstatus}")
    print(f"Payment Amount: {self.__paymentamount}")
    print(f"Payment Date: {self.__paymentdate}")
    print(f"Card Type: {self.__cardtype}")
    print(f"Currency: {self.__currency}")
    print(f"Tax Amount: {self.__taxamount}")

# Creating an object with the payment information I have
payment_info = Payment(
    paymentid="P12345",
    paymentstatus="Completed",
    paymentamount=200.00,
    paymentdate="2024-09-22",
    cardtype="Visa",
    currency="AED", # I set the currency to AED
    taxamount=15.00
)

# Displaying the payment details using the method I defined earlier
payment_info.display_payment_details()

# I use the setter methods to update the payment ID if needed
# For example, I'm changing the payment ID to "P54321"
payment_info.set_paymentid("P54321")

# Displaying the updated payment details to confirm the changes worked

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print("\nUpdated Payment Details:")  
payment_info.display_payment_details()
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