7/31/25, 6:16 PM lab15 p3

```
#Currency Conversion: Create a Currency class that represents a monetary amount
        #in a specific currency. Overload the + operator to add amounts in the same curr
        #and implement a method to convert between different currencies.
        class Currency:
            exchange_rates = {
                 'USD': 1.0,
                 'EUR': 0.85,
                 'INR': 83.0,
                 'JPY': 110.0,
                 'GBP': 0.75,
            }
            def __init__(self, amount, currency):
                if currency not in Currency.exchange_rates:
                    raise ValueError(f"Unsupported currency: {currency}")
                self.amount = float(amount)
                self.currency = currency
            def __add__(self, other):
                if not isinstance(other, Currency):
                    raise TypeError("Only Currency instances can be added.")
                if self.currency != other.currency:
                    raise ValueError("Cannot add amounts in different currencies.")
                return Currency(self.amount + other.amount, self.currency)
            def convert_to(self, target_currency):
                if target_currency not in Currency.exchange_rates:
                     raise ValueError(f"Unsupported target currency: {target_currency}")
                amount_in_usd = self.amount / Currency.exchange_rates[self.currency]
                converted_amount = amount_in_usd * Currency.exchange_rates[target_curren
                return Currency(converted_amount, target_currency)
            def str (self):
                return f"{self.amount:.2f} {self.currency}"
        usd = Currency(100, "USD")
        eur = Currency(85, "EUR")
        inr = Currency(1000, "INR")
        usd2 = Currency(50, "USD")
        print("Addition:", usd + usd2)
        converted = usd.convert to("INR")
        print("Converted to INR:", converted)
       Addition: 150.00 USD
       Converted to INR: 8300.00 INR
In [ ]:
```