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# Ask user to enter the initial stock level, cast to integer and save as
initial_stock_level
initial_stock_level = int(input("Enter the initial stock level: "))

# Ask user to enter the planning horizon (number of months to plan), cast to
integer and save as no_of_months
no_of_months = int(input("Enter the initial stock level: "))

# Set an Accumulator for the dictionary of monthly sales
monthly_sales = {}

# For each month, ask user to enter the forecasted sale
# To do this loop through the month using a range
for month in range(1, no_of_months+1):
    # Ask user to enter the forecasted sale for the month, cast to integer and
    save as forecast
    forecasted_sale = int(input(f"Enter the forecasted sale for the month
{month}:"))
    # Add the forecast to the dictionary of monthly sales
    monthly_sales[month] = forecasted_sale

#print(monthly_sales)

# Print the resulting production quantities for each month

# Loop through the dictionary of monthly sales:
for month, forecast_sale in monthly_sales.items():
    # Check if forecast_sales > Initial Stock
    if initial_stock_level > forecast_sale:
        print(f"Production Quantity for Month {month} is 0")
    # Reduce the stock level by the production Amount
    initial_stock_level -= forecast_sale

    # Else:
    else:
        # How much do you have to produce for this month?
        quantity_produced = forecast_sale - initial_stock_level
        # Print the Production Quantity
        print(f"Production Quantity for Month {month} is {quantity_produced}")
        # Update the stock level
        initial_stock_level += quantity_produced - forecast_sale

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