In [ ]:
```python
#%% Write a program that prompts the user to input a year, checks whether it's a l
def leap_year(year):
    return (year % 4 == 0)

year = int(input("Enter a year: "))
if leap_year(year) == True:
    print(f"{year} is a leap year")
else:
    print(f"{year} is not a leap year")
```

```
2000 is a leap year
```

In [ ]:
```python
#%% Write a Python program that prompts the user to input a word. The program shoul

vowels = ['a','e','i','o','u']

count = 0
user_input = input("Enter your word:")


for vowel in vowels:
    count = user_input.count(vowel) + count

print("The vowels count is",count)
```

```
The vowels count is 10
```

In [ ]:
```python
#%% Write a Python program that allows the user to input a list of 6 names. After r
list = []

for i in range(6):
    name = input("Enter names:")
    list.append(name)


for name in list:
    if name[0].lower() == 'a':
        print("The name starts with a",name)
```

```
The name starts with a Aru
The name starts with a Avi
The name starts with a asha
The name starts with a aish
The name starts with a ash
```

In [ ]:
```python
'''Write a Python program that takes a list of 10 integers as input. Your program s
        For each even number encountered, print the number squared.
        For each odd number encountered, print the number cubed. '''

list = []
for number in range(10):
    number = int(input("The number is:"))
    list.append(number)
```

```
print(list)


for number in list:
    if number%2==0:
        print("The number is even and the square of the number would be:",(number**
    else:
        print("The number is odd and the cube of the number is:",(number**3))
```

```
[2, 3, 4, 5, 6, 7, 8, 9, 1, 10]
The number is even and the square of the number would be: 4
The number is odd and the cube of the number is: 27
The number is even and the square of the number would be: 16
The number is odd and the cube of the number is: 125
The number is even and the square of the number would be: 36
The number is odd and the cube of the number is: 343
The number is even and the square of the number would be: 64
The number is odd and the cube of the number is: 729
The number is odd and the cube of the number is: 1
The number is even and the square of the number would be: 100
```

In [ ]:
```
# %% Imagine you're ordering flowers from a local delivery service. They offer a se
roses = int(input("Enter the number of roses needed:"))
distance = float(input("Enter your distance in KM"))

if distance <= 5:
    delivery_charge = 25
    print(f"The delivery charge when {distance} kms is {delivery_charge}")
elif 5 < distance <= 10:
    delivery_charge = 50
    print(f"the delivery charge when {distance} kms is {delivery_charge}")
else:
    delivery_charge = 70
    print(f"The delivery charge when {distance} kms is {delivery_charge}")
price_of_roses = roses*10

charge = delivery_charge+price_of_roses
print("The total charge is:",charge)
```

```
The delivery charge when 21.0 kms is 70
The total charge is: 270
```

In [ ]: