

Q1

```
a=[1,2,2,3,3,4,4,4,4,5,5,5,5]
b=[]
while a:
    c=a[0]
    d=0
    for i in a:
        if a.count(i) > d:
            d = a.count(i)
            c = i
    for i in range(d):
        b.append(c)
        a.remove(c)
print(b)
```

```
[1]: a=[1,2,2,3,3,4,4,4,4,5,5,5,5]
b=[]
while a:
    c=a[0]
    d=0
    for i in a:
        if a.count(i) > d:
            d = a.count(i) |
            c = i
    for i in range(d):
        b.append(c)
        a.remove(c)
print(b)
```

```
[5, 5, 5, 5, 4, 4, 4, 4, 2, 2, 3, 3, 1]
```

Q2.

```
a=input("Enter a string ")
b=input("Enter a character")
ch=lambda x, y:x.startswith(y)
if ch(a, b):
    print("Yes")
else:
    print("No")
```

```
[2]: a=input("Enter a string ")
b=input("Enter a character")
ch=lambda x, y:x.startswith(y)
if ch(a, b):
    print("Yes")
else:
    print("No")
```

```
Enter a string java
```

```
Enter a character v
```

```
No
```

Q3.

```
a = ["python", "java", "ram", "sham", "mouse", "abcdef"]
b = list(filter(lambda x: len(x)==6, a))
print("6 char Values ", b)
```

A screenshot of a Jupyter Notebook cell. The code block contains three lines of Python code: defining a list 'a', filtering it to create 'b' (containing strings of length 6), and printing the result. The output cell shows the output of the print statement: '6 char Values ['python', 'abcdef']'. The interface includes a toolbar with icons for file operations and a status bar at the bottom.

```
[3]: a = ["python", "java", "ram", "sham", "mouse", "abcdef"]
      b = list(filter(lambda x: len(x)==6, a))
      print("6 char Values ", b)

6 char Values ['python', 'abcdef']
```

Q4.

```
n = int(input("Enter value "))
fib = lambda n: n if n <= 1 else fib(n-1) + fib(n-2)
print("Fibonacci series")
for i in range(n):
    print(fib(i), end=" ")
```

A screenshot of a Jupyter Notebook cell. The code block defines a function using a lambda expression to calculate the nth Fibonacci number. It then prints the first 10 numbers in the sequence. The output cell shows the input 'Enter value 10' and the resulting Fibonacci series: 0 1 1 2 3 5 8 13 21 34. The interface includes a toolbar with icons for file operations and a status bar at the bottom.

```
[6]: n = int(input("Enter value "))
      fib = lambda n: n if n <= 1 else fib(n-1) + fib(n-2)
      print("Fibonacci series")
      for i in range(n):
          print(fib(i), end=" ")

Enter value 10
Fibonacci series
0 1 1 2 3 5 8 13 21 34
```

