Q.1) Write a Python program to count the even, odd numbers in a given array of integers using Lambda.

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
even_numbers = list(filter(lambda x: x % 2 == 0, numbers))
even_count = len(even_numbers)
odd_numbers = list(filter(lambda x: x % 2 !=0, numbers))
odd_count = len(odd_numbers)
print(f"Original array: {numbers}")
print(f"Even numbers: {even_numbers}")
print(f"Count of even numbers: {even_count}")
print(f"Odd numbers: {odd_numbers}")
print(f"Count of even numbers: {odd_count}")
```

```
[2]: numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
     even_numbers = list(filter(lambda x: x % 2 == 0, numbers))
     even_count = len(even_numbers)
     odd_numbers = list(filter(lambda x: x % 2 !=0, numbers))
     odd_count = len(odd_numbers)
     print(f"Original array: {numbers}")
     print(f"Even numbers: {even_numbers}")
     print(f"Count of even numbers: {even_count}")
     print(f"Odd numbers: {odd_numbers}")
     print(f"Count of even numbers: {odd_count}")

     Original array: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
     Even numbers: [2, 4, 6, 8, 10]
     Count of even numbers: 5
     Odd numbers: [1, 3, 5, 7, 9]
     Count of even numbers: 5
```

Q.2) Write a Python program to find palindromes in a given list of strings using Lambda.

```
a=["RAM", "Laxman", "NITIN","Hello", "CDAC", "ABBA"]
palindrome = list(filter(lambda x:x==x[::-1],a))
print(f"String is palindrome: {palindrome}")
```

```
[3]: a=["RAM", "Laxman", "NITIN","Hello", "CDAC", "ABBA"]
     palindrome = list(filter(lambda x:x==x[::-1],a))
     print(f"String is palindrome: {palindrome}")

     String is palindrome: ['NITIN', 'ABBA']
```

Q.4) Write a Python program to convert a byte string to a list of integers.

```
str= b'hello'
int_list = list(str)
print(int_list)
```

```
[7]: str= b'hello'
     int_list = list(str)
     print(int_list)

     [104, 101, 108, 108, 111]
```

Q.3) Solve the following pattern using one loop only: accept no. of rows from user.

```
row = int(input("Enter Number of Rows : "))
s = ""

for i in range(1,row+1):
    s = s + str(i)
    print(s +s[-2::-1])
```

```
Enter Number of Rows : 4
1
121
12321
1234321
```