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**SEM/SEC:5/B**

**REG NO.:FA20-BCS-038**

**SUBJECT: AI LAB**

**LAB ACTIVITY:01**

Q.Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

SOLUTION:

```
#The original array
arr = [11, 22, 33, 44, 55]
print("Array is :",arr)

res = arr[::-1] #reversing using list slicing
print("Resultant new reversed array:",res)
```

Lab Task 2: Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

SOLUTION:

# Python Program to find Sum of Even and Odd Numbers from 1 to N

```
maximum = int(input(" Please Enter the Maximum Value : "))
```

```
even_total = 0
```

```
odd_total = 0
```

```
for number in range(1, maximum + 1):
```

```
if(number % 2 == 0):  
  
    even_total = even_total + number  
  
else:  
  
    odd_total = odd_total + number
```

```
print("The Sum of Even Numbers from 1 to {0} = {1}".format(number, even_total))
```

```
print("The Sum of Odd Numbers from 1 to {0} = {1}".format(number, odd_total))
```

Lab Task 3: Fibonacci series is that when you add the previous two numbers the next number is formed. You have to start from 0 and 1.

Solution:-

Lab Task 4: Write a Python code to accept marks of a student from 1-100 and display the grade according to the following formula.

Solution:

```
print("Enter Marks Obtained in 5 Subjects: ")  
markOne = int(input())  
markTwo = int(input())  
markThree = int(input())  
markFour = int(input())  
markFive = int(input())  
  
tot = markOne+markTwo+markThree+markFour+markFive  
avg = tot/5  
  
if avg>=91 and avg<=100:  
    print("Your Grade is A")  
elif avg>=81 and avg<91:  
    print("Your Grade is B")  
elif avg>=71 and avg<81:  
    print("Your Grade is C")  
elif avg>=61 and avg<71:  
    print("Your Grade is D")  
elif avg>=51 and avg<61:
```

```
    print("Your Grade is E")
elif avg >= 50:
    print("Your Grade is F")
```

Lab Task 5: Write a program that takes a number from user and calculate the factorial of that number

Solution:

```
num = 7
```

```
#num = int(input("Enter a number: "))
```

```
factorial = 1
```

```
if num < 0:
```

```
    print("Sorry, factorial does not exist for negative numbers")
```

```
elif num == 0:
```

```
    print("The factorial of 0 is 1")
```

```
else:
```

```
    for i in range(1, num + 1):
```

```
        factorial = factorial * i
```

```
    print("The factorial of", num, "is", factorial)
```

