WEB PROGRAMMING LAB-4 LAB EXERCISES

Date @January 28, 2026

Question 1:

Write a python program to reverse a content a file and store it in another file.

Code:

```
inp = input("Enter input file name: ")
out = input("Enter output file name: ")

f = open(inp, "r")
data = f.read()
f.close()

rev = data[::-1]

f = open(out, "w")
f.write(rev)
f.close()

print("Reversed content:")
print(rev)
```

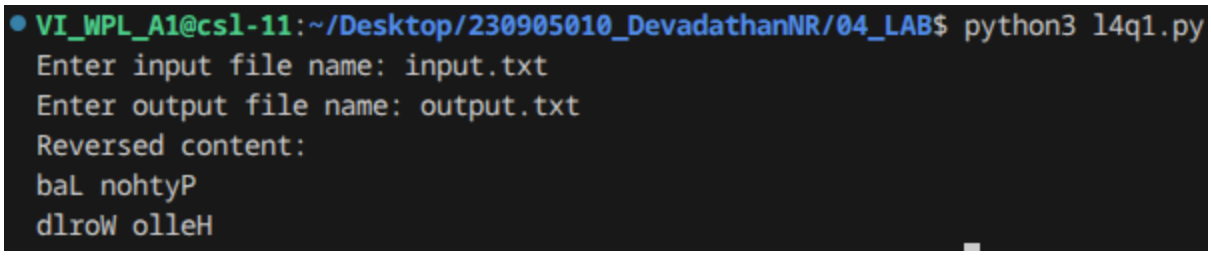
Output:

input.txt

```
Hello World
Python Lab
```

output.txt

```
baL nohtyP
dlroW olleH
```



Question 2:

Write a python program to implement binary search with recursion.

Code:

```
def binary_search(arr, l, r, x):
    if l > r:
        return -1
    m = (l + r) // 2
    if arr[m] == x:
        return m
    if arr[m] > x:
        return binary_search(arr, l, m - 1, x)
    return binary_search(arr, m + 1, r, x)

n = int(input("Enter number of elements: "))
arr = list(map(int, input("Enter sorted elements: ").split()))
x = int(input("Enter element to search: "))

pos = binary_search(arr, 0, n - 1, x)
```

```
if pos == -1:
    print("Element not found")
else:
    print("Element found at index", pos)
```

Output:

Question 3:

Write a python program to sort words in alphabetical order.

Code:

```
n = int(input("Enter number of words: "))
words = []

for i in range(n):
    words.append(input("Enter word: "))

words.sort()

print("Words in alphabetical order:")
for w in words:
    print(w)
```

Output:

```
VI_WPL_A1@csl-11:~/Desktop/230905010_DevadathanNR/04_LAB$ python3 l4q3.py
Enter number of words: 4
Enter word: deva
Enter word: veda
Enter word: vada
Enter word: pav
Words in alphabetical order:
deva
pav
vada
veda
```

Question 4:

Write a Python class to get all possible unique subsets from a set of distinct integers Input:[4,5,6]
Output : [[], [6], [5], [5, 6], [4], [4, 6], [4, 5], [4, 5, 6]]

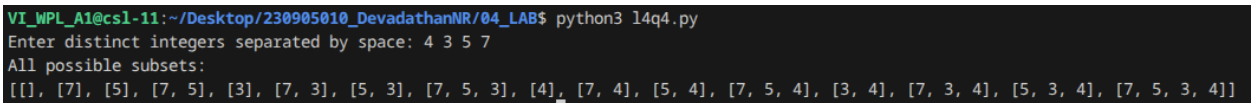
Code:

```
class Subsets:
    def get_subsets(self, nums):
        res = []
        n = len(nums)
        for i in range(1 << n):
            cur = []
            for j in range(n):
                if i & (1 << j):
                    cur.append(nums[n - 1 - j])
            res.append(cur)
        return res

nums = list(map(int, input("Enter distinct integers separated by space: ").split
()))
obj = Subsets()
```

```
print("All possible subsets:")
print(obj.get_subsets(nums))
```

Output:



Question 5:

Write a Python class to find a pair of elements (indices of the two numbers) from a given array whose sum equals a specific target number.
Input: numbers= [10,20,10,40,50,60,70], target=50
Output: 3, 4.

Code:

```
class PairSum:
    def find(self, nums, target):
        d = {}
        for i in range(len(nums)):
            if target - nums[i] in d:
                return d[target - nums[i]] + 1, i + 1
            d[nums[i]] = i

nums = list(map(int, input("Enter numbers separated by space: ").split()))
target = int(input("Enter target sum: "))
p = PairSum()
i, j = p.find(nums, target)
print("Indices:", i, j)
```

Output:

```
VI_WPL_A1@csl-11:~/Desktop/230905010_DevadathanNR/04_LAB$ python3 l4q5.py
Enter numbers separated by space: 5 4 2 7 9 4
Enter target sum: 7
Indices: 1 3
```

Question 6:

Write a Python class to implement pow(x, n).

Code:

```python
class Power:
    def pow(self, x, n):
        if n == 0:
            return 1
        if n < 0:
            return 1 / self.pow(x, -n)
        return x * self.pow(x, n - 1)

x = float(input("Enter value of x: "))
n = int(input("Enter value of n: "))
p = Power()
print("Result:", p.pow(x, n))
```

Output:

```
VI_WPL_A1@csl-11:~/Desktop/230905010_DevadathanNR/04_LAB$ python3 l4q6.py
Enter value of x: 34
Enter value of n: 3
Result: 39304.0
```

Question 7:

Write a Python class which has two methods get_String and print_String. The get_String accept a string from the user and print_String print the string in upper case.

Code:

```
class StringOps:
    def get_String(self):
        self.s = input("Enter a string: ")

    def print_String(self):
        print("Uppercase string:", self.s.upper())

obj = StringOps()
obj.get_String()
obj.print_String()
```

Output: