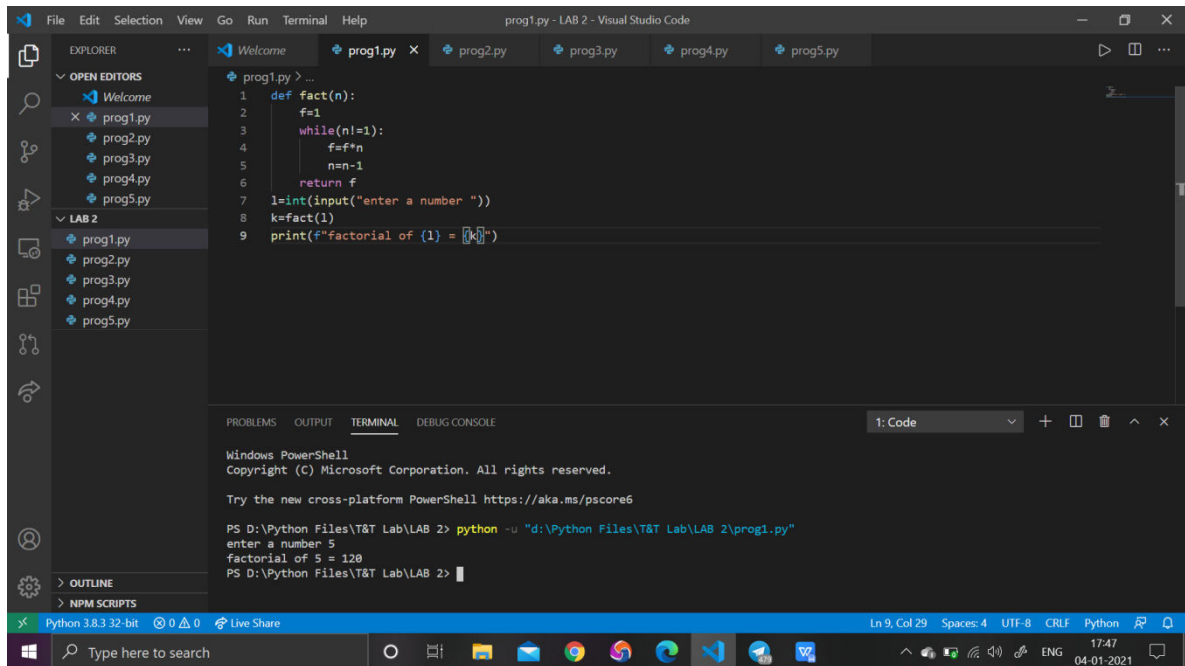


T&T Lab-2

BISWARUP MUKHERJEE

ROLL-1806468

1. WAP to create a function which will return factorial of number n.



The screenshot shows the Visual Studio Code interface with a file explorer on the left containing files prog1.py through prog5.py under a folder named LAB 2. The main editor window displays prog1.py with the following code:

```
1 def fact(n):
2     f=1
3     while(n!=1):
4         f=f*n
5         n=n-1
6     return f
7 l=int(input("enter a number "))
8 k=fact(l)
9 print(f"factorial of {l} = {k}")
```

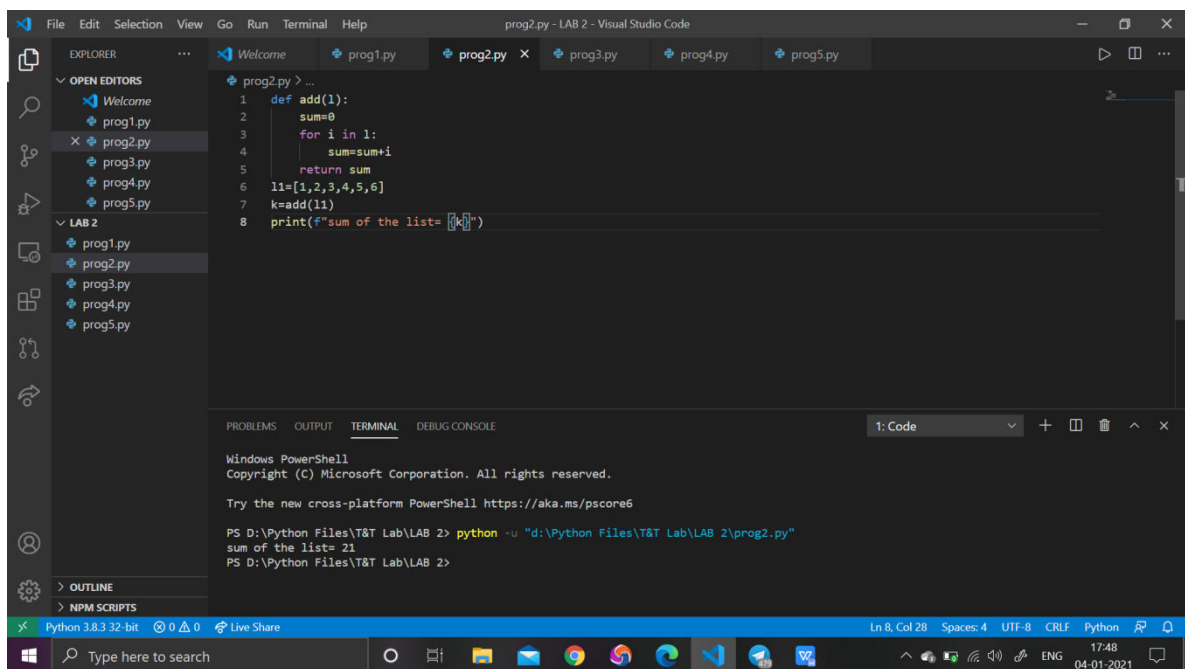
The terminal at the bottom shows the execution of the program:

```
Windows PowerShell
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PS D:\Python Files\T&T Lab\LAB 2> python -u "d:\Python Files\T&T Lab\LAB 2\prog1.py"
enter a number 5
factorial of 5 = 120
PS D:\Python Files\T&T Lab\LAB 2>
```

2. WAP to create a function which will return addition of all the no. in a list.



The screenshot shows the Visual Studio Code interface with a file explorer on the left containing files prog1.py through prog5.py under a folder named LAB 2. The main editor window displays prog2.py with the following code:

```
1 def add(l):
2     sum=0
3     for i in l:
4         sum=sum+i
5     return sum
6 l1=[1,2,3,4,5,6]
7 k=add(l1)
8 print(f"sum of the list= {k}")
```

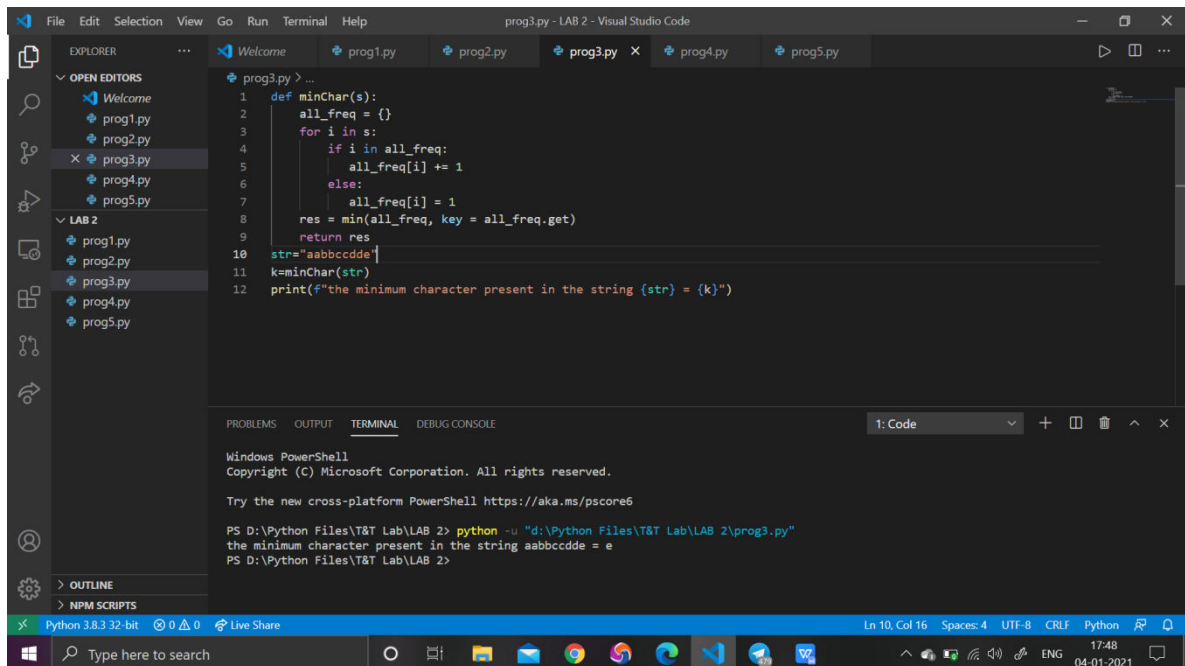
The terminal at the bottom shows the execution of the program:

```
Windows PowerShell
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PS D:\Python Files\T&T Lab\LAB 2> python -u "d:\Python Files\T&T Lab\LAB 2\prog2.py"
sum of the list= 21
PS D:\Python Files\T&T Lab\LAB 2>
```

3. WAP to create a function which will find the least frequent character in a string.



The screenshot shows the Visual Studio Code interface with a Python file named `prog3.py` open. The code defines a function `minChar(s)` that finds the least frequent character in a string `s`. The function uses a dictionary `all_freq` to count the frequency of each character. The string `str="aabbccdde"` is used as an example, and the output is `the minimum character present in the string {str} = {k}`, where `k` is the least frequent character.

```
1 def minChar(s):
2     all_freq = {}
3     for i in s:
4         if i in all_freq:
5             all_freq[i] += 1
6         else:
7             all_freq[i] = 1
8     res = min(all_freq, key = all_freq.get)
9     return res
10 str="aabbccdde"
11 k=minChar(str)
12 print(f"the minimum character present in the string {str} = {k}")
```

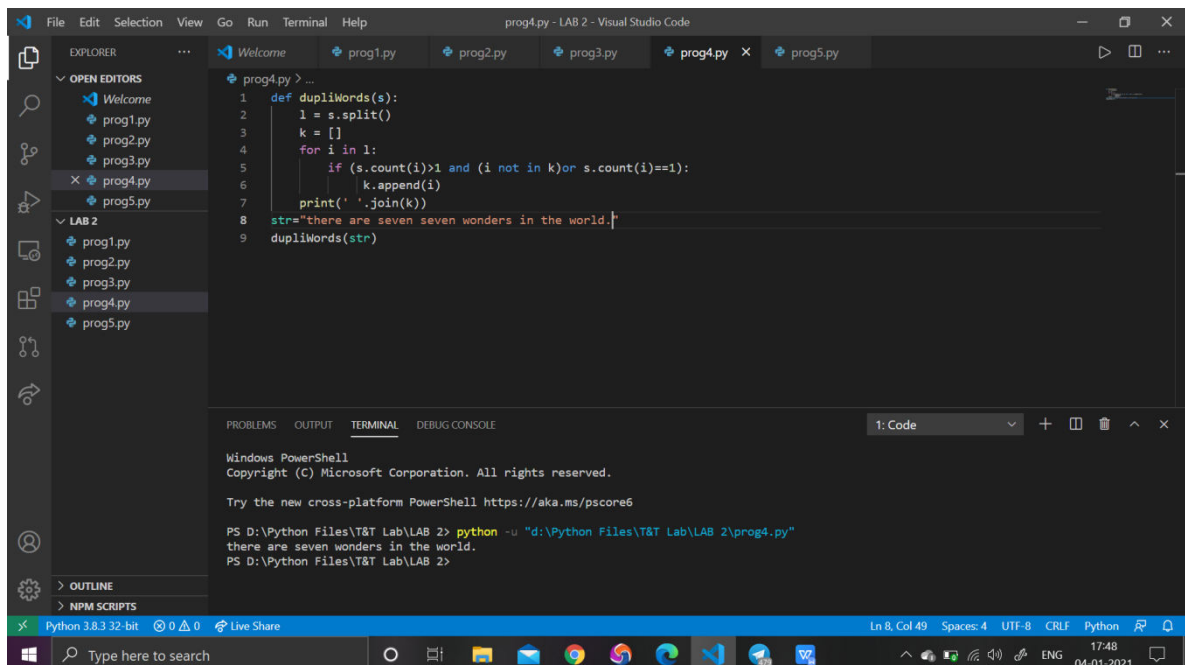
The terminal output shows the execution of the program:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\Python Files\T&T Lab\LAB 2> python -u "d:\Python Files\T&T Lab\LAB 2\prog3.py"
the minimum character present in the string aabbccdde = e
PS D:\Python Files\T&T Lab\LAB 2>
```

4. WAP to remove duplicate words from a sentence.



The screenshot shows the Visual Studio Code interface with a Python file named `prog4.py` open. The code defines a function `dupliWords(s)` that removes duplicate words from a sentence `s`. The function splits the sentence into words, removes duplicates, and joins them back into a sentence. The string `str="there are seven wonders in the world."` is used as an example, and the output is `there are seven wonders in the world.`

```
1 def dupliWords(s):
2     l = s.split()
3     k = []
4     for i in l:
5         if (s.count(i)>1 and (i not in k) or s.count(i)==1):
6             k.append(i)
7     print(' '.join(k))
8 str="there are seven wonders in the world."
9 dupliWords(str)
```

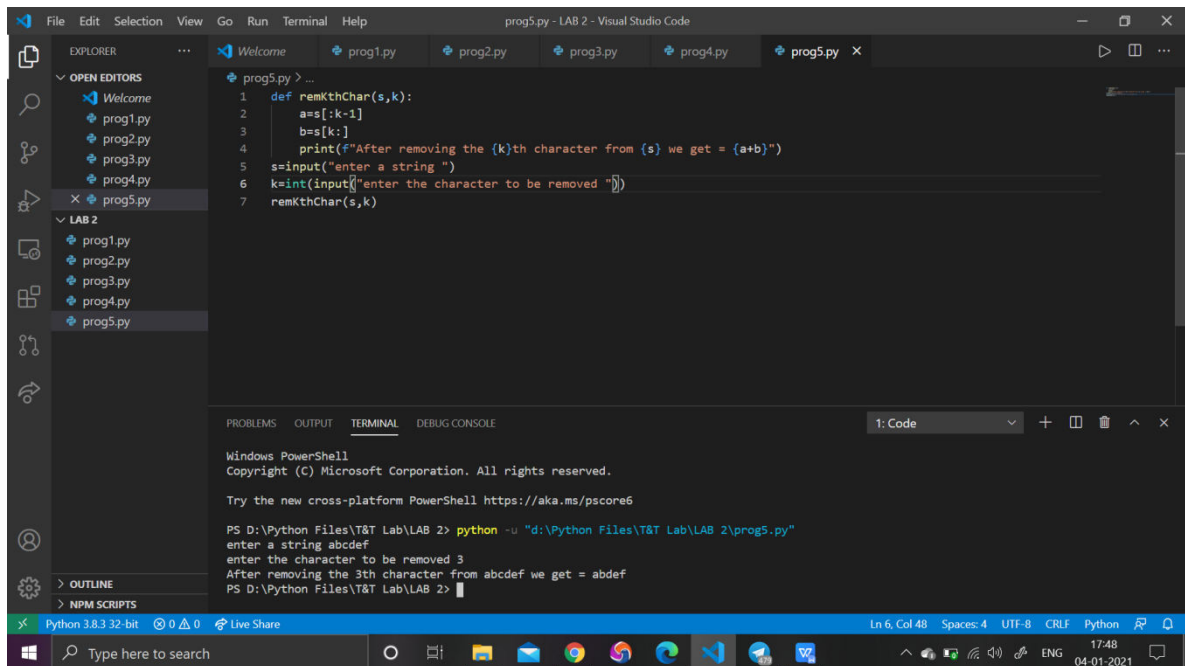
The terminal output shows the execution of the program:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\Python Files\T&T Lab\LAB 2> python -u "d:\Python Files\T&T Lab\LAB 2\prog4.py"
there are seven wonders in the world.
PS D:\Python Files\T&T Lab\LAB 2>
```

5. WAP to create a function which will remove the Kth character from a string.



The screenshot shows the Visual Studio Code interface with a Python file named `prog5.py` open. The code defines a function `remKthChar(s,k)` that removes the kth character from a string `s`. The function uses slicing to create a new string `a` from `s` up to the kth character, and another string `b` from the kth character to the end of `s`. It then concatenates `a` and `b` to form the result. The program prompts the user to enter a string and a character index, and prints the result.

```
1 def remKthChar(s,k):
2     a=s[:k-1]
3     b=s[k:]
4     print(f"After removing the {k}th character from {s} we get = {a+b}")
5 s=input("enter a string ")
6 k=int(input("enter the character to be removed "))
7 remKthChar(s,k)
```

The terminal output shows the execution of the program:

```
Windows PowerShell
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PS D:\Python Files\T&T Lab\LAB 2> python -u "d:\Python Files\T&T Lab\LAB 2\prog5.py"
enter a string abcdef
enter the character to be removed 3
After removing the 3th character from abcdef we get = abdef
PS D:\Python Files\T&T Lab\LAB 2>
```