



## **Homework # 10**

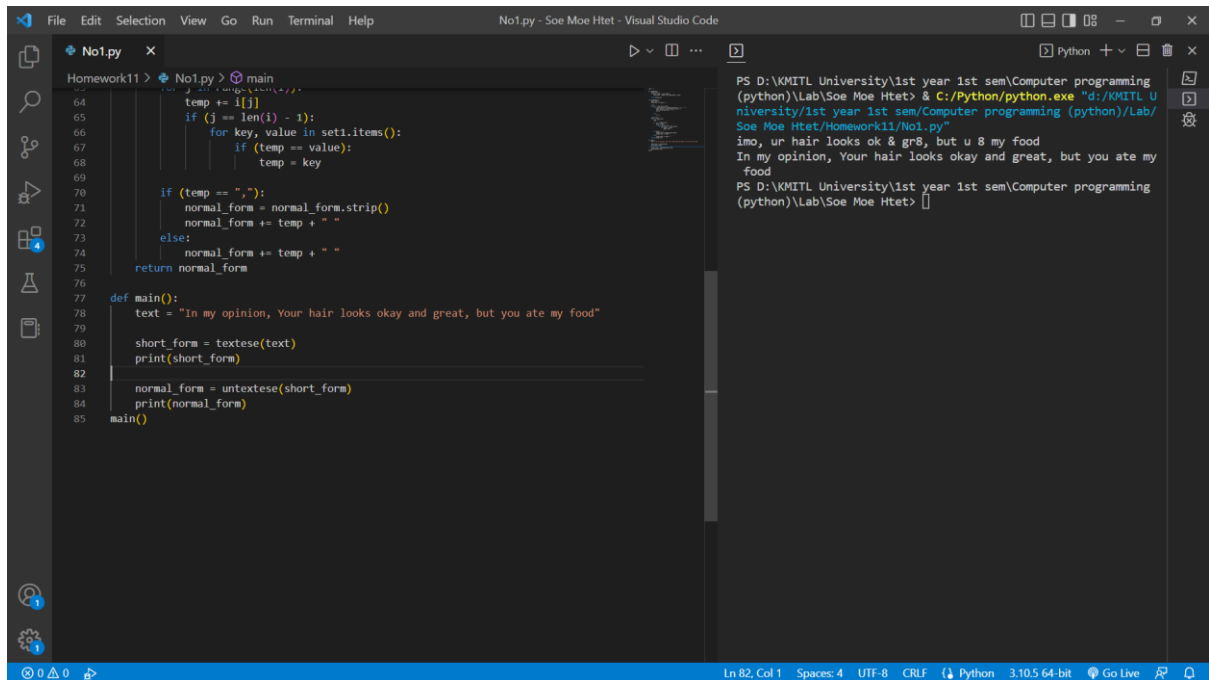
**01286121 Computer Programming  
Software Engineering Program,  
Department of Computer Engineering,  
School of Engineering, KMITL**

By

65011693 Soe Moe Htet  
(Nickname – Stephen)

No1

Result:



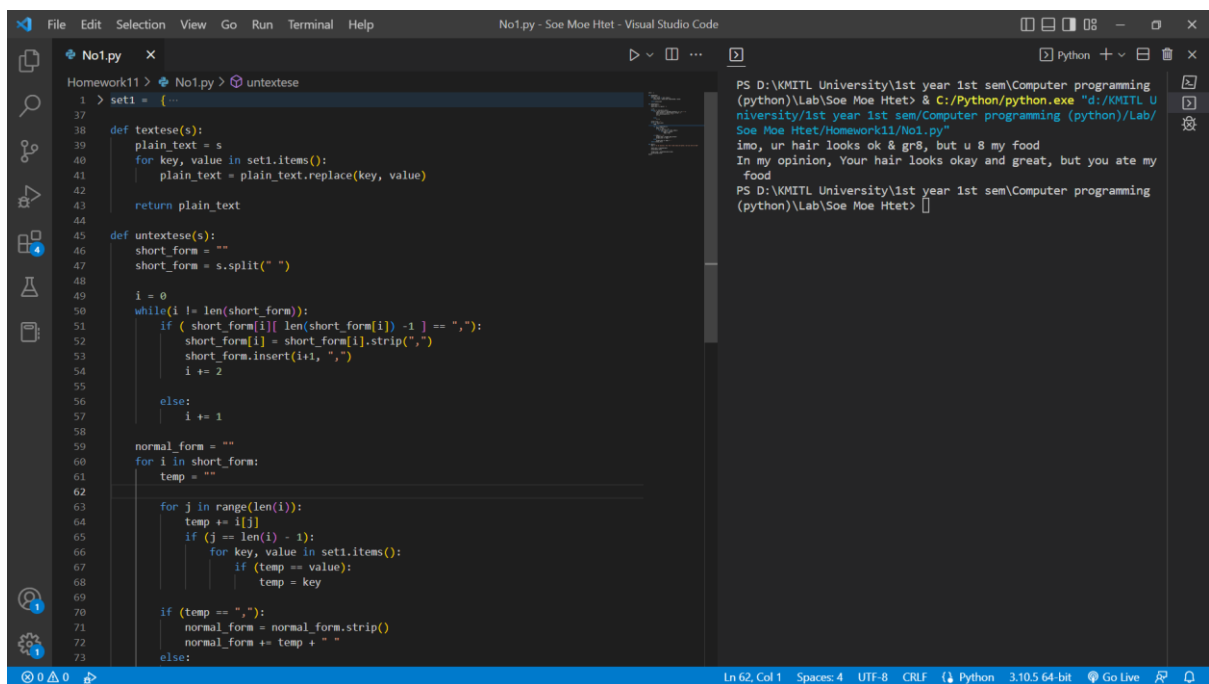
```
File Edit Selection View Go Run Terminal Help
No1.py - Soe Moe Htet - Visual Studio Code

No1.py
Homework11 > No1.py > main
64     temp += i[j]
65     if (j == len(i) - 1):
66         for key, value in set1.items():
67             if (temp == value):
68                 temp = key
69
70     if (temp == ","):
71         normal_form = normal_form.strip()
72         normal_form += temp + " "
73     else:
74         normal_form += temp + " "
75     return normal_form
76
77 def main():
78     text = "In my opinion, Your hair looks okay and great, but you ate my food"
79
80     short_form = textese(text)
81     print(short_form)
82
83     normal_form = untextese(short_form)
84     print(normal_form)
85     main()
```

PS D:\KMITL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet> & C:/Python/python.exe "d:/KMITL University/1st year 1st sem/Computer programming (python)/Lab/Soe Moe Htet/Homework11/No1.py"

imo, ur hair looks ok & gr8, but u 8 my food  
In my opinion, Your hair looks okay and great, but you ate my food  
PS D:\KMITL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet>

Ln 82, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.5 64-bit Go Live



```
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No1.py - Soe Moe Htet - Visual Studio Code

No1.py
Homework11 > No1.py > untextese
1 > set1 = { ...
37
38 def textese(s):
39     plain_text = s
40     for key, value in set1.items():
41         plain_text = plain_text.replace(key, value)
42
43     return plain_text
44
45 def untextese(s):
46     short_form = ""
47     short_form = s.split(" ")
48
49     i = 0
50     while(i != len(short_form)):
51         if (short_form[i][len(short_form[i]) - 1] == ","):
52             short_form[i] = short_form[i].strip(",")
53             short_form.insert(i+1, ",")
54             i += 2
55         else:
56             i += 1
57
58     normal_form = ""
59     for i in short_form:
60         temp = ""
61
62         for j in range(len(i)):
63             temp += i[j]
64             if (j == len(i) - 1):
65                 for key, value in set1.items():
66                     if (temp == value):
67                         temp = key
68
69         if (temp == ","):
70             normal_form = normal_form.strip()
71             normal_form += temp + " "
72         else:
73             normal_form += temp + " "
```

PS D:\KMITL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet> & C:/Python/python.exe "d:/KMITL University/1st year 1st sem/Computer programming (python)/Lab/Soe Moe Htet/Homework11/No1.py"

imo, ur hair looks ok & gr8, but u 8 my food  
In my opinion, Your hair looks okay and great, but you ate my food  
PS D:\KMITL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet>

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Code:

```
set1 = {
    "be": "b",
    "because": "cuz",
    "see": "c",
    "the": "da",
    "okay": "ok",
    "are": "r",
    "you": "u",
    "without": "w/o",
    "why": "y",
    "see you": "cu",
    "ate": "8",
    "great": "gr8",
    "mate": "m8",
    "wait": "w8",
    "later": "!8r",
    "tomorrow": "tmr",
    "for": "4",
    "before": "b4",
    "once": "1ce",
    "and": "&",
    "Your": "ur",
    "You're": "ur",
    "As far as I know": "afaik",
    "As soon as possible": "asap",
    "At the moment": "atm",
    "Be right back": "brb",
    "By the way": "btw",
    "For your information": "FYI",
    "In my humble opinion": "imho",
    "In my opinion": "imo",
    "Laughing out loud": "lol",
    "Oh my god": "omg",
    "Rolling on the floor laughing": "rofl",
    "Talking to you later": "ttyl",
}

def textese(s):
    plain_text = s
    for key, value in set1.items():
        plain_text = plain_text.replace(key, value)

    return plain_text

def untextese(s):
    short_form = ""
    short_form = s.split(" ")

    i = 0
    while(i != len(short_form)):
        if ( short_form[i][ len(short_form[i]) -1 ] == ","):
            short_form[i] = short_form[i].strip(",")
            short_form.insert(i+1, ",")
            i += 2

    else:
```

```

        i += 1

normal_form = ""
for i in short_form:
    temp = ""

    for j in range(len(i)):
        temp += i[j]
        if (j == len(i) - 1):
            for key, value in set1.items():
                if (temp == value):
                    temp = key

    if (temp == ","):
        normal_form = normal_form.strip()
        normal_form += temp + " "
    else:
        normal_form += temp + " "
return normal_form

def main():
    text = "In my opinion, Your hair looks okay and great, but you ate my food"

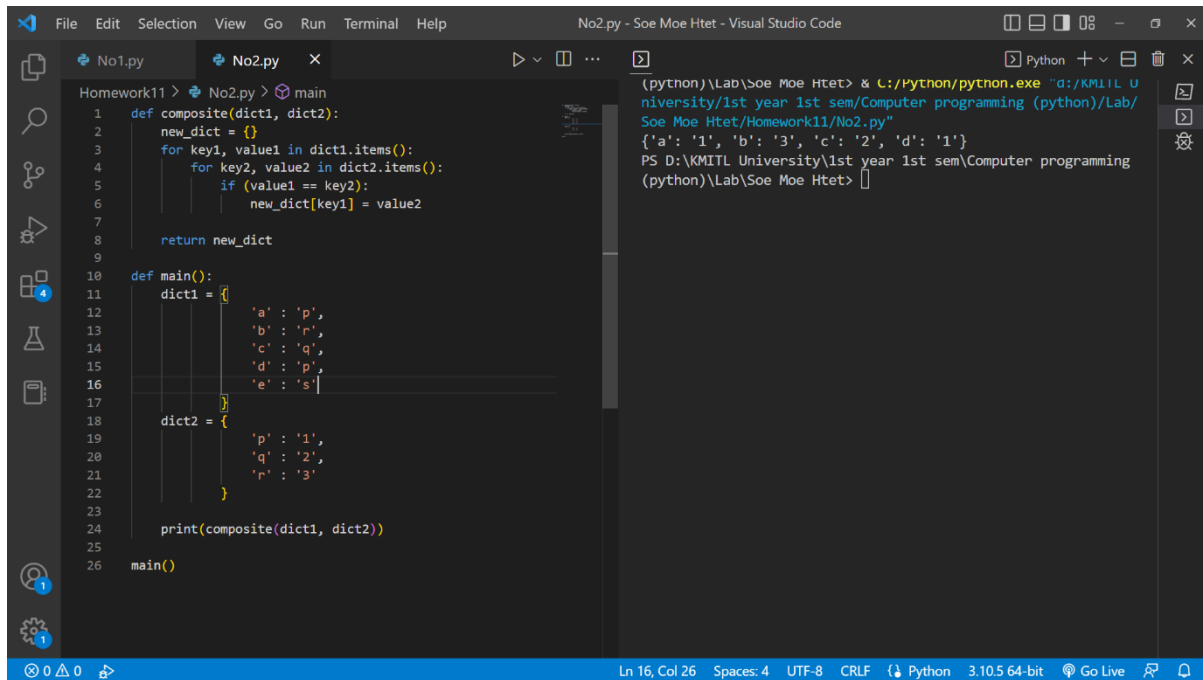
    short_form = textese(text)
    print(short_form)

    normal_form = untextese(short_form)
    print(normal_form)
main()

```

No.2

Result:



The screenshot shows the Visual Studio Code interface. The editor displays a Python file named 'No2.py' with the following code:

```
def composite(dict1, dict2):
    new_dict = {}
    for key1, value1 in dict1.items():
        for key2, value2 in dict2.items():
            if (value1 == key2):
                new_dict[key1] = value2
    return new_dict

def main():
    dict1 = {
        'a': 'p',
        'b': 'r',
        'c': 'q',
        'd': 'p',
        'e': 's'
    }
    dict2 = {
        'p': '1',
        'q': '2',
        'r': '3'
    }
    print(composite(dict1, dict2))

main()
```

The terminal on the right shows the command to run the script and its output:

```
(python)\Lab\Soe Moe Htet> & C:/Python/python.exe "d:/KMIL U
niversity/1st year 1st sem/Computer programming (python)/Lab/
Soe Moe Htet/Homework11/No2.py"
{'a': '1', 'b': '3', 'c': '2', 'd': '1'}
PS D:\KMIL University\1st year 1st sem\Computer programming
(python)\Lab\Soe Moe Htet>
```

Code:

```
def composite(dict1, dict2):
    new_dict = {}
    for key1, value1 in dict1.items():
        for key2, value2 in dict2.items():
            if (value1 == key2):
                new_dict[key1] = value2

    return new_dict

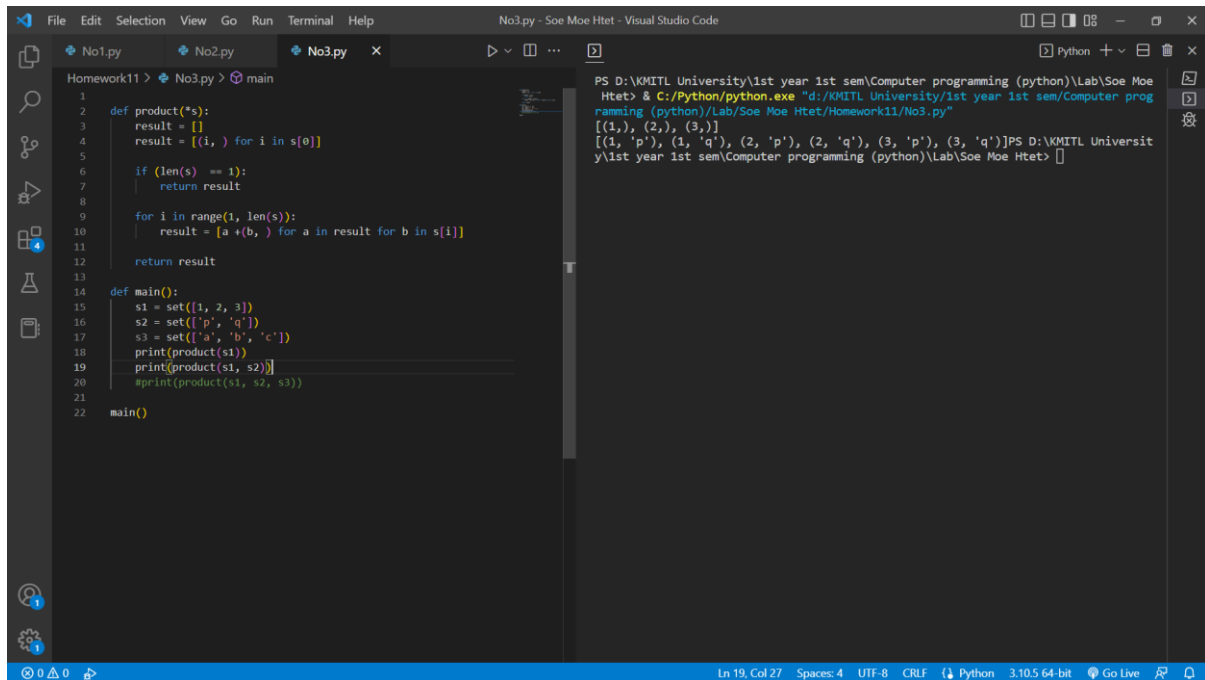
def main():
    dict1 = {
        'a': 'p',
        'b': 'r',
        'c': 'q',
        'd': 'p',
        'e': 's'
    }
    dict2 = {
        'p': '1',
        'q': '2',
        'r': '3'
    }

    print(composite(dict1, dict2))

main()
```

No.3

Result:



```
File Edit Selection View Go Run Terminal Help
No3.py - Soe Moe Htet - Visual Studio Code

No1.py No2.py No3.py x
Homework11 > No3.py > main
1
2 def product(*s):
3     result = []
4     result = [(i, ) for i in s[0]]
5
6     if (len(s) == 1):
7         return result
8
9     for i in range(1, len(s)):
10        result = [a +(b, ) for a in result for b in s[i]]
11
12    return result
13
14 def main():
15    s1 = set([1, 2, 3])
16    s2 = set(['p', 'q'])
17    s3 = set(['a', 'b', 'c'])
18    print(product(s1))
19    print(product(s1, s2))
20    #print(product(s1, s2, s3))
21
22    main()

PS D:\KMUTL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet> & C:/Python/python.exe "d:/KMUTL University/1st year 1st sem/Computer programming (python)/Lab/Soe Moe Htet/Homework11/No3.py"
[(1, ), (2, ), (3, )]
[(1, 'p'), (1, 'q'), (2, 'p'), (2, 'q'), (3, 'p'), (3, 'q')]
[(1, 'p'), (1, 'q'), (2, 'p'), (2, 'q'), (3, 'p'), (3, 'q')]PS D:\KMUTL University\1st year 1st sem\Computer programming (python)\Lab\Soe Moe Htet>

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```

Code:

```
def product(*s):
    result = []
    result = [(i, ) for i in s[0]]

    if (len(s) == 1):
        return result

    for i in range(1, len(s)):
        result = [a +(b, ) for a in result for b in s[i]]

    return result

def main():
    s1 = set([1, 2, 3])
    s2 = set(['p', 'q'])
    s3 = set(['a', 'b', 'c'])
    print(product(s1))
    print(product(s1, s2))
    #print(product(s1, s2, s3))

main()
```