Python from Scratch Weekly Assignment

WEEK2: Assignment on Python String

Problem Statements:
    Software Development Team needs to assign a python Developer to develop a python application using Login password Validation, with the following Primary conditions for password validation:

- 1.Minimum 8 characters.
- 2.The alphabet must be between [a-z]
- 3.At least one alphabet should be of Upper Case [A-Z]
- 4.At least 1 number or digit between [0-9]
- 5.At least 1 character from [_ or @ or $]

Sample Input and Output:

Input : R@m@_l0rtu9e$
Output : Valid Password

Input : Raja_fortune$
Output : Invalid Password
Explanation: Number is missing

Input : Raja#fortu9e
Output : Invalid Password
Explanation: Must consist from _ or @ or $

CODE 1:

```python
In [ ]:  password=input("Enter Your password":)
         s=password
         # validate password using given condition
         # Hint: use string operator/ operation
         #TO DO: write your code here
         l, u, p, d = 0, 0, 0, 0
         s = "R@m@_f0rtu9e$"
         capitalalphabets="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
         smallalphabets="abcdefghijklmnopqrstuvwxyz"
         specialchar="$@_"
         digits="0123456789"
         if (len(s) >= 8):
             for i in s:

                         # counting lowercase alphabets
                 if (i in smallalphabets):
                 l+=1

                         # counting uppercase alphabets
                     if (i in capitalalphabets):
                             u+=1

                     # counting digits
                     if (i in digits):
                             d+=1

                     # counting the mentioned special characters
                     if(i in specialchar):
                             p+=1
         if (l>=1 and u>=1 and p>=1 and d>=1 and l+p+u+d==len(s)):
                 print("Valid Password")
         else:
                 print("Invalid Password")
```

```python
In [19]:  import string
```

```python
In [20]:  string.ascii_uppercase
```

```
Out[20]:  'ABCDEFGHIJKLMNOPQRSTUVWXYZ'
```

```python
In [ ]:
```

Problem 2:

Data scientist getting time data as in string format from real-time IoT Machines like, time = '20:26:45',
Actuly they want to anaysis time data with hours , miniutes and seconds separatly.
How will you help them to seperate this string data into the following output

hours:20
miniutes:26
seconds:45

CODE 2:

```python
In [21]:  time = '20:26:45'
          #TO DO: write your code here
          time=time.split(":")
          print(f"hours:{time[0]}\nminiutes:{time[1]}\nSeconds:{time[2]}")

          hours:20
          miniutes:26
          Seconds:45
```

```python
In [18]:  hr,mi,se=tuple(('20:26:45'.split(":")))
          print("hours:",hr,"miniutes:",mi,"seconds:",se)

          hours: 20 miniutes: 26 seconds: 45
```

```python
In [7]:  time.split(":")

         ---------------------------------------------------------------------------
         AttributeError                            Traceback (most recent call last)
         Input In [7], in <cell line: 1>()
         ----> 1 time.split(":")

         AttributeError: 'list' object has no attribute 'split'
```

Problem 3:

Write a Python program to search a specific word in a string.

Input:
Enter a String: I am a python programmer
Enter a word to search: python

Expected output
python exists in string

CODE 3:

```python
In [ ]:  str1=input("Enter a String:")
         #TO DO : write your code here
```

Problem 4:

Write a python program to remove duplicates in a string.

Input: pythonlobby
Expected output
Result is: p y t h o n l b

CODE 4:

```python
In [ ]:  str1=input("Enter a String:")
         #TO DO : write your code here
```