**Challenge-1:**

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| **Write a python program, which will find all such numbers between 1000 and 3000 (both included) such that each digit of the number is an even number.** |
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**The numbers obtained should be printed in a comma-separated sequence on a single line.**

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**Solution:**

**values=[]  
for x in range(1000,3000):  
    s=str(x)  
   if (int(s[0]) %2 == 0) and (int(s[1]) %2 == 0) and (int(s[2]) %2 == 0) and (int(s[3]) %2 ==0):  
        values.append(s)  
print "-".join(values)**

**Challenge-2:**

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| **Write a python program that computes the value of a+aa+aaa+aaaa with a given digit as the value of a.** |
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| **Suppose the following input is supplied to the program:** |
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|  |
| --- |
| **9** |
|  |

|  |
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| **Then, the output should be:** |
|  |

**11106**

**Solution:**

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| **value input("Enter value: ")** |
|  |  |
| **n1 = value \* 1** |  |
| **n2 = value \* 2** |  |
| **n3 = value \* 3** |  |
| **n4 = value \* 4** |  |
|  |  |
| **total = int(n1) + int(n2) + int(n3) +int(n4)** |  |
| **print(total)** |  |

**Challenge-3:**

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| **A website requires the users to input username and password to register. Write a python program to check the validity of password input by users.** |
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| **Following are the criteria for checking the password:** |
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| **1. At least 1 letter between [a-z]** |
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| --- |
| **2. At least 1 number between [0-9]** |
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|  |
| --- |
| **1. At least 1 letter between [A-Z]** |
|  |

|  |
| --- |
| **3. At least 1 character from [$#@]** |
|  |

|  |
| --- |
| **4. Minimum length of transaction password: 6** |
|  |

|  |
| --- |
| **5. Maximum length of transaction password: 12** |
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| **Your program should accept a sequence of comma separated passwords and will check them according to the above criteria. Passwords that match the criteria are to be printed, each separated by a comma.** |
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| **Example** |
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| **If the following passwords are given as input to the program:** |
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|  |
| --- |
| **ABd1234@1,a F1#,2w3E\*,2We3345** |
|  |

|  |
| --- |
| **Then, the output of the program should be:** |
|  |

**ABd1234@1**

**Solution:**

**import re**

**password = "R@m@\_f0rtu9e$"**

**flag = 0**

**while True:**

**if (len(password)<8):**

**flag = -1**

**break**

**elif not re.search("[a-z]", password):**

**flag = -1**

**break**

**elif not re.search("[A-Z]", password):**

**flag = -1**

**break**

**elif not re.search("[0-9]", password):**

**flag = -1**

**break**

**elif not re.search("[\_@$]", password):**

**flag = -1**

**break**

**elif re.search("\s", password):**

**flag = -1**

**break**

**else:**

**flag = 0**

**print("Valid Password")**

**break**

**if flag ==-1:**

**print("Not a Valid Password")**