**Problem Statement:** Check whether given string is a strong password or not. If strong password then print 1 else print 0

Strong Password Conditions:

It must contain at least one number, one uppercase alphabet, one lowercase alphabet, one special character and the string length must be at least 6

In this problem, we have to check given string is a strong password satisfying above conditions

**Example:** 1!Aa is a weak password because it contains at least one number, one special character, one lowercase and one uppercase alphabet but the length is less than 6

|  |  |
| --- | --- |
| Expected Input | Expected Output |
| asdfgh1A  A1w%1dkq  We2%  AbcD!3&  1$aD | 0  1  0  1  0 |

**Pseudo Code**

1. Enter a string
2. Convert str into characters and store in str
3. Calculate length of str and store in len
4. Take i=1, u=0, l=0, n=0, s=0
5. If len>=6
   1. If i<=len then
      1. If str[i]>=’A’ and str[i]<=’Z’
         1. Set u=1
      2. If str[i]>=’a’ and str[i]<=’z’
         1. Set l=1
      3. If str[i]>=’0’
         1. Set n=1
      4. If str[i]="!" || str[i]="@" || str[i]= "#" || str[i]="$" || str[i]="%" || str[i]="^" || str[i]="&" || str[i]="\*" || str[i]="(" || str[i]=")" || str[i]="-" || str[i]="+"
         1. Set s=1
   2. Increment i and go to 5.1

6.If u=1 and l=1 and n=1 and s=1

6.1 Print 1

7.Else Print 0

**Trace Table**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| str | len | i=1 | u=0 | l=0 | n=0 | s=0 | len>=6 | i<=len | str[i]>=’A’ and str[i]<=’Z’ | u=1 | str[i]>=’a’ and str[i]<=’z’ | l=1 | str[i]>= '0' | str[i]="!" || str[i]="@" || str[i]= "#" || str[i]="$" || str[i]="%" || str[i]="^" || str[i]="&" || str[i]="\*" || str[i]="(" || str[i]=")" || str[i]="-" || str[i]="+" | s=1 | i=i+1 | u=1 && l=1 && n=1 && s=1 | print 1 | print 0 |
| We2% | 4 | 1 | 0 | 0 | 0 | 0 | FALSE |  |  |  |  |  |  |  |  |  |  |  | 0 |
| AbcD!3& | 7 | 1 | 0 | 0 | 0 | 0 | TRUE | TRUE | TRUE | 1 | FALSE |  | FALSE | FALSE |  | 2 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | FALSE |  | TRUE | 1 | FALSE | FALSE |  | 3 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | FALSE |  | TRUE | 1 | FALSE | FALSE |  | 4 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | TRUE | 1 | FALSE |  | FALSE | FALSE |  | 5 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | FALSE |  | FALSE |  | FALSE | TRUE | 1 | 6 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | FALSE |  | FALSE |  | TRUE | FALSE |  | 7 |  |  |  |
|  |  |  |  |  |  |  |  | TRUE | FALSE |  | FALSE |  | FALSE | TRUE | 1 | 8 |  |  |  |
|  |  |  |  |  |  |  |  | FALSE |  |  |  |  |  |  |  |  | TRUE | 1 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Expected Input | Expected Output | Actual Output | Test Result |
| asdfgh1A  A1w%1dkq  We2%  AbcD!3&  1$aD | 0  1  0  1  0 | 0  1  0  1  0 |  |

**Final Result**

**Expected Inputs and Outputs**

