Backtracking

ALGORITHMICS

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Password generator

➢ Some of the 10 most used passwords today: 123456, password, qwerty ☹

➢ Let's help with it and create a password generator with the following features:
- The password should have n characters
- Two vowels can appear one after the other only if they are different
- There cannot be three vowels or three consonants consecutively in a password
- There is a set of consonant pairs that may appear in a password
- The last characters should be punctuation marks or numbers (non-alphabetic characters)

Input and Output

➢ **Example of input:** `PasswordGenerator 15 2 9 consonant_pairs.txt`

➢ **Where:**
- The first number is the total number of characters of the password
- The second number is the number of non-alphabetic characters with which the password ends
- The third number is the number of passwords we want to generate

➢ **Example of output:**
```
1: hofiveyagajac05
2: lojuedimumeva_9
3: raiqoloaradla0_
4: zowuveclifoaf.7
5: siziovainoque48
6: fuyevuizeyeul7,
7: aviqoluqixenu00
8: pionuvocavion-,
9: floujatuflelu33
```

backtracking()?
valid()?