

Q1

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pattern = r"^[A-Z]+((['. -])?[a-zA-Z]*)+ [A-Z]+((['. -])?[a-zA-Z]*)*$"
```

Step1: First name and Family name often start with capitalize word [A-Z], and they often separate by space

Step2: add possible characters [' . -]) which can show up both in first name and family name

Describe in what situations your solution will fail:

- This solution will fail if the name has a number in it like Stev3 Smith
- Or if the name has a special character in it like Björk Guðmundsdóttir
- Or other originally foreigner name like Mathias d'Arras or d'Are to Beaware
- Particular long or short words which is not represent a name ,so we want to limit the length of each part of pattern. {2,10}, maybe at least 2 characters and at most 10.

Q2

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pattern = r".*[aeiou]+(^th)*ing$"
```

Step1: if input is a text, split each line into words and check if each word is a gerund.

Step2: filter gerunds using 'verb' + 'ing', verb usually contain [aeiou]

Step3: filter out special occasions like thing/something/anything/nothing

Describe in what situations your solution will fail.

- non-existence of a related verb: evening, darling, ceiling etc.
- noun of related verb: painting (meaning "image made with paint"), failing etc.