

### ASSIGNMENT 3

#### PATTERN MATCHING VIA REGULAR EXPRESSIONS IN PYTHON

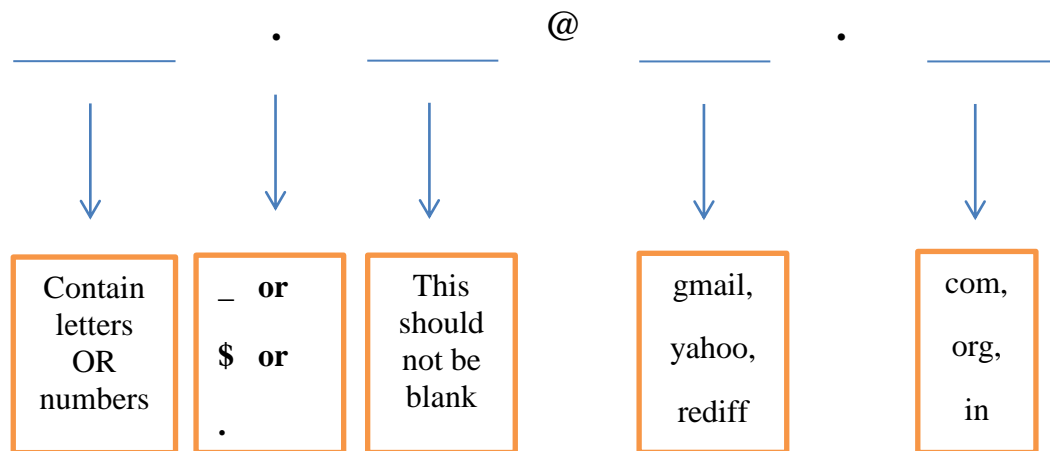
- Q1 Write a regular expression code in Python that matches the full name of someone whose last name is Kapoor. [3M]  
You can assume that the first name that comes before it will always be one word that begins with a capital letter. The regex must match the following:
- 'Santosh Kapoor '
  - 'Anisha Kapoor '
  - 'Rohan Kapoor '
- but not the following:
- 'santosh Kapoor ' (where the first name is not capitalized)
  - 'Mr. Kapoor ' (where the preceding word has a nonletter character)
  - ' Kapoor ' (which has no first name)
  - 'Santosh kapoor ' (where Kapoor is not capitalized)
- Q2 Design a Python program with single regular expression which will accept DATE as an input from user in any of the below format: [2M]
- DD/MM/YYYY
  - DD/MM/YY
  - DD-MM-YYYY
  - DD-MM-YY
- (NOTE: The date entered by user should be in the above format only. Formats like DD/MM or DD-MM should not be allowed.)

Q3 Design a Python program with regular expressions which will accept email-id and password from the user. [5M]

Validations for email-id:

- i. Should begin with letter.
- ii. On the LHS of @, underscore (\_) and dot (.) is valid but there should be some letters in between them.
- iii. There should not be dot (.) immediately next to @.

Sample Structure of email-id:



Validations for Password:

- i. Password should begin with single capital letter followed by three to four small letters.
- ii. Post small letters, it should only accept special symbols like @, \$, \_
- iii. Followed by two to three digits.

Valid password:

Abcd@123

Invalid password:

Acbs5

abcd<>as1