Sheet 1
Regular Expressions

1. Write regular expression to describe each of the following languages (take care of the false positive and false negative errors)

   1) {still, till, ill}
   2) {jet, pet, net, wet}
   3) {heat, cheat, meat, seat, great}
   4) {night, knight}
   5) {Nice, Niece}
   6) {fin, fan, fun, fen}
   7) {ten, tend, often, extend}
   8) {ac, abc, abbc, abbbc, …}
   9) {baaa!, baaaa!, baaaaa!, … }
   10) {write, rewrite, writes, rewritable}
   11) {0, …, 10}
   12) {1^{st}, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th }
   13) The set of all lower-case alphabetic strings ending with 'ing', the string should have at least 4 characters.
   14) The set of all lower-case alphabetic strings with letter b as a second letter from right.
   15) The set of valid identifiers; an identifier begins with a letter (lower or upper case), then any sequence of letters or digits and possibly.
   16) The set of all words with length greater than or equal 4 and begins with one capital letter and then having any sequence of lower-case letters.

2. Give a regular expression to match a valid E-mail address (with only com and net as a top-level domain).

3. Write a regular expression to match a valid date of the form 10-02-2024, 10/02/2024, 10/02/24, or 02/10 2024 in a given text.

4. Write a regular expression to match a valid date of the form 10 Feb 2024 or 10 February 2024 in a given text.