Define a class named **Document** that contains an instance variable of type String named *text* that stores any textual content for the document. Create a method named toString that returns the text field and also include a method to set this value.

Next, define a class for **Email** that is derived from Document and includes instance variables for the sender , recipient , and title of an email message. The body of the email message should be stored in the inherited variable text . Redefine the toString method to concatenate all text fields.

Similarly, define a class for **File** that is derived from Document and includes an instance variable for the pathname . The textual contents of the file should be stored in the inherited variable text . Redefine the toString method to concatenate all text fields.

Note:

The system described above should contain a method ‘findKeyword(String)’ that should be able to find a keyword in the text of a Document , Email and File. You need to analyze the structure of this method and decide the class/classes where it should be placed. Include the implementation of this method and then submit your code.

Call this method for file and email objects from runner