email.py  
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#!/usr/bin/env python  
  
import re  
  
emails = open("input.txt","r") #opens the file to analyze  
results = open("op.txt","w") #creates new file for search results  
  
resultsList = []  
  
for line in emails:  
    if "From - " in line: #recgonizes the beginning of a email message and adds a linebreak  
        newMessage = re.findall(r'\w\w\w\s\w\w\w.\*', line)  
        if newMessage:  
            resultsList.append("\n\t\*\*\* EMAIL HEADER DETAILS \*\*\*\n")  
                 
    if "From: " in line:  
        address = re.findall(r'[\w.-]+@[\w.-]+', line)  
        if address:  
            resultsList.append("\n\nFrom : ")  
            resultsList.append(address)  
            resultsList.append(";")  
          
    if "To: " in line:  
        if "Delivered-To:" not in line: #avoids confusion with 'Delivered-To:' tag  
            address = re.findall(r'[\w.-]+@[\w.-]+', line)  
            if address:  
                resultsList.append("\n\nTo : ")  
                  
                for person in address:  
                    resultsList.append(person)  
                    resultsList.append("; ")  
                  
    if "Bcc: " in line:  
        address = re.findall(r'[\w.-]+@[\w.-]+', line)  
        if address:  
            resultsList.append("\n\nBcc : ")  
            resultsList.append(address)  
            resultsList.append(";")  
          
    if "Date: " in line:  
        address = re.findall(r'\w\w\w\,.\*', line)  
        if address:       
            resultsList.append("\n\nDate : ")  
            resultsList.append(address)  
            resultsList.append(";")  
          
    if "Subject: " in line:  
        address = re.findall(r'[\w\s.-]+[\w.-]+', line)  
        if address:  
            resultsList.append("\n\nSub : ")  
            resultsList.append(address)  
         
for result in resultsList:  
    results.writelines(result)  
  
  
emails.close()  
results.close()

Input .Txt

From - Tue July 08 11:13:12 2014  
  
X-Mozilla-Status: 0001  
  
X-Mozilla-Status2: 00000000  
  
Delivered-To: barde\_sir@gmail.com  
  
Received: by 192.48.48.3 with SMTP id v3cs417003nfv;  
  
         08 July 2014 11:13:43 -0800 (PST)  
  
Received: by 192.65.211.13 with SMTP id n13mr5741660qbq.1168884841872;  
  
         08 July 2014 11:13:43 -0800 (PST)  
  
Return-Path: <navinwaghwani@gmail.com>  
  
Received: from bay0-omc3-s21.bay0.gmail.com (bay0-omc3-s21.bay0.gmail.com [65.54.246.221])  
  
        by mx.google.com with ESMTP id e13si6347910qbe.2007.01.15.10.13.58;  
  
        Tue, 08 July 2014 11:13:43 -0800 (PST)  
  
Received-SPF: pass (google.com: domain of nobody@gmail.com designates 65.54.246.221 as permitted sender)  
  
Received: from gmail.com ([65.54.250.22]) by bay0-omc3-s21.bay0.gmail.com with Microsoft SMTPSVC(6.0.3790.2668);  
  
         Tue, 08 July 2014 11:13:43 -0800  
  
Received: from mail pickup service by gmail.com with Microsoft SMTPSVC;  
  
         Tue, 08 July 2014 11:13:43 -0800  
  
Message-ID: <BAY115-F12E4E575FF2272CF577605A1B50@phx.gbl>  
  
Received: from 65.54.250.200 by by115fd.bay115.gmail.msn.com with HTTP;  
  
        Tue, 08 July 2014 11:13:43 GMT  
  
X-Originating-IP: [192.122.47.165]  
  
X-Originating-Email: [navinwaghwani@gmail.com]  
  
X-Sender: navinwaghwani@gmail.com  
  
From: =?iso-8859-1?B?UGF1bGEgTWFy7WEgTGlkaWEgRmxvcmVuemE=?=<navinwaghwani@gmail.com>  
  
To: receiver1@gmail.com, receiver2@gmail.com, receiver3@gmail.com  
  
Bcc: receiver4@gmail.com  
  
Subject: To analyze email header in Python  
  
Date: Tue, 08 July 2014 11:13:43 +0000  
  
Mime-Version: 1.0  
  
Content-Type: multipart/mixed; boundary="----=\_NextPart\_000\_d98\_1c4f\_3aa9"  
  
X-OriginalArrivalTime: 08 July 2014 11:13:43 (UTC) FILETIME=[E68D4740:01C738D0]  
  
Return-Path: navinwaghwani@gmail.com  
  
  
op.txt  
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    \*\*\* EMAIL HEADER DETAILS \*\*\*  
  
  
From : pranavlawate@gmail.com;  
  
To : receiver1@gmail.com; receiver2@gmail.com; receiver3@gmail.com;  
  
Bcc : receiver4@gmail.com;  
  
Sub : Subject To analyze email header in Python  
  
Date : Tue, 08 July 2014 11:13:43 +0000;