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Batch: S4

Class: BE-IV

Course: Cyber Security & Digital Forensics (CSDF)

Assignment No. 01

i. Code -

import email

```
f = open('/Users/sam/Workspace/Academic Assignments/CSDF/lab 1/email.eml')
msg = email.message_from_file(f)
f.close()
```

```
parser = email.parser.HeaderParser()
headers = parser.parsestr(msg.as_string())
```

```
print('Headers Found: ')
for i in headers.items():
    print(i)
x = headers.items()[6][-1]
print(f'SPF and DKIM is {x}')
```

ii. Output -

```
Headers Found:
('Delivered-To', 'abc@gmail.com')
('Received', 'by 2002:a98:b053:0:b0:1d8:421d:b750 with SMTP id i19csp96755eij; Wed, 9 Aug 2023 11:08:55 -0700 (PDT)')
('X-Google-Smtp-Source', 'AGHT+IGfGR+rIAzT7fj8m9rU+uf01txFmXC/005tTN4n+qypnBVCwbWh1638VKM1hKTzbE70P6ky')
('X-Received', 'by 2002:a17:90b:152:b0:267:75ce:f6d9 with SMTP id em18-20020a1709b0b015200b0026775cef6d9mr59993pjb.3.1691604535528; Wed, 09 Aug 2023 11:08:55 -0700 (PDT)')
)
('ARC-Seal', 'i=1; a=rsa-sha256; t=1691604535; cv=none; d=google.com; s=arc-20160816; b=yYzZFxenrpxQjNp5e7Xq5NU9UAkeDcwYITmbGu0tkqTtwgSp5wj4nouM0fxJAvKD8l\n
rpInoZ47XCb+rNcn87LdSqm0YBRP0rQ3W3L22104PjD877hJpcGyAVGCjScGx+n6+L\n DZdfkeRuxJY5oCnbDwdvY68tdbZnStEwJjuFB0rGrNUJgy32BQsPlay60ThauqjubgR6\n oU18iCYZVhoLYXB
YUjjq1XEmUov1147JzQL9jc0m3N+o9dnXf813+DgAwo60X7P2We\n P/Yyw+6oW8TyLWNZ55IXCxm1IICy4IPuJd17UB251a89/gtn1J92twOKE3jBxbk+k4U4\n PJIA==')
('ARC-Message-Signature', 'i=1; a=rsa-sha256; c=relaxed/relaxed; d=google.com; s=arc-20160816; h=feedback-id:mime-version:to:from:subject:date:message-id\n
-signature:dkim-signature; bh=NWUhcfeH1QAWUjAuMongPZc4yXQJtfgdr+KSeKtMiI=; fh=clwg06GJ06ldKvY5pnWs9zdVxgfEm7MPS8mvrwEqow=; b=jjHE9soqWyQ/2bZvltASn1L+
h9sKEqFqiv8CCB8F03oL3C0WLD5vUADZx/WfNBBDs\n CJTECbyM8cnRg/4WTtKytbnzZe2mZowLeg10i0pxw6qM4Q8EKsVbaFS0ouGd5yXSmWU6\n +dIfQndSUMYuvmkKA+qhQ+CpmaefZ06h4bQPBSz47AcQI
2WfbMGRALNsyXbaSKdichn\n jAdi1fiHu6V6dExkXU2EAGRmIe7MeUG2bNPN97jvVDBG3V4nimw97p3haohc3Cce0S\n i7QAD5L0yh/nle1PUBItf7n2IzgotHvGnBc7UR45z4Wm/1DYxQxm54itxTqN1p5U9S
jb\n QxnQ==')
('ARC-Authentication-Results', 'i=1; mx.google.com; dkim=pass header.i=@unstop.news header.s=m6r7wr6rkaeeb5qtwyxt7q4e6ybikp header.b=h5d9jKX0; dkim=pass header.
i=@amazonses.com header.s=rIntogby6xsxlfvnyxwvhttakdsqto header.b=Jx1TN6qd; spf=pass (google.com: domain of 01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.
unstop.news designates 76.223.176.211 as permitted sender) smtp.mailfrom=01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news; dmarc=pa
ss (p=QUARANTINE sp=QUARANTINE dis=NONE) header.from=unstop.news')
('Return-Path', '<01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news>')
('Received', 'from c176-211.smtp-out.ap-south-1.amazonses.com (c176-211.smtp-out.ap-south-1.amazonses.com. [76.223.176.211])\n
98a89db000268273fffc0si1933772pjo.99.2023.08.09.11.08.54\n for <atharvabhide91@gmail.com>\n (version=TLS1_2 cipher=ECOE-ECDSA-AES128-GCM-SHA256 bits=128/128);\n
Wed, 09 Aug 2023 11:08:55 -0700 (PDT)')
('Received-SPF', 'pass (google.com: domain of 01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news designates 76.223.176.211 as permitted sender) clien
t-ip=76.223.176.211;')
('Authentication-Results', 'mx.google.com; dkim=pass header.i=@unstop.news header.s=m6r7wr6rkaeeb5qtwyxt7q4e6ybikp header.b=h5d9jKX0; dkim=pass header.i=@amazon
ses.com header.s=rIntogby6xsxlfvnyxwvhttakdsqto header.b=Jx1TN6qd; spf=pass (google.com: domain of 01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.u
nstop.news designates 76.223.176.211 as permitted sender) smtp.mailfrom=01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news; dmarc=pass (p=QUA
RANTINE sp=QUARANTINE dis=NONE) header.from=unstop.news')
('DKIM-Signature', 'v=1; a=rsa-sha256; q=dns/txt; c=relaxed/simple; \n\t=s=6r7wr6rkaeeb5qtwyxt7q4e6ybikp; d=unstop.news; t=1691604533; \n\t=Message-ID:Date:Subject:From:To:MIME-
Version:Content-Type; \n\tbh=h+Uupoq71/Lqd0efXB5hkJCwdBfYXWZD0hFjFBWw+9I=; \n\tb=h5d9jKX0aW7XyFDdu61xf0J1NrysHBazRzV9FSBbz9SZ84HhAtEzm3W/0LkRpvXw\n\t0ip8Um1P4yby3n1zgy8J0P6qXhbnWVT
7qfV2EeCJ8hC0A1jakyNSQhc6KDlq0QsVf\n\t+tmj7roczIfiDxsS6Qa7c3QGJichl/+jVPtkGyYlGAB5UPRw52ThvwG1HoFSAAn4+65Jc\n\t0cQcA/jG6eYyYgnYXCaULb669NVE3dLV+y+009yNNkKZbn+/bFY0q8Fcn8zesBx4b47
\n\tIkFA+ChwOaL8Pv18QjTnTD0oReI+btCPlwHnzPURNxAVbpYKf4acjzt0TR9w6GuN1BC\n\ttUFCHZmBz==')
('DKIM-Signature', 'v=1; a=rsa-sha256; q=dns/txt; c=relaxed/simple; \n\t=s=rIntogby6xsxlfvnyxwvhttakdsqto; d=amazonses.com; t=1691604533; \n\t=Message-ID:Date:Subject:From:To:MIM
E-Version:Content-Type:Feedback-ID; \n\tbh=h+Uupoq71/Lqd0efXB5hkJCwdBfYXWZD0hFjFBWw+9I=; \n\tb=Jx1TN6qd2y/HTT7Ra9/BuVeb2MR3lTyvzg6-7y5qlqahHSeGfXz0uGGGofIXCpR9\n\ttThDoRIU2V/Q/SECwc
pQ4X5rT3XVlhuayjK8y4aXkdgJ3LutbKkVXX8iz7MDL5ZQPQ4x\n\t1HcYzUbQbqXCdujQeUmXcVFMJ7RHm82rwpK0PR7=')
('Message-ID', '<01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@ap-south-1.amazonses.com>')
('Date', 'Wed, 9 Aug 2023 18:08:53 +0000')
('Subject', 'Wow, look at your certificate | Flipkart GRiD 5.0 - Software Development Track')
('From', 'Unstop Events <updates@unstop.news>')
('To', 'atharvabhide91@gmail.com')
('MIME-Version', '1.0')
('Content-Type', 'multipart/alternative; \n\tboundary="_swift_1691604533_cb900a76d798c113ff786ad971786567_"')
('Feedback-ID', '1.ap-south-1.vLaSpdbZtZ+0zaNQSbwc0bbDg5bpfORXW9fjYUQ=AmazonSES')
('X-SES-Outgoing', '2023.08.09-76.223.176.211')
SPF and DKIM is i=1; mx.google.com; dkim=pass header.i=@unstop.news header.s=m6r7wr6rkaeeb5qtwyxt7q4e6ybikp header.b=h5d9jKX0; dkim=pass header.i=@amazonses.com header.s=rIntogby6xsxlfvnyxwvhttakdsqto header.b=Jx1TN6qd; spf=pass (google.com: domain of 01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news designates 76.223.176.211 as permitted sender) smtp.mailfro
m=01090189db7cc1a3-7c1874c1-a5f3-4173-878a-2f64afdb1946-000000@emails.unstop.news; dmarc=pass (p=QUARANTINE sp=QUARANTINE dis=NONE) header.from=unstop.news
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