email\_service

This function will read the messages sent from the predict\_service and send an email to the address stored in the environment variable gmail\_username.

# Dependencies

This function depends on the following packages:

* json
* os
* boto3
* smtplib

# Execution

AWS services provides the functionality to trigger notifications to different services like email or SMS via its Simple Notification Services (AWS SNS) by creating a topic (a group of services) and publishing to it. AWS SNS will send the message published to each of the services subscribed to that specific topic. The predict\_service publishes to the topic where this function is subscribed.

Upon execution, this function follows these steps:

1. Creates a SMTP protocol client
2. Logs in using **gmail\_username** and **gmail\_username** environment variables
3. Send email

## Example

* **predict\_service** will publish a message similar to this:

{  
 "Records": [  
 {  
 "EventSource": "aws:sns",  
 "EventVersion": "1.0",  
 "EventSubscriptionArn": "arn:aws:sns:us-east-1:245636212397:dlresult:b2a4ea7f-a427-41c3-8283-f27707aa0929",  
 "Sns": {  
 "Type": "Notification",  
 "MessageId": "3851a2b7-c171-5918-963a-f78a135502a0",  
 "TopicArn": "arn:aws:sns:us-east-1:245636212397:dlresult",  
 "Subject": "None",  
 "Message": {  
 "prediction": 6,  
 "filename": "2019-04-25\_2323-04.jpg"  
 },  
 "Timestamp": "2019-04-27T03:43:32.490Z",  
 "SignatureVersion": "1",  
 "Signature": "DxzOXWDeW7TaGPMmrnXjCDxzfUBB9q/su6FOY7BENXbzGFhnm1OthglqDxe1+oGlinD5mM87IoCBzNPN3Vu1lTNXJVoqTvBEwY8F0VwZknPZVXJT/uzsvE45YhR96GbNZimUBYMH7RGDKPh++5ONiPz2UOyzVukOJ2GiIMLIS+oe+i4h+4CiXjhSVXArJDeETkzfAd67s012qObR5ly37BQxyUXWkNaoA/umQorqwDVpvfftFsj7SVSuCbAhYzN4WhrIq63NwYzESi3YwfZ83PXw/abonzy1/9POAm+QMW3ttHyjk6bzcTCRYfe4Nu2uihYF9xYMvTc2ncT0LsMKsA==",  
 "SigningCertUrl": "https://sns.us-east-1.amazonaws.com/SimpleNotificationService-6aad65c2f9911b05cd53efda11f913f9.pem",  
 "UnsubscribeUrl": "https://sns.us-east-1.amazonaws.com/?Action=Unsubscribe&SubscriptionArn=arn:aws:sns:us-east-1:245636212397:dlresult:b2a4ea7f-a427-41c3-8283-f27707aa0929",  
 "MessageAttributes": {}  
 }  
 }  
]  
}

* sms\_service will read **predict** and **filename** from there
* It will send an email to the address stored in the environment variable **gmail\_username**

## Improvements for future sprints

* Create logic to filter when messages sent to email addresses
* Send emails only to a list of subscribers as opposed to a single address