

Lambda Function Python Code

```
import boto3
import csv

# Initialize the boto3 client
s3_client = boto3.client('s3')
ses_client = boto3.client('ses')

def lambda_handler(event, context):
    # Specify the S3 bucket name
    bucket_name = 'shreya-email-marketing'

    try:
        # Retrieve the CSV file from S3
        csv_file = s3_client.get_object(Bucket=bucket_name, Key='contacts.csv')
        lines = csv_file['Body'].read().decode('utf-8').splitlines()

        # Retrieve the HTML email template from S3
        email_template = s3_client.get_object(Bucket=bucket_name,
        Key='email_template.html')
        email_html = email_template['Body'].read().decode('utf-8')

        # Parse the CSV file
        contacts = csv.DictReader(lines)

        for contact in contacts:
            # Replace placeholders in the email template with contact information
            personalized_email = email_html.replace('{{FirstName}}',
            contact['FirstName'])

            # Send the email using SES
            response = ses_client.send_email(
                Source='you@yourdomainname.com', # Replace with verified "From"address
                Destination={'ToAddresses': [contact['Email']]},
                Message={
                    'Subject': {'Data': 'Your Weekly Mail!', 'Charset': 'UTF-8'},
                    'Body': {'Html': {'Data': personalized_email, 'Charset': 'UTF-8'}}
                }
            )
            print(f"Email sent to {contact['Email']}: Response {response}")
    except Exception as e:
        print(f"An error occurred: {e}")
```

Lambda Function Test Event

```
{
  "comment": "Generic test event for scheduled Lambda execution. The function does not
use this event data.",
  "test": true
}
```

IAM Policy for SES and S3 permissions

Update the ARN to use your S3 bucket

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetObject"
      ],
      "Resource": "arn:aws:s3:::shreya-email-marketing/*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "ses:SendEmail",
        "ses:SendRawEmail"
      ],
      "Resource": "*"
    }
  ]
}
```