```python
import json

import csv

import boto3

from io import StringIO


def lambda_handler(event, context):

    # Initialize the S3 client

    s3 = boto3.client('s3')


    # Retrieve the bucket and file name from the event triggered by S3

    bucket_name = event['Records'][0]['s3']['bucket']['name']

    json_key = event['Records'][0]['s3']['object']['key']


    # Get the JSON file from S3

    json_obj = s3.get_object(Bucket=bucket_name, Key=json_key)

    json_data = json_obj['Body'].read().decode('utf-8')


    # Parse the JSON data

    data = json.loads(json_data)


    # Prepare a CSV in memory (using StringIO)

    output_csv = StringIO()

    csv_writer = csv.writer(output_csv)


    # Write header (column names)

    if len(data) > 0:

        header = data[0].keys()
```

```python
        csv_writer.writerow(header)

    # Write rows (values)
    for item in data:
        csv_writer.writerow(item.values())

    # Reset cursor for writing to S3
    output_csv.seek(0)

    # Define the CSV output file name
    csv_key = json_key.replace('.json', '.csv')

    # Upload the CSV file to S3
    s3.put_object(Body=output_csv.getvalue(), Bucket=bucket_name, Key=csv_key)

    return {
        'statusCode': 200,
        'body': f'Successfully converted JSON to CSV: {csv_key}'
    }
```