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| ❖ Write a simple shell script to do certain tasks. Download logs directory[1] |
| 1) Write a script to obtain file names and sort it in alphabetical order. |
| 2) Write a script to merge same type files into one file. Eg 4 files named audit, http_access,wso2-esb, wso2carbon log |
| 3) Write a script to arrange the same type files into 4 seperate directories.(use above mentioned names) |
| |
| ❖ CSV file processing with Python script. |
| ❖ Write Python script to fulfil below requirements. Outpit.csv[2] |
| 4) Read output.csv file. |
| Then pick only entries that below conditions |
| 5) Employment Status should be FullTime |
| 6) Custpartdayleave should be No or Empty |
| 7) Convert each entry to a json payload and post data to a webhook url created from following site (https://webhook.site/) |

## Answers

1) ls | sort -n

2) cat audit.log* > audit_all.log

   cat http_access_management_console_* > http_access.log

   cat wso2carbon* > carbonwso2_all.log

   cat wso2-esb* > esbwso2.log

3) mkdir audit

   mv audit.log* ./audit/

```
mkdir http_access
mv http_access_management_console_* ./http_access/

mkdir carbonwso2_all
mv wso2carbon* ./carbonwso2_all/

mkdir esbwso2
mv wso2-esb* ./esbwso2
```

4) gedit reader.py

```
# This is the reader.py file
import csv

with open('output.csv', newline='') as myFile:
        reader = csv.reader(myFile)
        for row in reader:
            print(row)
```

python3 reader.py

5) content of the reader.py file should be change like this

```
import csv

with open('output.csv', newline='') as myFile:
    reader = csv.reader(myFile)
    rows = [row for row in reader if row[3] == 'Fulltime']
    for row in rows:
        print(row)
```

6)

```
import csv

with open('output.csv', newline='') as myFile:
    reader = csv.reader(myFile)
    rows = [row for row in reader if row[17] == 'No' or row[17] == '']
    for row in rows:
        print(row)
```

**7) a) Convert each entry to a json payload**

```
import csv
import json

def csv_to_json(csvFilePath, jsonFilePath):
    jsonArray = []

    #read csv file
    with open(csvFilePath, encoding='utf-8') as csvf:
        #load csv file data using csv library's dictionary reader
        csvReader = csv.DictReader(csvf)

        #convert each csv row into python dict
        for row in csvReader:
            #add this python dict to json array
            jsonArray.append(row)

    #convert python jsonArray to JSON String and write to file
    with open(jsonFilePath, 'w', encoding='utf-8') as jsonf:
        jsonString = json.dumps(jsonArray, indent=4)
        jsonf.write(jsonString)

csvFilePath = r'output.csv'
jsonFilePath = r'output.json'
csv_to_json(csvFilePath, jsonFilePath)
```

b) post data to a webhook url created from following site (https://webhook.site/)

```
import json
import requests

# Set the webhook_url to the one provided by Slack when you create the webhook at https://my.slack.com/services/new/incoming-webhook/
webhook_url = 'https://webhook.site/6ad388fe-3eda-43ad-a3f9-0651573555c1'
slack_data = open('output.json',)

response = requests.post(
    webhook_url, data=slack_data,
    headers={'Content-Type': 'application/json'}
)
if response.status_code != 200:
    raise ValueError(
        'Request to slack returned an error %s, the response is:\n%s'
        % (response.status_code, response.text)
    )
```