

Question #1

Write a script in your language of choice to gather information about all of the instances in the current region. It should group them by the AMI's that are in use, with information about the AMI's and how many EC2 Instances are using them. Format the output as a JSON object as below.

Assume that AWS Credentials are available in the environment.

If AMI's are no longer available, null is an acceptable value for AMI specific items.

Do not assume that all AMI's are owned by the current account.

Assume the environment being queried is a large account with lots of instances and AMIs.

Output results to stdout.

Example Structure

```
1  {
2    "ami-0d5f069b7a75be450": {
3      "ImageDescription": "ubuntu-1804-encrypted-amd64-20190403",
4      "ImageName": "ubuntu-1804-encrypted-amd64-20190403",
5      "ImageLocation": "12345678901/ubuntu-1804-encrypted-amd64-20190403", 6
6      "OwnerId": "12345678901",
7      "InstanceIds": [
8        "i-04f241953cfe0066d",
9        "i-02439968b22cb6b8d"
10     ]
11   },
12   "ami-c0464db9": {
13     "ImageDescription": "Canonical, Ubuntu, 16.10, amd64 yakkety image buil 14
14     "ImageName": "ubuntu/images/hvm-ssd/ubuntu-yakkety-16.10-amd64-server-2 15
15     "ImageLocation": "099720109477/ubuntu/images/hvm-ssd/ubuntu-yakkety-16. 16
16     "OwnerId": "099720109477",
17     "InstanceIds": [
18       "i-063e73a673eda7892"
```

```
19         ]
20     },
21     "ami-1df0ac78": {
22         "ImageDescription": null,
23         "ImageName": null,
24         "ImageLocation": null,
25         "OwnerId": null,
26         "InstanceIds": [
27             "i-19be2ba7",
28             "i-6a7a49dd"
29         ]
30     }
31 }
```