(AWS)

↳ EC2 services
↳ AMI
↳ Instance type
↳ EBS (elastic Block Stors)

↳ Tags
Security Group
Api keys (SSH)

(EC2)

{Launching an Instance}

↓
Add Tag
↓
Select AMI → Paid (comes with soft.) / free / Trials
↓
Instant type → Configur for OS — 1CPU, 1GBRAM
↓
Key Pair (Create) } PEM
↓
Network setting
↓
Configur → Storage
↓
Adv. details (User data)
↳ Instance commands ("#!bin/bash)
:

For Checking AMI Subscri } (AWS Marketplace) List of AMI'S

"EC2 Instance" Creation

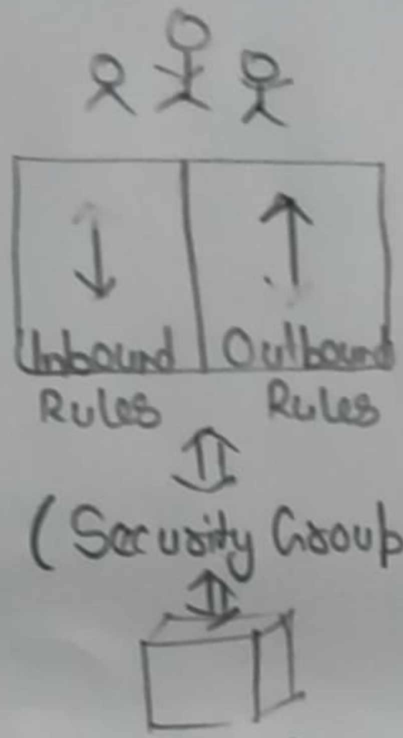
"Req. Gather"
⇓
"Key Pairs"
⇓
"Security Group"
⇓
"Instance Launch"

↳ OS, Ram Size, Storage
↓
Project
↓
Services/App
↓
Enviroment
↓
Login User/ (Tagging/Track)

[EC2]

Security Group { Act as Virtual firewall
Control traffic for one or more instances }

(Inbound)
Traffic coming from Outside on the Instan



(Traffic going to Outside)

(Stateful) i.e Same type of traffic in & Out.

(HTTP default → port 80)

On power off (Public IP change
private IP remain same)

↳ for static Public IP
↳ "Elastic IPs" to reserve public IP)
↳ After Allocation
(It will remain same)

t2.micro
(free tier)

System log { Check/Monitor
if any problem }
Booting logs

{ AWS CLI (Commond Line Interface) }

↳ Unified tool → To monge AWS services...

↳ from the Commond line...

IAM → Users > awscli > Create access key
[CLI enable]

[aws sts get-caller-identity]
↳ Userid & Account (using)

[aws ec2 describe-instances]

} (aws cli commonds "Chatgpt"

EBC (Elastic Block Storage)

Run EC2
Store data }

(Snapshot
↳ (Backup of a volume)

{ EBS types }

- General purpose (Best price & Best feat
- Cold Data HDD (file servers)
- Mogratic (Backups & Archives)
- Throughput Optimized HD (Data optimized) Worehous
- Provisioned IOPS (Large Database)

(EBS)

EBS volumes (Virtual Harddisk)

EBS Volume } MUST BE IN THE
Instance Zone } "SAME ZONES"

→ High performace

Req. Gathering
{ More than (>30 GB) In EBS
↳ (Out of free tier) }

{General purpose volume ⇒ free tier}

fdisk } Utility to Create/delete/
↓ Manage partitions in disk (Attached Volumes

mkfs } formatting
(ext → extention formating) } Same as
ext4, ext2..... } NTFS|FAT etc.
↓

mounting } mounting on Images
↳ Inserting data
⇒ Temp mount → When reboot it will be lost

{mount $\underbrace{\text{/dev/xvdf1}}_{\text{disk name}}$ $\underbrace{\text{/var/www/html/images/}}_{\text{mounting data direc}}$

lazy umount

Hashing {8/07/24}

↳ Intersection of two array

```
unordered_set <int> s(b,b+n);      } O(n)
for(int i=0; i<m, i++)             } O(m)
    if(s.find(a[i]) != s.end())
        cout<<a[i]<<" ";           O(m+n)
                                   ↳
```

↳ frequency.

```
      unordered_map<int, int> h;
O(n)  for(int i=0 ; i<n; i++)                  → 0(by default)
          h[arr[i]++];           →  {(50 , 1)}
            ↳(key)                  [Counting corresponding key value]
O(n)  for(auto e : h)
          cout << e.first << "  " << e.second << endl;
                  (key)               (value)
O(n) ✓
```

↳ (Union of two sorted arrays)

```
{
  unordered_set<int> h(a, a+m);
  for( int i= 0; i<n; i++)
    h.insert(b[i]);
  return h.size();
}
```

↳ {Pair with sum}

```
↳ [ unordered set <int> h;
    for (int i=0; i<n; i++) {
      if(h.find(sum - arr[i]) != h.end()) return true;
      else h.insert(arr[i]; return false;
    }
```