Documentation

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1. **README.md created with below:**

   https://github.com/kaisarhossain/Personal-GitHub-with-AWS-EBS-S3

   - Provided with architecture summary
   - Included step-by-step deployment instructions
   - Included backup and restore instructions

2. **docker-compose.yml**

```
version: "3.8"

services:
 gitea:
   image: gitea/gitea:latest
   container_name: gitea
   restart: always
   volumes:
     - /home/ubuntu/data:/data
   expose:
     - "3000"
   networks:
     - gitea-net

 nginx:
   image: nginx:latest
   container_name: gitea-nginx
   restart: always
   ports:
     - "80:80"
   volumes:
     - ./nginx/nginx.conf:/etc/nginx/conf.d/default.conf
   depends_on:
     - gitea
   networks:
     - gitea-net

networks:
 gitea-net:
   driver: bridge
```

3. backup.sh

```
#!/usr/bin/env bash
set -euo pipefail
TS="$(date -u +%Y%m%dT%H%M%SZ)"
ARCHIVE="/tmp/gitea-backup-${TS}.tar.gz"
sudo tar -czf "${ARCHIVE}" -C "$HOME/data" .
echo "Created backup archive: ${ARCHIVE}"
```

4. Evidence folder with screenshots

- lsblk showing the attached volume

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ sudo lsblk
NAME            MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
loop0             7:0      0 27.6M  1 loop /snap/amazon-ssm-agent/11797
loop1             7:1      0   74M  1 loop /snap/core22/2163
loop2             7:2      0 50.9M  1 loop /snap/snapd/25577
nvme0n1         259:0      0    8G  0 disk
├─nvme0n1p1     259:1      0    7G  0 part /
├─nvme0n1p14    259:2      0    4M  0 part
├─nvme0n1p15    259:3      0  106M  0 part /boot/efi
└─nvme0n1p16    259:4      0  913M  0 part /boot
nvme1n1         259:5      0   20G  0 disk /home/ubuntu/data

[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker inspect gitea --format '{{json .Mounts}}'
[{"Type":"bind","Source":"/home/ubuntu/data","Destination":"/data","Mode":"rw","RW":true,"Propagation":"rprivate"}]
 ubuntu@ip-172-31-0-90:~/gitea-stack$
```

- df -h showing your home data mount (/home/<user>/data)

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ df -h
Filesystem        Size  Used Avail Use% Mounted on
/dev/root         6.8G  2.9G  3.9G  43% /
tmpfs             458M     0  458M   0% /dev/shm
tmpfs             183M  1.1M  182M   1% /run
tmpfs             5.0M     0  5.0M   0% /run/lock
efivarfs          128K  3.6K  120K   3% /sys/firmware/efi/efivars
/dev/nvme0n1p16   881M   89M  730M  11% /boot
/dev/nvme0n1p15   105M  6.2M   99M   6% /boot/efi
/dev/nvme1n1       20G  2.3M   19G   1% /home/ubuntu/data
tmpfs              92M   12K   92M   1% /run/user/1000
```

- A Gitea repo visible in the web UI
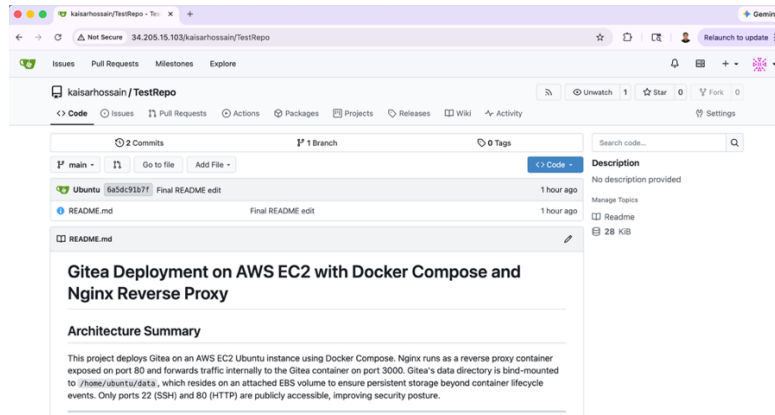
- aws s3 ls output showing uploaded backup object

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ aws s3 ls
 2026-02-27 23:32:38 s3-gitea-server
[ubuntu@ip-172-31-0-90:~/gitea-stack$ aws s3 cp "${ARCHIVE}" "${BUCKET}/"
upload: ../../../tmp/gitea-backup-20260227T231632Z.tar.gz to s3://s3-gitea-server/backups/gitea-backup-20260227T231632Z.tar.gz
[ubuntu@ip-172-31-0-90:~/gitea-stack$
[ubuntu@ip-172-31-0-90:~/gitea-stack$ aws s3 ls s3://s3-gitea-server/backups/
 2026-02-27 23:50:29      63676 gitea-backup-20260227T231632Z.tar.gz
```

- Proof of persistence or restore (before/after) - EBS

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker restart gitea
gitea
[ubuntu@ip-172-31-0-90:~/gitea-stack$ curl -I http://34.205.15.103/kaisarhossain/TestRepo
HTTP/1.1 200 OK
Server: nginx/1.29.5
Date: Fri, 27 Feb 2026 23:13:45 GMT
Content-Type: text/html; charset=utf-8
Connection: keep-alive
Cache-Control: max-age=0, private, must-revalidate, no-transform
Set-Cookie: i_like_gitea=b60f7194298dd125; Path=/; HttpOnly; SameSite=Lax
Set-Cookie: _csrf=j6h2prWRy_dGML-SY9Ge4OqS5wM6MTc3MjIzNDAyNTM0NzA2OTY3OA; Path=/; Max-Age=86400; HttpOnly; SameSite=Lax
X-Frame-Options: SAMEORIGIN

[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker compose down
WARN[0000] /home/ubuntu/gitea-stack/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] down 3/3
 ✔ Container gitea-nginx         Removed                                                                                                       10.2s
 ✔ Container gitea              Removed                                                                                                         0.1s
 ✔ Network gitea-stack_gitea-net Removed                                                                                                       0.1s
[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker compose up -d
WARN[0000] /home/ubuntu/gitea-stack/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] up 3/3
 ✔ Network gitea-stack_gitea-net Created                                                                                                       0.0s
 ✔ Container gitea              Started                                                                                                         0.3s
 ✔ Container gitea-nginx         Started                                                                                                        0.4s
[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED         STATUS         PORTS                                       NAMES
157ba3313c55   nginx:latest   "/docker-entrypoint.…"   11 seconds ago  Up 10 seconds  0.0.0.0:80->80/tcp, [::]:80->80/tcp          gitea-nginx
a7e9c653dddb   gitea/gitea:latest "/usr/bin/entrypoint…" 11 seconds ago Up 10 seconds  22/tcp, 3000/tcp                            gitea
[ubuntu@ip-172-31-0-90:~/gitea-stack$ curl -I http://34.205.15.103/kaisarhossain/TestRepo
HTTP/1.1 200 OK
Server: nginx/1.29.5
Date: Fri, 27 Feb 2026 23:14:47 GMT
Content-Type: text/html; charset=utf-8
Connection: keep-alive
Cache-Control: max-age=0, private, must-revalidate, no-transform
Set-Cookie: i_like_gitea=79507f6ae950e0f1; Path=/; HttpOnly; SameSite=Lax
Set-Cookie: _csrf=oIDXeKbJ0foYldsIPF2TsPmm5TM6MTc3MjIzNDA4NjkwMzcwOTAzMw; Path=/; Max-Age=86400; HttpOnly; SameSite=Lax
X-Frame-Options: SAMEORIGIN
```

- Proof of persistence or restore (before/after) – S3

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ aws s3 ls s3://s3-gitea-server/backups/
 2026-02-27 23:50:29      63676 gitea-backup-20260227T231632Z.tar.gz
[ubuntu@ip-172-31-0-90:~/gitea-stack$ docker compose down
WARN[0000] /home/ubuntu/gitea-stack/docker-compose.yml: the attribute `version` is obsolete,
[+] down 3/3
 ✔ Container gitea-nginx        Removed
 ✔ Container gitea              Removed
 ✔ Network gitea-stack_gitea-net Removed
[ubuntu@ip-172-31-0-90:~/gitea-stack$
[ubuntu@ip-172-31-0-90:~/gitea-stack$ curl -I http://34.205.15.103/kaisarhossain/TestRepo
 curl: (7) Failed to connect to 34.205.15.103 port 80 after 0 ms: Couldn't connect to server

 ubuntu@ip-172-31-0-90:~/gitea-stack$ docker compose down
 aws s3 cp s3://s3-gitea-server/backups/<backup-file>.tar.gz /tmp/
 tar -xzf /tmp/<backup-file>.tar.gz -C /
[docker compose up -d
WARN[0000] /home/ubuntu/gitea-stack/docker-compose.yml: the attribute `version` is obsolete,
-bash: backup-file: No such file or directory
-bash: backup-file: No such file or directory
WARN[0000] /home/ubuntu/gitea-stack/docker-compose.yml: the attribute `version` is obsolete,
[+] up 3/3
 ✔ Network gitea-stack_gitea-net Created
 ✔ Container gitea              Started
 ✔ Container gitea-nginx        Started
[ubuntu@ip-172-31-0-90:~/gitea-stack$
[ubuntu@ip-172-31-0-90:~/gitea-stack$ curl -I http://34.205.15.103/kaisarhossain/TestRepo
HTTP/1.1 200 OK
Server: nginx/1.29.5
Date: Sat, 28 Feb 2026 00:18:09 GMT
Content-Type: text/html; charset=utf-8
Connection: keep-alive
Cache-Control: max-age=0, private, must-revalidate, no-transform
Set-Cookie: i_like_gitea=54c7c890581b1807; Path=/; HttpOnly; SameSite=Lax
Set-Cookie: _csrf=GBCnqX4yPKcnfbfvDDAqsmW6Fuw6MTc3MjIzNzg4OTY5OTg1ODk4Mw; Path=/; Max-Age=8€
X-Frame-Options: SAMEORIGIN
```

Gitea Repository push

```
[ubuntu@ip-172-31-0-90:~/gitea-stack$ vi README.md
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git init
 Reinitialized existing Git repository in /home/ubuntu/gitea-stack/.git/
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git add README.md
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git commit -m "Final README edit"
 [main 6a5dc91] Final README edit
  Committer: Ubuntu <ubuntu@ip-172-31-0-90.ec2.internal>
 Your name and email address were configured automatically based
 on your username and hostname. Please check that they are accurate.
 You can suppress this message by setting them explicitly. Run the
 following command and follow the instructions in your editor to edit
 your configuration file:

     git config --global --edit

 After doing this, you may fix the identity used for this commit with:

     git commit --amend --reset-author

  1 file changed, 69 insertions(+), 54 deletions(-)
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git branch -M main
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git remote add origin http://34.205.15.103/kaisarhossain/TestRepo.git
 error: remote origin already exists.
[ubuntu@ip-172-31-0-90:~/gitea-stack$ git push -u origin main
[Username for 'http://34.205.15.103': kaisarhossain
[Password for 'http://kaisarhossain@34.205.15.103':
 Enumerating objects: 5, done.
 Counting objects: 100% (5/5), done.
 Delta compression using up to 2 threads
 Compressing objects: 100% (2/2), done.
 Writing objects: 100% (3/3), 908 bytes | 908.00 KiB/s, done.
 Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
 remote: . Processing 1 references
 remote: Processed 1 references in total
 To http://34.205.15.103/kaisarhossain/TestRepo.git
    953a10b..6a5dc91  main -> main
 branch 'main' set up to track 'origin/main'.
```