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CLASS: BSE 5B
REG.NO: 058
SUBJECT: CLOUD COMPUTING

LAB#08

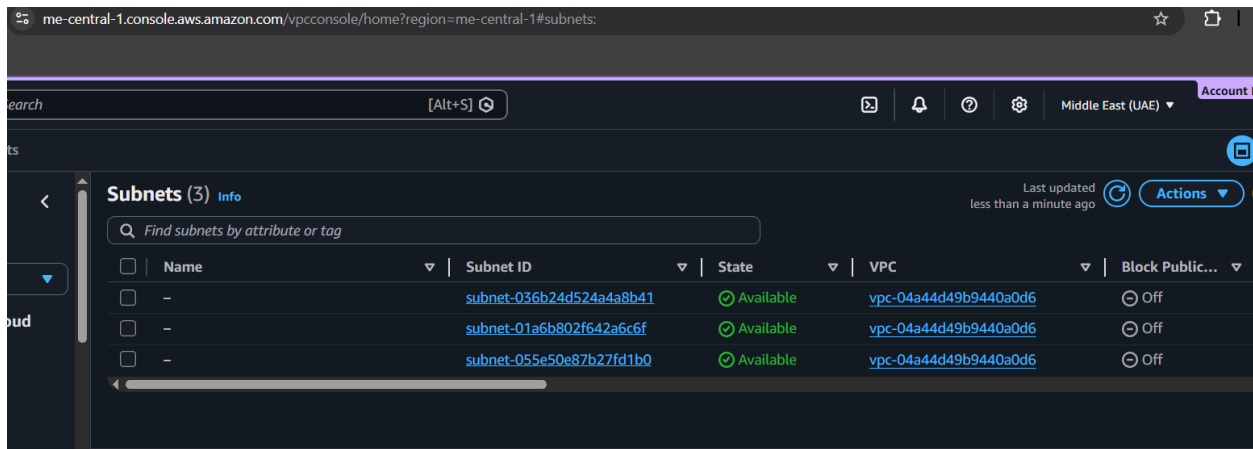
Task 1 & 2: Account & IAM Setup

The screenshot shows the AWS IAM console interface. At the top, there's a navigation bar with icons for Dashboard, Notifications, Help, Settings, and a dropdown for the region 'Europe (Stockholm)'. The account ID '1981-6334-5240' and the user 'SanaTariq' are displayed. Below this, a section for 'Middle East (UAE)' is shown with a green 'Enabled' status. The main content area is titled 'User details' and contains the following sections:

- User name:** A text input field containing 'Admin'. Below it, a note states: 'The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)'.
- Provide user access to the AWS Management Console - optional:** A checked checkbox. A note below says: 'In addition to console access, users with SignInLocalDevelopmentAccess permissions can use the same console credentials for programmatic access without the need for access keys.'
- Console password:** Two radio button options: 'Autogenerated password' (unselected) and 'Custom password' (selected).
 - Under 'Autogenerated password', it says: 'You can view the password after you create the user.'
 - Under 'Custom password', there's a text input field with masked characters '*****'. Below it, two bullet points specify requirements: 'Must be at least 8 characters long' and 'Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } | ' '. Below these is a 'Show password' checkbox (unselected).
- Users must create a new password at next sign-in - Recommended:** A checked checkbox. A note below says: 'Users automatically get the IAMUserChangePassword [policy](#) to allow them to change their own password.'

Task 3: VPC Inspection

The screenshot shows the 'Applications' page in the AWS IAM console. At the top, there's a header with 'Applications (0)' and an 'Info' link. A 'Create application' button is on the right. Below this, the region is set to 'Middle East (UAE)'. There's a 'Select Region' dropdown menu currently showing 'me-central-1 (Current Region)'. A search bar with the placeholder 'Find applications' is also present. Below the search bar, there's a pagination control showing '< 1 >'. A table header is visible with columns: 'Name', 'Description', 'Region', 'Originati.', and two arrow icons. The table body is empty, and a message 'No applications' is displayed at the bottom.



Task 4: EC2 & Gitea Deployment (The Technical Part)

Create key pair

Key pair name

Key pairs allow you to connect to your instance securely.

Lab8key

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☐ RSA
RSA encrypted private and public key pair

☒ ED25519
ED25519 encrypted private and public key pair

Private key file format

☒ .pem
For use with OpenSSH
 ☐ .ppk
For use with PuTTY

Firewall (security groups)

Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group
 ☐ Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow SSH traffic from
Helps you connect to your instance

My IP

154.192.251.82/32

```
[ec2-user@ip-172-31-5-40 ~]$ sudo yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-5-40 ~]$ sudo yum install -y docker
```

```
Complete!
[ec2-user@ip-172-31-5-40 ~]$ sudo mkdir -p /usr/local/lib/docker/cli-plugins
https://github.com/docker/compose/releases/latest/download/docker-compose-linux-x86_64 -o /usr/local/lib/docker/cli-plugins/docker-compose
sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compos
sudo curl -SL https://github.com/docker/compose/releases/latest/download/docker-compose-linux-x86_64 -o /usr/local/lib/docker/cli-plugins/docker-compose
sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
[ec2-user@ip-172-31-5-40 ~]$ sudo mkdir -p /usr/local/lib/docker/cli-plugins
[ec2-user@ip-172-31-5-40 ~]$ sudo curl -SL https://github.com/docker/compose/releases/latest/download/docker-compose-linux-x86_64 -o /usr/local/lib/docker/cli-plugins/docker-compose
% Total    % Received % Xferd  Average Speed   Time    Time     Current
           Dload  Upload   Total   Spent    Left     Speed
  0     0    0     0    0     0      0  0 --:--:-- --:--:-- --:--:--    0
  0     0    0     0    0     0      0  0 --:--:-- --:--:-- --:--:--    0
100 29.8M 100 29.8M    0     0  51.8M    0 --:--:-- --:--:-- --:--:--  51.8M
[ec2-user@ip-172-31-5-40 ~]$ sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
[ec2-user@ip-172-31-5-40 ~]$ sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose
[ec2-user@ip-172-31-5-40 ~]$
```

```
[ec2-user@ip-172-31-5-40 ~]$ nano compose.yaml
[ec2-user@ip-172-31-5-40 ~]$ [ec2-user@ip-172-31-5-40 ~]$ docker compose up -d
[+] up 16/18
[+] up 23/23ea/gitea:latest Pulled
# Image gitea/gitea:latest Pulled
# 2d35ebdb57d9 Pull complete
# 9f4e672c1f34 Pull complete
# 4da94b3cc809 Pull complete
# 8e016ece0bd3 Pull complete
# 346e493cb6cb Pull complete
# 95215379f1d1 Pull complete
# Image postgres:alpine Pulled
# 1074353eec0d Pull complete
# 51a9324a2bdc Pull complete
# 1e827ac0fa1e Pull complete
# 0629ac8b8cc5 Pull complete
# 2e50a444bddf Pull complete
# 4465107e1675 Pull complete
# cc2ee20b6816 Pull complete
# 0dfd86289dd1 Pull complete
# 98eccc0da868 Pull complete
# b747867e61cb Pull complete
# Network webnet Created
# Volume gitea_postgres Created
# Volume gitea Created
# Container gitea_db Created
# Container gitea Created
```

Initial Configuration

If you run Gitea inside Docker, please read the [documentation](#) before changing any settings.

Database Settings

Gitea requires MySQL, PostgreSQL, MSSQL, SQLite3 or TiDB (MySQL protocol).

Database Type *
PostgreSQL

Host *
db:5432

Username *
gitea

Password *

Database Name *
gitea

SSL *
Disable

Schema

Leave blank for database default ("public").

General Settings

Site Title *
Gitea: Git with a cup of tea

You can enter your company name here.