PART 1

link to the lucidchart design:(I used Visual diagram
https://online.visual-paradigm.com):
link to the packet tracer file:

PART 2

Elastic public IP address of the public-facing instance: 54.204.90.186
Private IP addresses of the private instance: 172.31.29.248
Private IP addresses of the public facing instance: 172.31.31.225
HTTPS web server:

Domain: https://networks.aluopensource.com
Details: Simple node.js web server running inside a docker container on port 5000, and a reverse proxy (Traefik) running inside another docker container handling SSL and forwarding the traffic to the node.js server. Source code can be found here.
 OpenVPN username: networks
 OpenVPN password: Rw&a@ALU2021
OpenVPN client file:
https://raw.githubusercontent.com/paularah/networks/master/networks.ovpn

PART 3

Link to packet tracer file:
https://raw.githubusercontent.com/paularah/networks/master/arah_https_capture.pcapng

Link to nmap scan: