[System Design (Part 1): 3-tier app on AWS EKS](https://www.youtube.com/watch?v=8-M2rK4NRyI)

1. General Architecture

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1. Environment / Database Architecture

Diagram

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* 1. Create VPC in specified region
  2. Multiple AZ zones
  3. Deploy workloads in private subnets
  4. AWS cluster (worker nodes) would reside in private subnets
  5. Worker nodes need to be in autoscaling group (if it were to handle many requests)
  6. Need public subnets for user to have access to worker nodes
     1. Also need application load balancer (ALB’s)
     2. For ALB to respond to requests need listeners and targets
        1. Frontend
           1. For listener to know where to send request (once sent from www), need target www
        2. API Server
           1. Allows frontend to talk to API’s
           2. Listener will go to target API and reroute to API pods (worker nodes)
  7. Website served in browser 🡪 makes call to listener API 🡪 ALB matches with targets 🡪 how to route traffic to nodes
  8. When worker node is starting up, it might need to reach into internet to download resource / container
     1. Need internet gateway
     2. NAT GW
  9. Configure routing table in VPC 🡪 any traffic that’s going to subnet that’s not present, have it routed to NAT GW 🡪 routed to Internet gateway
  10. Create instance of this environment using terraform