



Demo request paths showcasing the application's functionality:

A client requests `www.avouris.com` on the DNS and receives an IP from the A records resolving to the load balancer. The load balancer then serves a server through the roudrobin algorithm.

---User requests READ---

A user clicks on "Search Jobs" and enters "Patras" as location, a query is made through the read API to the redis cache. On hit, data is returned to user. On miss, the backend database is queried to get the results. The results are then first cached in redis and then served to the user.

---User requests WRITE---

There are essentially 2 types of users. Job seekers and job posters. The job poster logs into the application by sending a request to the authentication API, which takes his credentials and asks AuthDB for a user with that username/password combination. On success, it fetches the user info with his ID as the key from the Postgresql and handles the privilege escalation. A job poster then lists a job under "Full-stack Developer". Then the request is cached with Redis (To show most recent listings) and sent to Postgres. (Updated logic w/o need for employee approval).