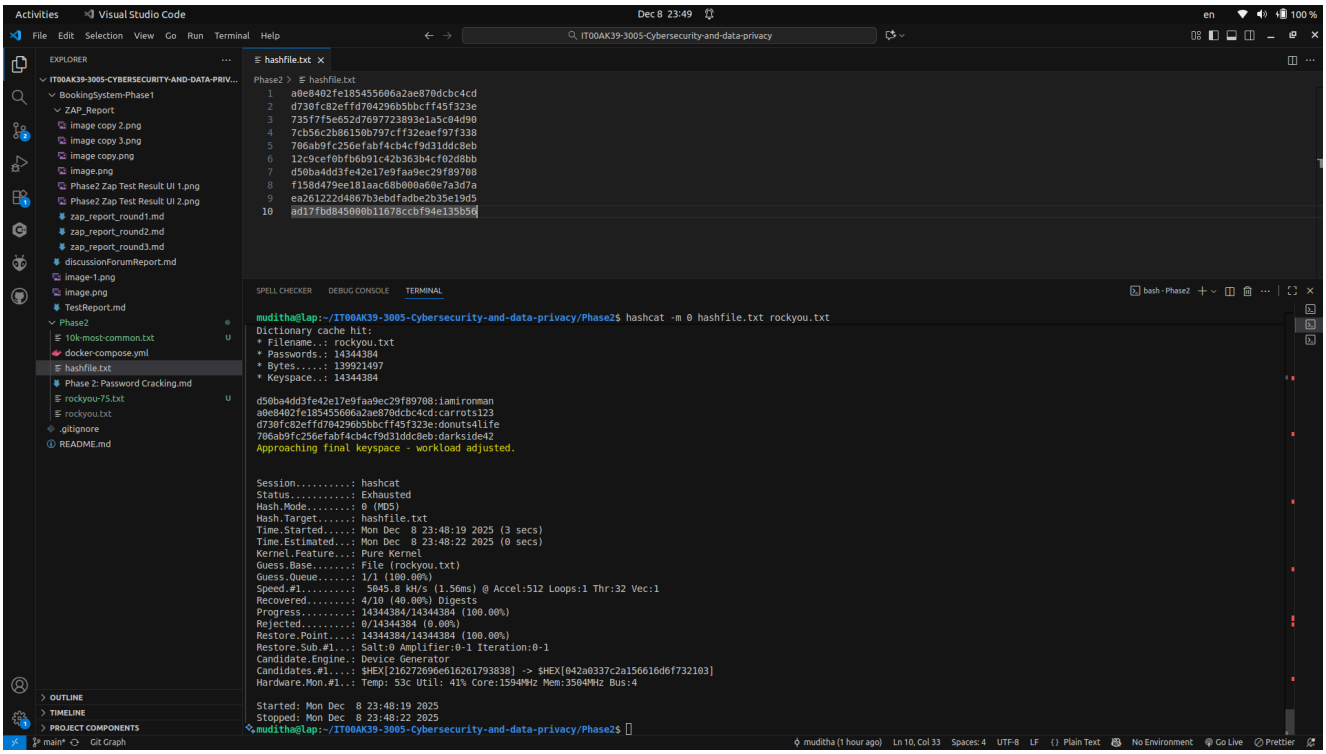
🛡️ Phase 2: Password Cracking Report

🔓 Cracked Password List

Using: `hashcat -m 0 hashfile.txt rockyou.txt`

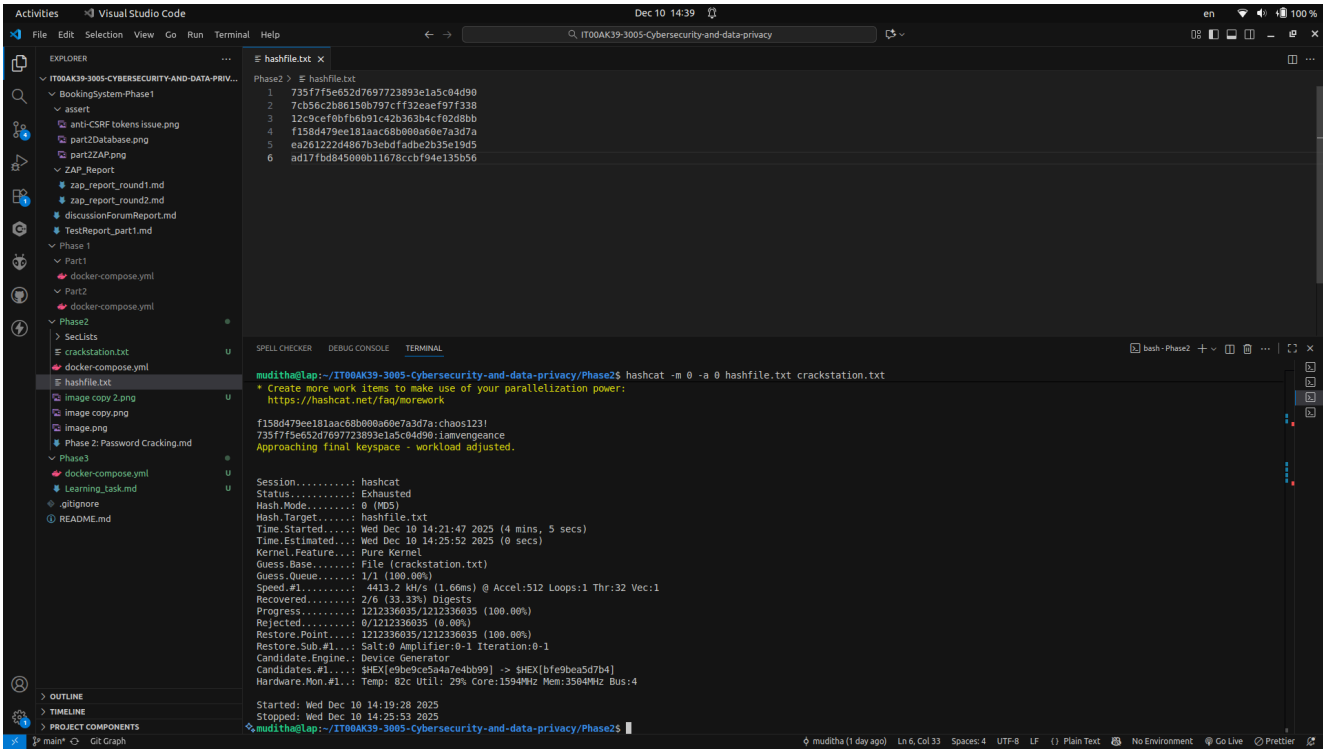
Hash	Password
d50ba4dd3fe42e17e9faa9ec29f89708	iamironman
a0e8402fe185455606a2ae870dcbc4cd	carrots123
d730fc82effd704296b5bbcff45f323e	donuts4life
706ab9fc256efabf4cb4cf9d31ddc8eb	darkside42



Using: `hashcat -m 0 hashfile.txt crackstation.txt`

Hash	Password
f158d479ee181aac68b000a60e7a3d7a	chaos123!

Hash	Password
735f7f5e652d7697723893e1a5c04d90	iamvengeance



📋 Report Answers

1️⃣ Main difference between Dictionary and Non-Dictionary attacks

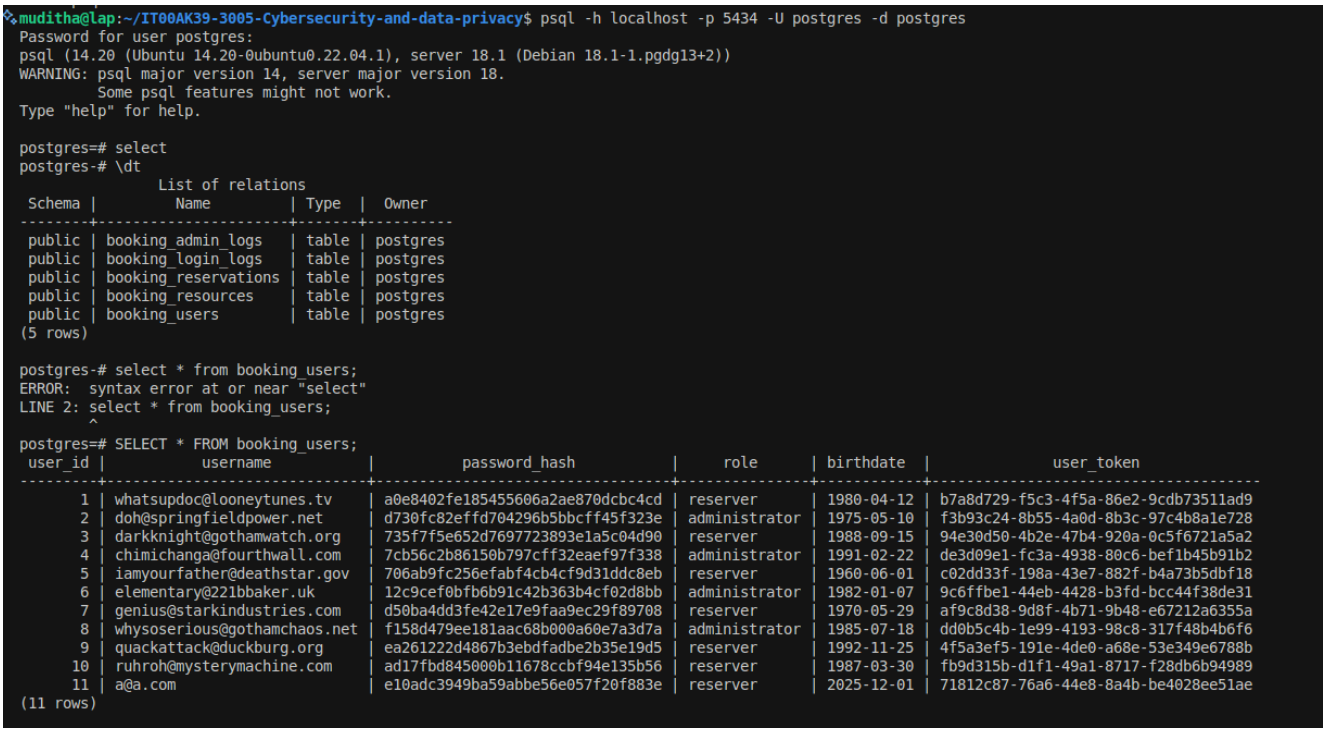
> **Dictionary attack:** Uses a predefined list of possible passwords (wordlist) to try against password hashes, making it fast if the password is common.
> **Non-dictionary attack:** (e.g., brute-force or mask) tries all possible combinations of characters, which is much slower but can crack passwords not found in wordlists(in my machine can run just up to ?a 7 combination).

2️⃣ Advantage of having access to the system's database with users and password hashes

> An attacker can target specific users, attempt to crack their password hashes offline, and use the information to impersonate users or escalate privileges. Knowing usernames and hashes allows for focused and efficient attacks (There for I could identify hashing with MD5 and directly attack using "-m 0").

3️⃣ Security benefits of longer passwords

> Longer passwords increase the number of possible combinations, making brute-force and guessing attacks much more difficult and time-consuming. This greatly improves resistance against both dictionary and non-dictionary attacks (in my machine can run maximum ?a 7 combination and need too much time when compare with 3 sets).



```
muditha@lap:~/IT00AK39-3005-Cybersecurity-and-data-privacy$ psql -h localhost -p 5434 -U postgres -d postgres
Password for user postgres:
psql (14.20 (Ubuntu 14.20-0ubuntu0.22.04.1), server 18.1 (Debian 18.1-1.pgdg13+2))
WARNING: psql major version 14, server major version 18.
         Some psql features might not work.
Type "help" for help.

postgres=# select
postgres-# \dt
              List of relations
 Schema |         Name         | Type  |  Owner
--------+----------------------+-------+----------
 public | booking_admin_logs   | table | postgres
 public | booking_login_logs   | table | postgres
 public | booking_reservations | table | postgres
 public | booking_resources    | table | postgres
 public | booking_users        | table | postgres
(5 rows)

postgres-# select * from booking_users;
ERROR:  syntax error at or near "select"
LINE 2: select * from booking_users;
        ^
postgres=# SELECT * FROM booking_users;
 user_id |          username           |          password_hash           |     role      | birthdate  |              user_token
---------+-----------------------------+----------------------------------+---------------+------------+--------------------------------------
       1 | whatsupdoc@looneytunes.tv   | a0e8402fe185455606a2ae870dcbc4cd | reserver      | 1980-04-12 | b7a8d729-f5c3-4f5a-86e2-9cdb73511ad9
       2 | doh@springfieldpower.net    | d730fc82effd704296b5bbcff45f323e | administrator | 1975-05-10 | f3b93c24-8b55-4a0d-8b3c-97c4b8a1e728
       3 | darkknight@gothamwatch.org  | 735f7f5e652d7697723893e1a5c04d90 | reserver      | 1988-09-15 | 94e30d50-4b2e-47b4-920a-0c5f6721a5a2
       4 | chimichanga@fourthwall.com  | 7cb56c2b86150b797cff32eaef97f338 | administrator | 1991-02-22 | de3d09e1-fc3a-4938-80c6-bef1b45b91b2
       5 | iamyourfather@deathstar.gov | 706ab9fc256efabf4cb4cf9d31ddc8eb | reserver      | 1960-06-01 | c02dd33f-198a-43e7-882f-b4a73b5dbf18
       6 | elementary@221bbaker.uk     | 12c9cef0bfb6b91c42b363b4cf02d8bb | administrator | 1982-01-07 | 9c6ffbe1-44eb-4428-b3fd-bcc44f38de31
       7 | genius@starkindustries.com  | d50ba4dd3fe42e17e9faa9ec29f89708 | reserver      | 1970-05-29 | af9c8d38-9d8f-4b71-9b48-e67212a6355a
       8 | whysoserious@gothamchaos.net | f158d479ee181aac68b000a60e7a3d7a | administrator | 1985-07-18 | dd0b5c4b-1e99-4193-98c8-317f48b4b6f6
       9 | quackattack@duckburg.org    | ea261222d4867b3ebdfadbe2b35e19d5 | reserver      | 1992-11-25 | 4f5a3ef5-191e-4de0-a68e-53e349e6788b
      10 | ruhroh@mysterymachine.com   | ad17fbd845000b11678ccbf94e135b56 | reserver      | 1987-03-30 | fb9d315b-d1f1-49a1-8717-f28db6b94989
      11 | a@a.com                     | e10adc3949ba59abbe56e057f20f883e | reserver      | 2025-12-01 | 71812c87-76a6-44e8-8a4b-be4028ee51ae
(11 rows)
```