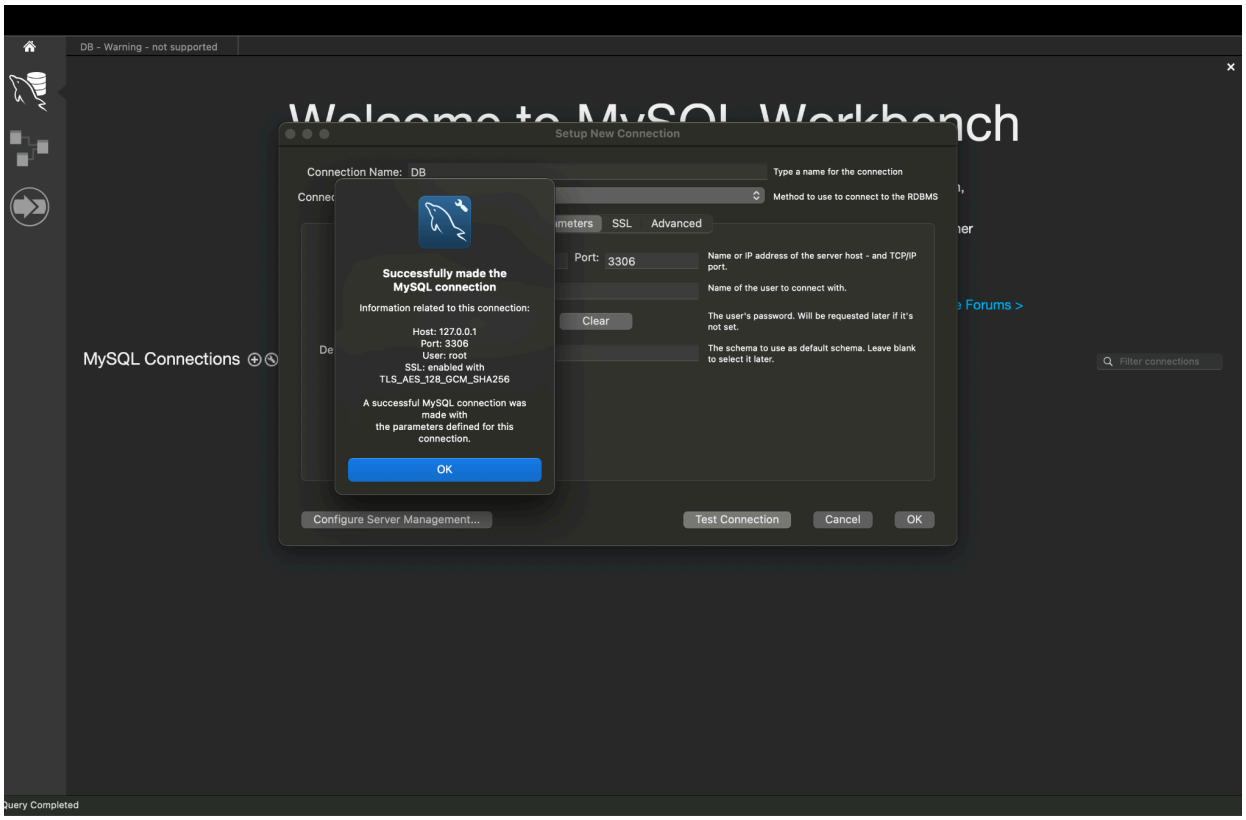
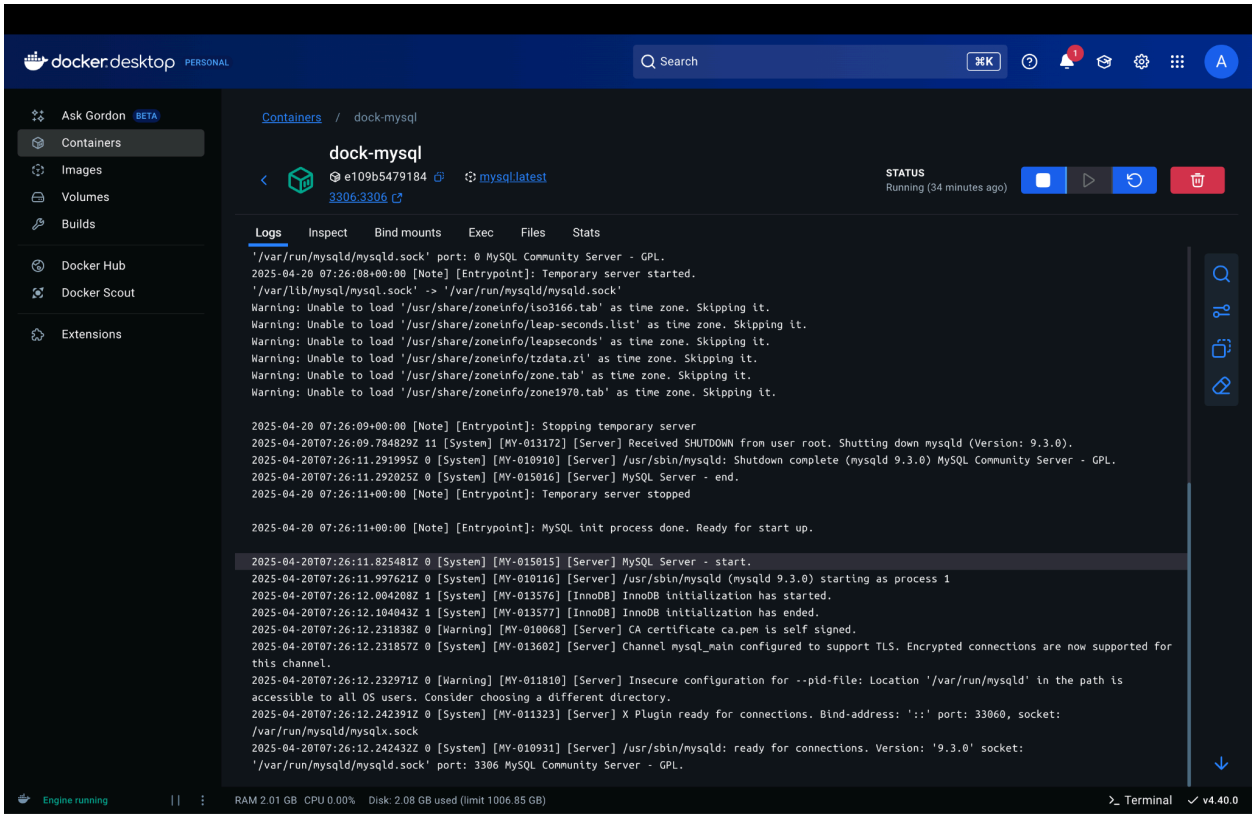
Assignment 2

a. Create a Container with PostgresDB or mySQL database installed (5 Marks)

```
ashishpandey@Ashishs-MacBook-Air Developer % docker run --name dock-mysql -p 3306:3306 -e MYSQL_ROOT_PASSWORD=my-secret-pw -d mysql
Unable to find image 'mysql:latest' locally
latest: Pulling from library/mysql
fa07288abb8b: Pull complete
ec8f39a1086c: Pull complete
c6f7d8b9ec0f: Pull complete
04a0ce28ec2e: Pull complete
638509fc8b3b: Pull complete
12e5c634f2aa: Pull complete
247c3cfdb546: Pull complete
077c1fe576aa: Pull complete
86ee65fddcb9: Pull complete
289ebc772938: Pull complete
Digest: sha256:7839322bd6c3174a699586c3ea36314c59b61b4ce01b4146951818b94aef5fd7
Status: Downloaded newer image for mysql:latest
e109b54791840684e07bff2b3d2010ca0dc675c3561f372f4982338e9f422ea3
ashishpandey@Ashishs-MacBook-Air Developer %
```

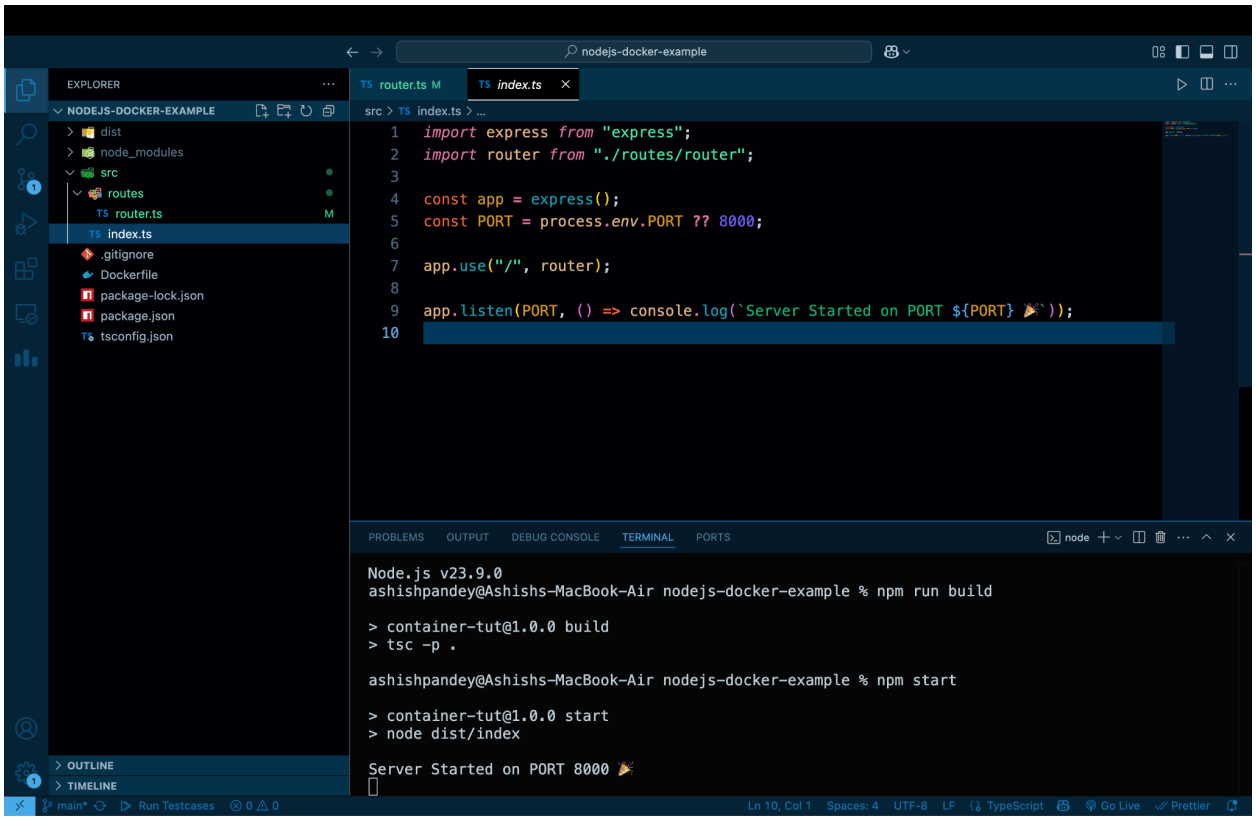
```
ashishpandey@Ashishs-MacBook-Air Developer % docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS          PORTS                                NAMES
e109b5479184   mysql     "docker-entrypoint.s…"   34 seconds ago   Up 33 seconds   0.0.0.0:3306->3306/tcp, 33060/tcp   dock-mysql
ashishpandey@Ashishs-MacBook-Air Developer %
```



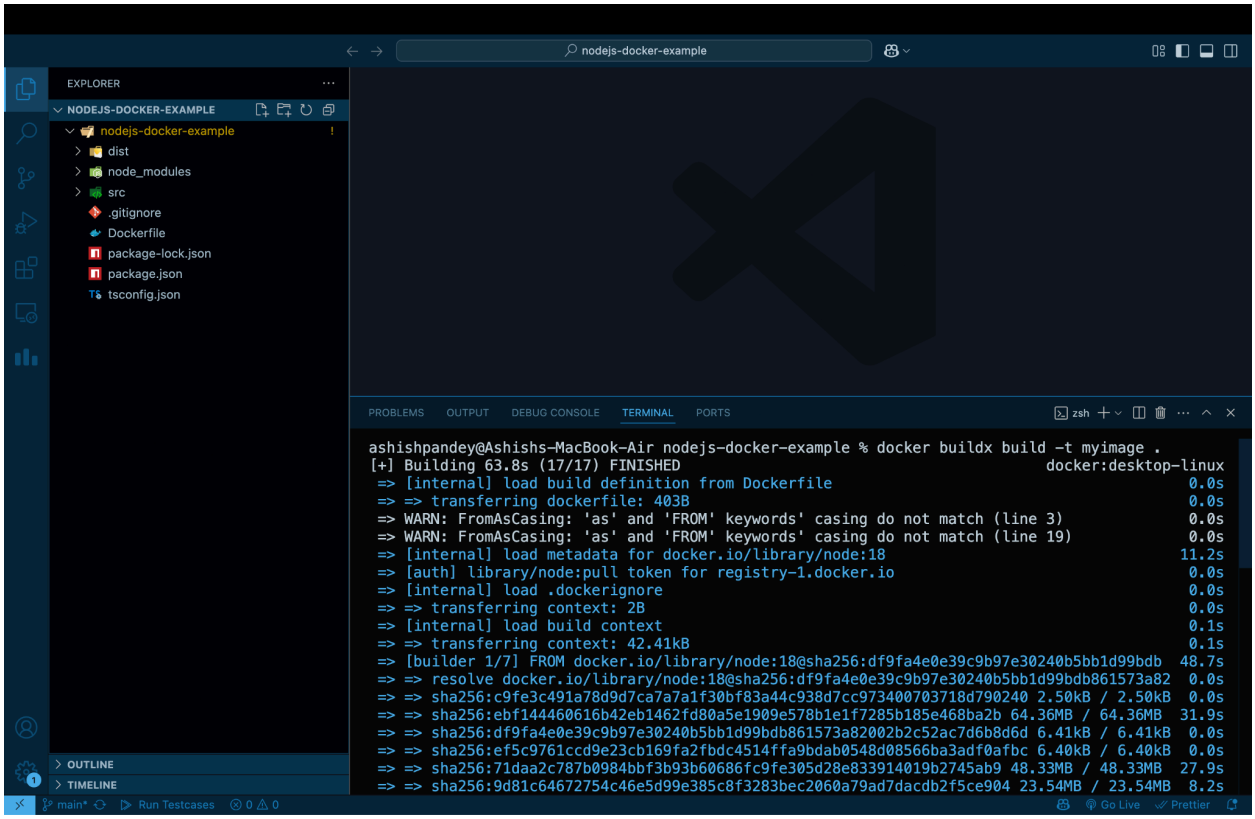

docker desktop PERSONAL
Search ⌘K
Ask Gordon BETA
Containers
Images
Volumes
Builds
Docker Hub
Docker Scout
Extensions
Containers / dock-mysql
dock-mysql
e109b5479184
mysql:latest
3306:3306
STATUS
Running (34 minutes ago)
Logs
Inspect
Bind mounts
Exec
Files
Stats
'/var/run/mysqld/mysqld.sock' port: 0 MySQL Community Server - GPL.
2025-04-20 07:26:08+00:00 [Note] [Entrypoint]: Temporary server started.
'/var/lib/mysql/mysql.sock' -> '/var/run/mysqld/mysqld.sock'
Warning: Unable to load '/usr/share/zoneinfo/iso3166.tab' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/leap-seconds.list' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/leapseconds' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/tzdata.zi' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/zone.tab' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/zone1970.tab' as time zone. Skipping it.
2025-04-20 07:26:09+00:00 [Note] [Entrypoint]: Stopping temporary server
2025-04-20T07:26:09.784829Z 11 [System] [MY-013172] [Server] Received SHUTDOWN from user root. Shutting down mysqld (Version: 9.3.0).
2025-04-20T07:26:11.291995Z 0 [System] [MY-010910] [Server] /usr/sbin/mysqld: Shutdown complete (mysqld 9.3.0) MySQL Community Server - GPL.
2025-04-20T07:26:11.292025Z 0 [System] [MY-015016] [Server] MySQL Server - end.
2025-04-20 07:26:11+00:00 [Note] [Entrypoint]: Temporary server stopped
2025-04-20 07:26:11+00:00 [Note] [Entrypoint]: MySQL init process done. Ready for start up.
2025-04-20T07:26:11.825481Z 0 [System] [MY-015015] [Server] MySQL Server - start.
2025-04-20T07:26:11.997621Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 9.3.0) starting as process 1
2025-04-20T07:26:12.004208Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2025-04-20T07:26:12.104043Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2025-04-20T07:26:12.231838Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2025-04-20T07:26:12.231857Z 0 [System] [MY-013602] [Server] Channel mysql_main configured to support TLS. Encrypted connections are now supported for this channel.
2025-04-20T07:26:12.232971Z 0 [Warning] [MY-011810] [Server] Insecure configuration for --pid-file: Location '/var/run/mysqld' in the path is accessible to all OS users. Consider choosing a different directory.
2025-04-20T07:26:12.242391Z 0 [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address: '::' port: 33060, socket: /var/run/mysqld/mysqlx.sock
2025-04-20T07:26:12.242432Z 0 [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Version: '9.3.0' socket: '/var/run/mysqld/mysqld.sock' port: 3306 MySQL Community Server - GPL.
Engine running
RAM 2.01 GB CPU 0.00% Disk: 2.08 GB used (limit 1006.85 GB)
Terminal
v4.40.0

b. Deploy VReqST – A requirement specification tool in a container (20 marks).

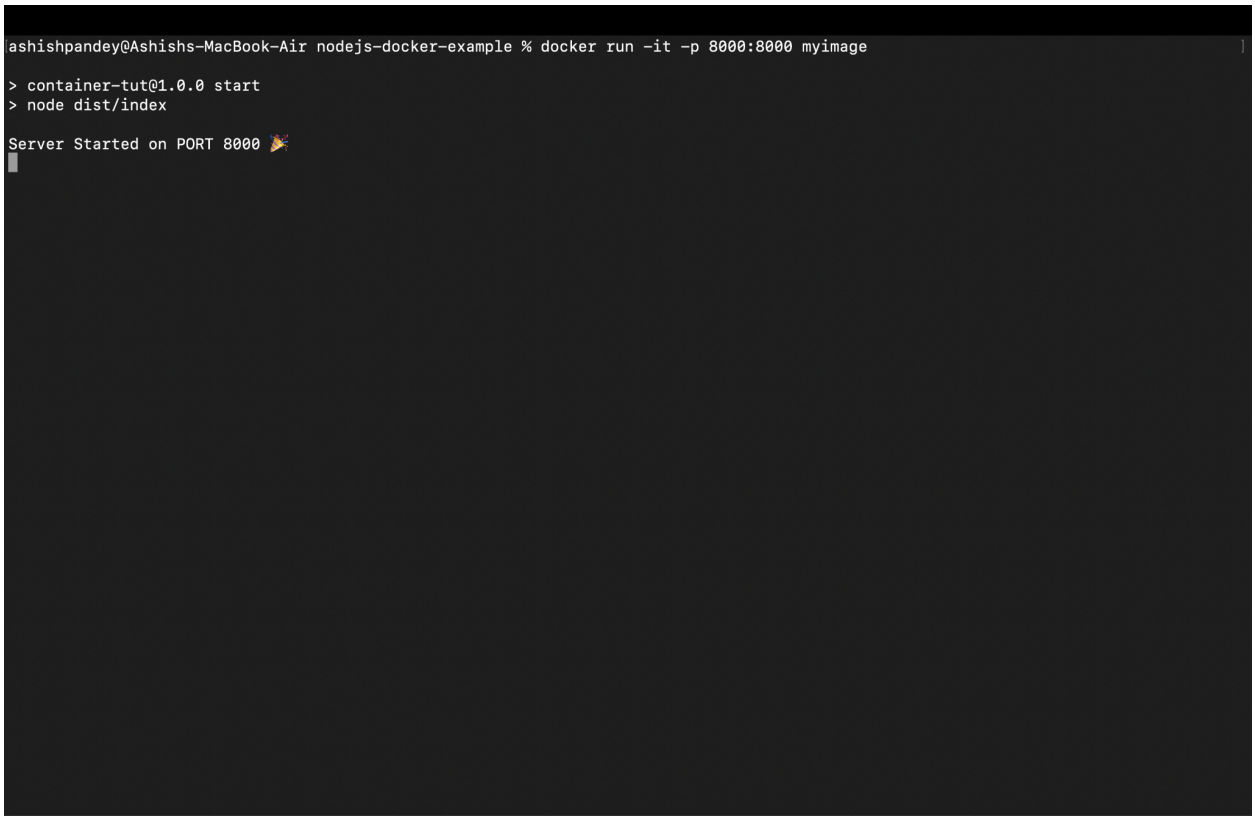
1) Code running outside container:



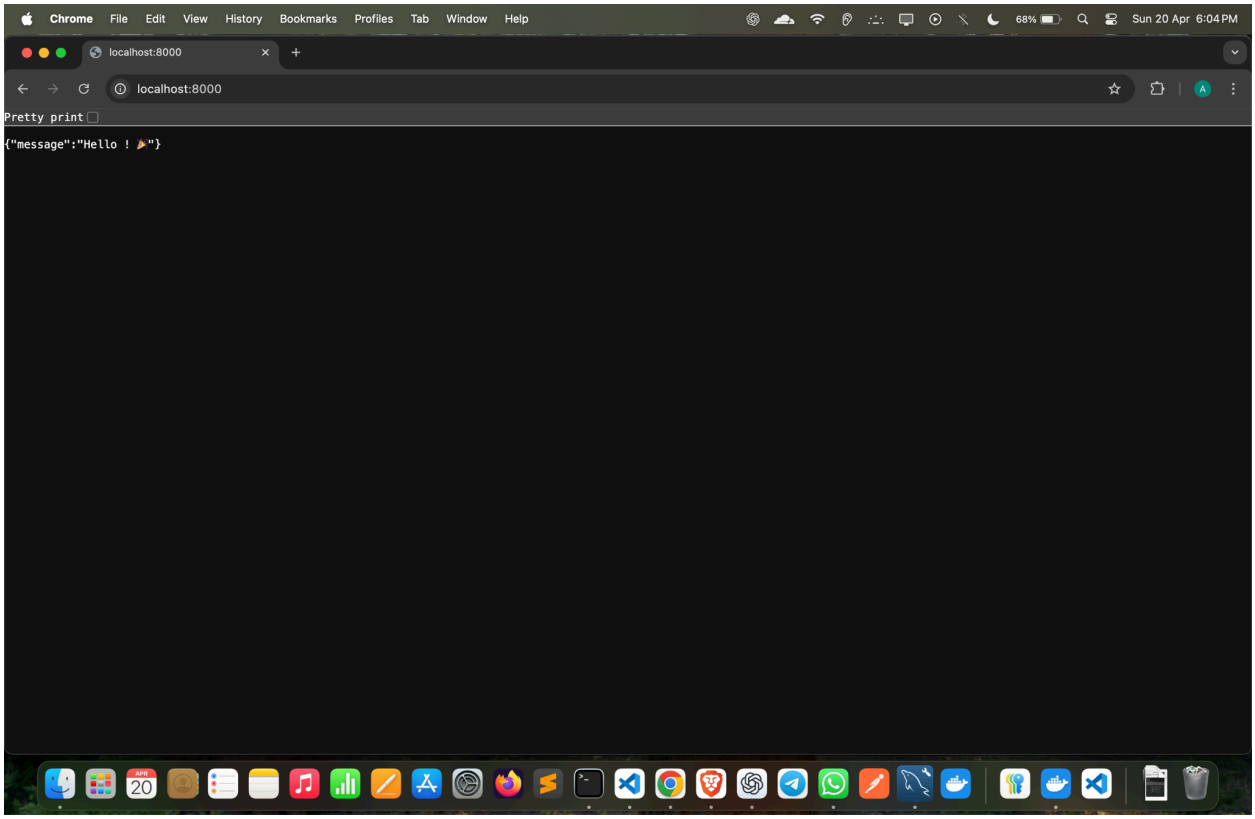
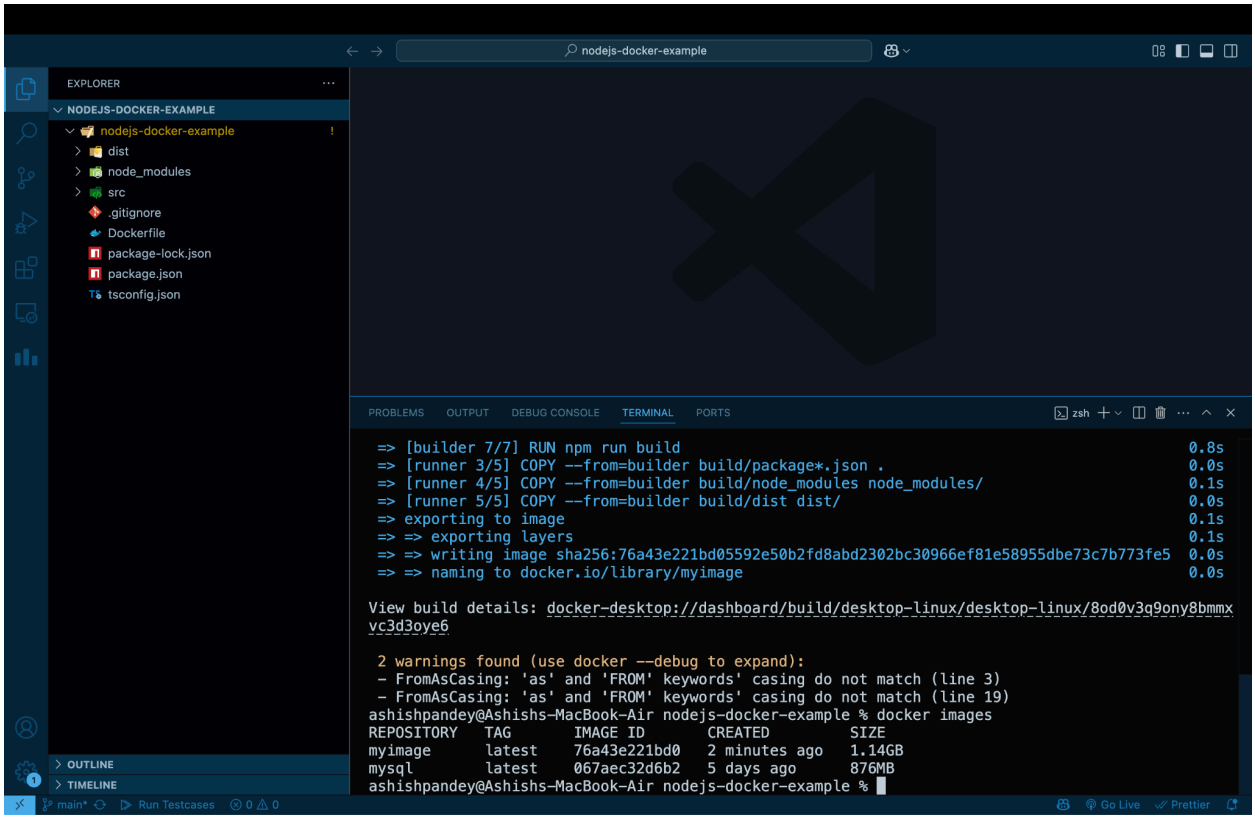
2) Building new container:



3) Started serving the code inside the container:



4) Running from container:



5) List of images: