

Explanation about Authentication and Authorization in a full-stack app

- Frontend
- Possible third party authentication/authorization service
- Backend
- Database server

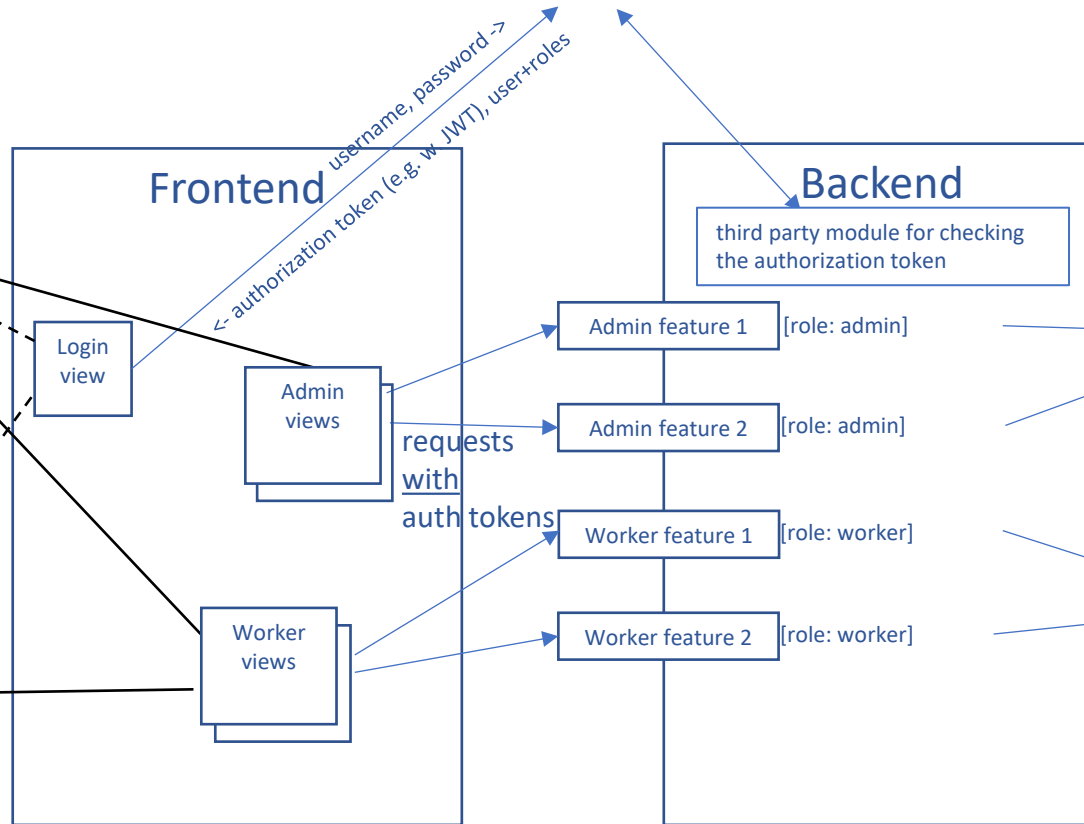


user	email	admin	worker	passwordHash (passwords <u>never</u> stored)
mikkok	mikko.käki@abb.fi	1	1	DSA2SDFIK3SFS4ADFLA93SDFL...
matti86	masa@jopo.fi	0	1	UAPOD1WJF02AWELADFI2AW...

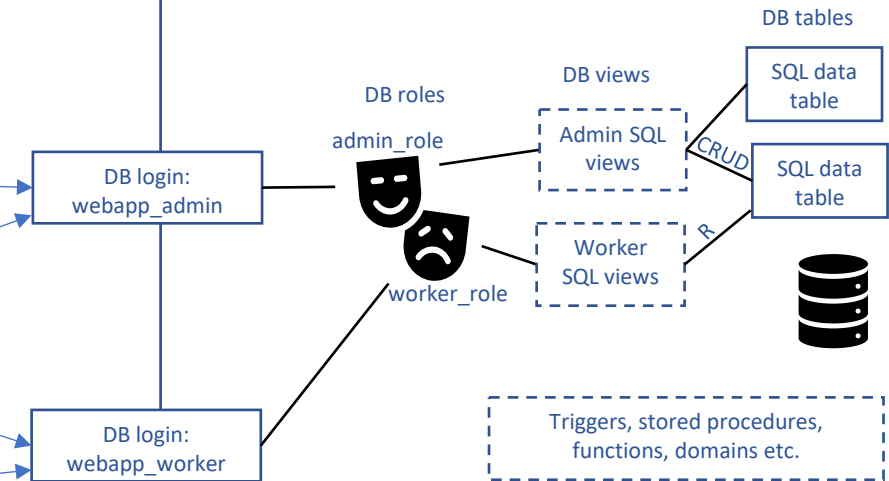
Third party auth system (often used). E.g. w. OAuth tokens

mikkok
(roles: admin,
worker)

matti86
(roles: worker)



Database server and database



Project table (Also data can be used for per item authorization!)

id	name	ownerId	date	description
301	Mercurion	matti86	mmmm	Xxxx xxxx xxxxxx xxxx
302	Lonavala	matti86	nnnnnn	Xxxx xxxx xxxxxx xxxxx



Some developer building/maintaining DB and DB logins directly



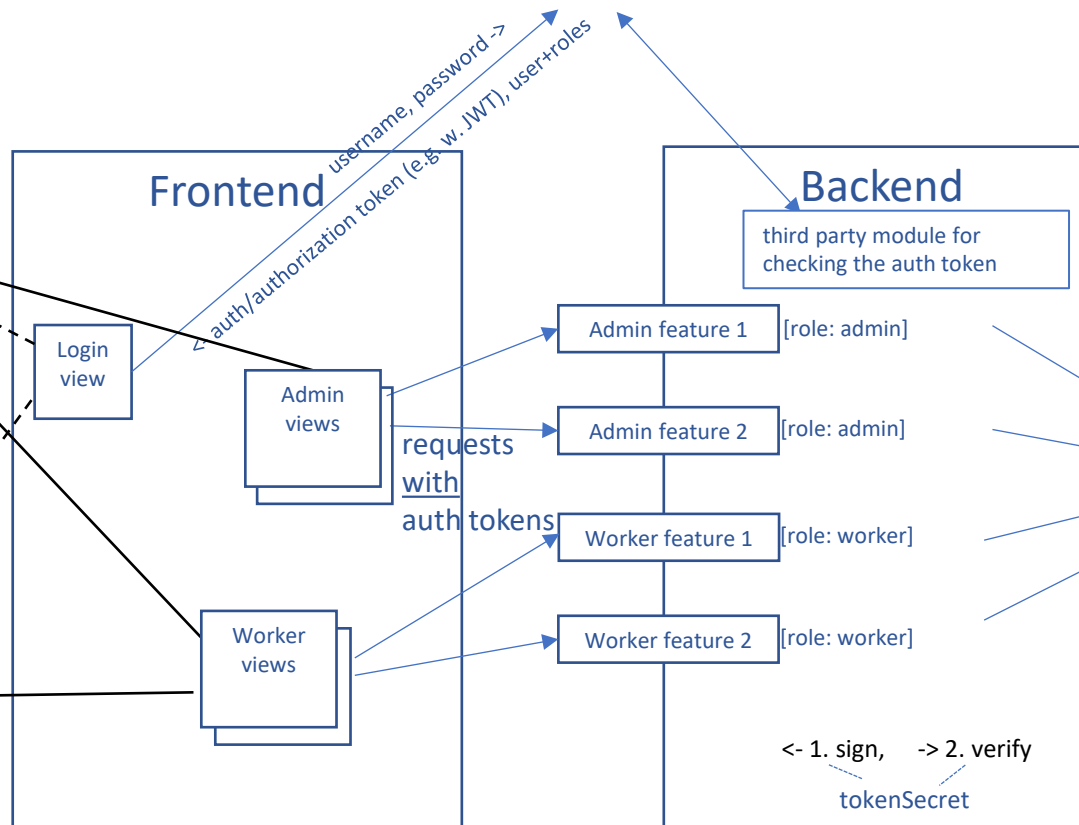
user	email	admin	worker	passwordHash (passwords <u>never</u> stored)
mikkok	mikko.käki@abb.fi	1	1	DSA2SDFIK3SFS4ADFLA93SDFL...
matti86	masa@jopo.fi	0	1	UAPOD1WJF02AWELADFJ2AW...

Third party authentication system (often used)

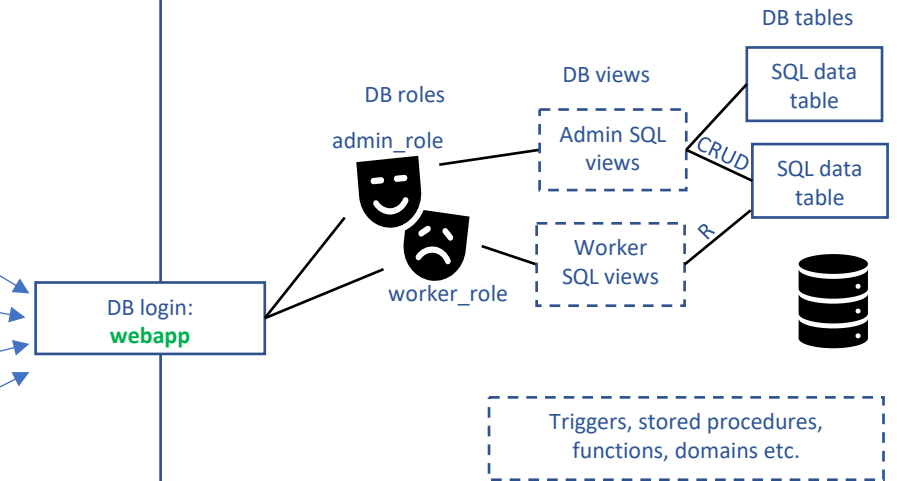
Frequent option, just one DB user for the webapp

mikkok
(roles: admin,
worker)

matti86
(roles: worker)



Database server and database



Project table (Also data can be used for per item authorization!)

id	name	ownerId	date	description
301	Mercurion	matti86	mmmm	Xxxxx xxxx xxxxxxx xxxxx
302	Lonavala	matti86	nnnnnn	Xxxx xxxx xxxxxx xxxxxx



DB login:
dba (etc.)

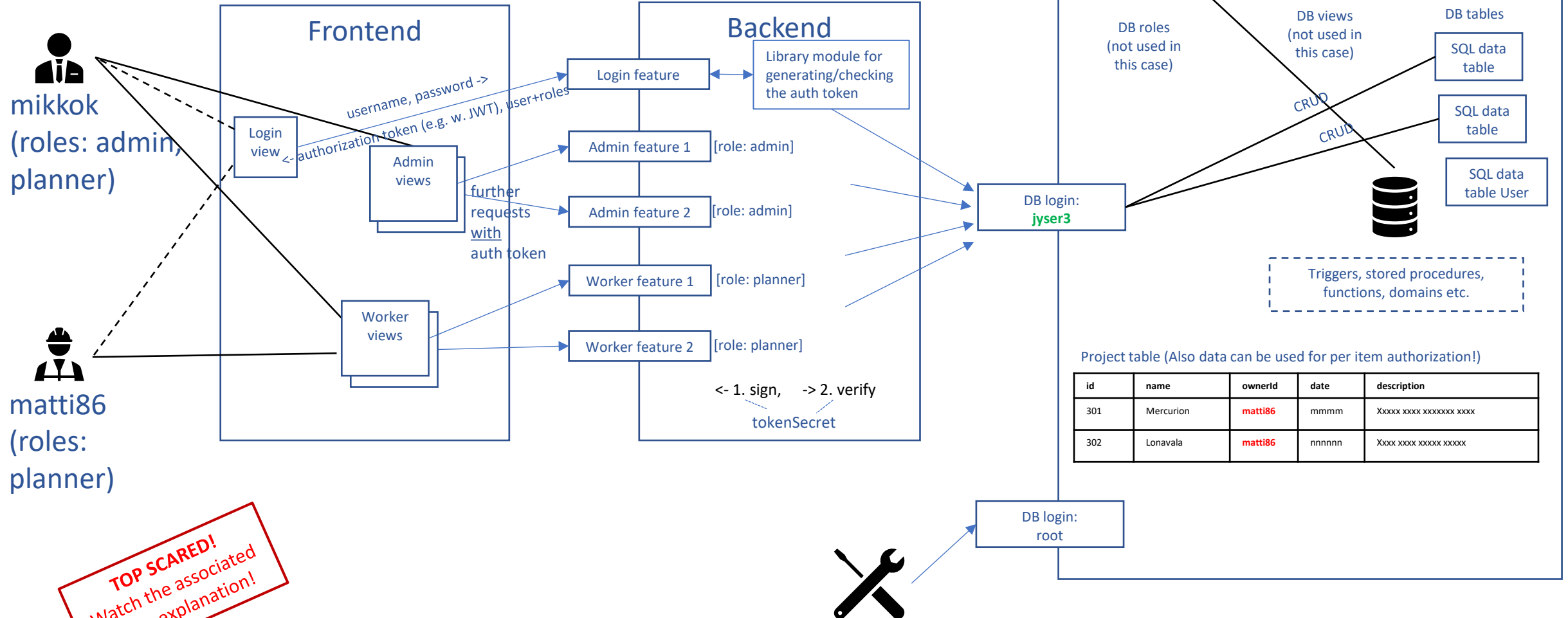
Some developer building/maintaining DB and DB logins directly

TOP SCARED!
Watch the associated
video explanation!

One example project case

user	email	isAdmin	isPlanner	passwordHash (passwords <u>never</u> stored)
mikkok	mikko.käki@abb.fi	1	1	DSA2SDFIK3SFS4ADFLA93SDFL...
matti86	masa@jopo.fi	0	1	UAPOD1WJF02AWELADFJ2AW...

Frequent option, just one DB user for the webapp



TOP SCARED!
Watch the associated
video explanation!

Some developer building/maintaining DB and DB logins directly

SECURITY NOTES

Especially when database server usually is on another server, behind the internet and firewall, consider these:

- Call you DB user something else than 'app', 'webapp', or 'webapp_user', or 'backend' like 50-90% of the developers call it
 - e.g. call it 'bunker_rat' or 'sochi', those would not be any criminals guesses. Or, maybe they are now, so maybe something else random.
- Whitelist/allow in only those IP addresses from where database connections are allowed.
 - Backend server
 - DBA (database admins computer)
- In all security related aspects, write/collect them to one document and harden them before publishing any systems!