Multi-Tenant database ERD

Region

PK	region_id: int
	name: varchar (31)

Tenant

PK	tenant_id: int
	name: varchar (31)
	tenant_user_id: int
	tenant_region_id: int
	is_global: bool

User Roles

PK	roles_id: int
	name: varchar (15)

User

PK	user_id: int
	name: varchar (255)
	user_role_id: int

User Permissions

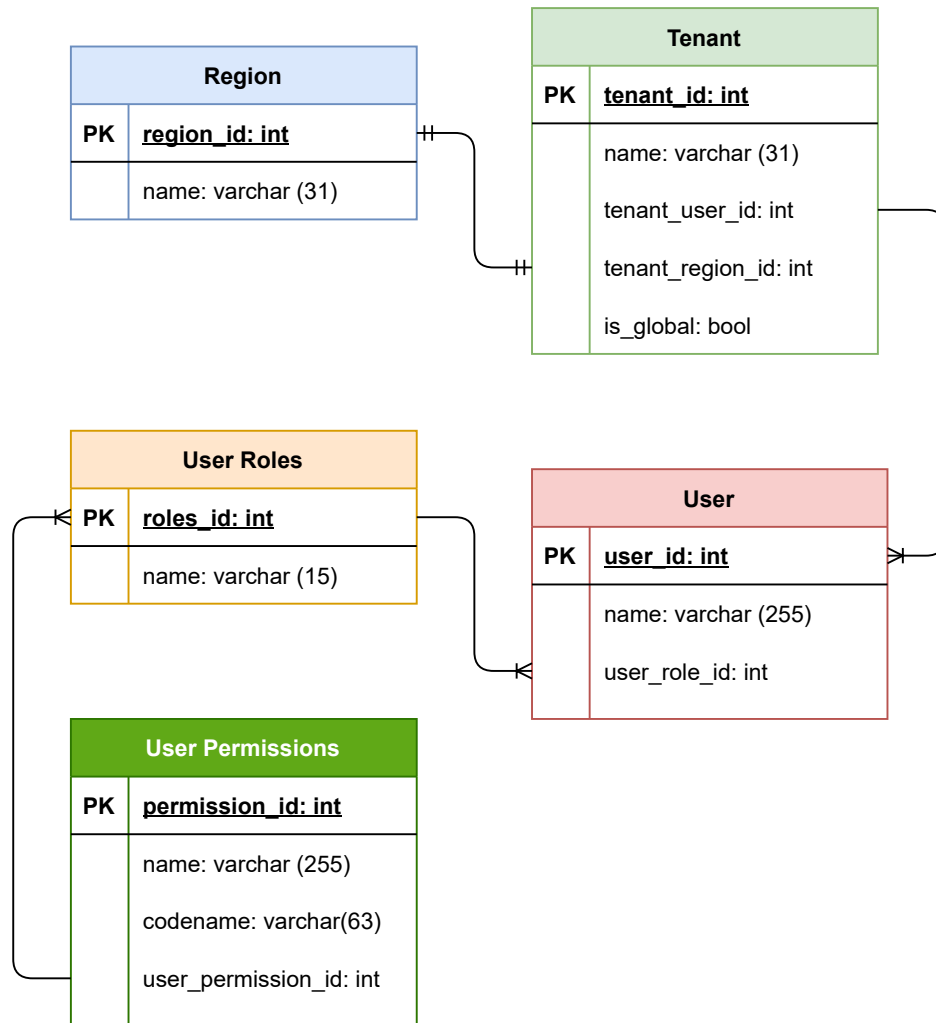| PK	permission_id: int
	name: varchar (255)
	codename: varchar(63)
	user_permission_id: int

Solution Explanation

1. The regions the organisation operate in are stored in the Region datbase.
2. Each Region has a one-to-one relationship with a tenant.
3. The Tenant table has a is_global boolean field to indicate whether the Region is gloabl so that they can see the user data of all regions.
4. Each tenant will have multiple users and each user has a role. The assumption is that global will not have it's own users but be able to see other regions users.
5. Each user has a user role.
6. The User Permssions table determines what action each user role allows each user. The name field describe the permission. The codename is a shortened version of the name for usability. This allows only the admin of a tenant to add and authenticate users.
7. This is related to other user permissions for each user role.