A local town is looking to task your group with creating an application that will oversee provisioning parking permits. The tools and infrastructure are in place, the front-end will be created by another team. Your team needs to provide a solution for the Java-based middle tier.

Initially, the town will issue parking permits for three types of vehicles :

1.) Private use cars – these will be charged £20 per month per registered owner
2.) Building site vehicles – i.e. lorries and trucks – these are charged £30 per month and £5 for every 20kg above 150kg of their capacity
3.) Motorbikes – the charge is £7 per month for a scooter (up to 850 cc) and £10 per month for larger motorbikes

Every vehicle has a unique number plate and at least one registered owner. Only a registered owner can request a parking permission in the town – if the requester in not the registered owner the permission should not be issued. If the request was successful, the permit number will be issued.

Develop the above domain model, think carefully what data structures would be suitable to capture the nuances of the requirements.