One business rule we are implementing is that a user must be able to filter for listings that are within a N-mile radius of their chosen listing. Our target geographic market is the Seattle area which is about 7 miles in width and 20 miles in length. We plan to provide this scan by radius feature because Airbnb does not currently implement anything of the sort. We also want to allow users to use the radius search function because the context of zip codes and neighborhoods are not always consistent, and some users would rather compare listings directly near the area than the entire neighborhood.

Another business rule is that every listing must be in Seattle. Our scope includes only listings within the Seattle city limits, so we want to make sure that the user isn’t given listings outside of the area when scanning a radius by the city’s edge. Thus, before inserting into the location entity, we check that the zip code given is a valid Seattle zip code.

Our third business rule is that the price for a listing must be valid. This means that there should not be a listing price with a negative value. Thus, before inserting the price into the calendar entity, we check that the price is a non-negative value.

A final business rule is to check that listings contain at least one bedroom and one bathroom in order to ensure guests’ privacy and comfort. Thus, before inserting a listing into our listing entity, we check that the host has this condition inputted.