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Explanation:

The generic ParkingLot class is designed to emulate a parking lot, featuring a list to store vehicles and methods for parking and retrieving the list of parked vehicles. The Car class represents a vehicle complete with a license plate, featuring a constructor for license plate initialization and a method for retrieval. Within the ParkingLotSimulation class, the main method orchestrates the instantiation of the parking lot, the parking of cars, and the execution of various operations. The parking lot is initialized, accommodating cars with diverse license plates. Subsequently, the list of parked cars is obtained, followed by custom sorting to arrange cars based on license plates. The sorted cars are then showcased. Lastly, Lambdas and streams are leveraged to scrutinize the cars, explicitly counting those with license plates commencing with 'A.'