Spring Java Assignment

Problem Statement: Create a Flight booking application having following features:

* Register Airlines
  + Create Enum class for 5 different Airlines having below attributes
    - ID
    - Name
    - totalPlanes
    - status (InService, OutofService)
  + Enum class should have methods to get airline by ID or totalPlanes
* Register Planes for the Airline (register 5 planes for each airlines)
  + Create CRUD for Plane entity values to be saved in DB not in enum for this
    - ID
    - Manufacturer (should be enum Manufacturer (Boeing(ID), Airbus(ID)))
    - Airline\_ID (from enum)
    - PassengerCapacity
    - OriginAirport
    - DestinationAirport
    - fareInAED
  + Entity Class should override implement toString and overloaded constructors
* Create SearchFilter and SortFilter classes with required search and sort paraemters
* List All Planes
  + Provide search filter by PassengerCapacity and/or Airline Name and/or DestinationAirport and/or originAirport
  + Sort by Airline using java sorting not sql sorting by
  + Searching queries should be JPQL using named query and parameters
* Use spring annotations for config
* Use spring layers of class like services, repositories, and entities
* Do logging for service, repo, and util methods
* Use spring unit testing
* Use mysql DB
* Use spring transaction handling for CRUD
  + Class level and method level using annotations for both services and repo classes
* Use gradle for project build, and test
* Display OOP principles in your code
* Create as spring boot application with restful apis as a following microservices pattern
  + List planes
  + Search planes basic search by filter
  + Search planes and by filters and sort by filters
  + Register plane
  + Delete planes (soft deletion)