

(Velocity Core) New hire software programming exercise, Spring and REST.

Create a simple REST API service.

1. Create a service that communicates using REST API.
2. Service's job is to maintain a persistent data store of birds, their characteristics, and sightings.
3. At start-up, the service initializes persistent data storage.
4. Service supports two types of data: birds and bird sightings.
5. Service supports CRUD operations for birds and sightings.
6. Birds have the following attributes
 - a. Name
 - b. Color
 - c. Weight
 - d. Height
7. Sightings have the following attributes
 - a. Bird
 - b. Location
 - c. Date-time
8. Service supports listing all birds and sightings.
9. Service supports bird queries by name and color.
10. Service supports sighting queries by bird, location, and time interval.

Other Requirements

1. Use the IDE of your choice
2. The project must be buildable using Maven
3. Use Java 11
4. Use Spring framework
5. Integrate with the open-source data store of your choice (relational or NoSQL, such as PostgreSQL or MongoDB)
6. Document your code
7. Provide simple API documentation
8. Provide instructions on how to:
 - a. Build your project
 - b. Run the datastore (ideally provide a docker-compose.yml file so it can easily be launched in Docker)
 - c. Run your software

Evaluation

Work will be evaluated using the following criteria

1. Adherence to functional requirements.
2. Ease of use.
3. Thread safety.
4. Error handling.
5. Adequate test coverage.
6. Organization and clarity of code.
7. Clarity of documentation