**Code review comments**

In **CovidDetailsServiceImpl**,

1) LOGGER is never used

2) In #getCountries, we can directly store countries in countryRepository.

3) #getCovidDataByName and #getCovidDataByCode can be extracted and made into one method

4) #updateCountry, why are we setting values in country ?

5) In #getCountries, we can use CompletableFuture<?> for calling the API, this way we don't need to wait for result and in meanwhile can do other opeartions like updating the API history

6) isOutdated = false is redundant in #getCountries.

7) We can enable caching for few methods like getAllCountries etc instead of making database calls.

In **CovidRestController**,

1) We should use ResponseEntity<T>, as it gives more control over response as we can set status and headers.

2) We should create raml or swagger for API.

3) We are throwing CovidExceptions from many methods. However, very few are handled in CovidRestController.

In **CovidRestRepositoryImpl**,

1) Instead of writing LOGGER.info in each method for start and end, we can use AOP for logging.

**Repository**

1) In ApiHistoryRepository,CovidDataRepository,CountryRepository we should remove public as methods in interface are implicitly public.

2) Some repositories are missing @Repository annotation

3) Some methods are never used in CovidDataRepository

**Model**

1) In ApiHistory and CovidTotal, call to super() is redundant in No args constructor.

2) Also, in #equals we did not check the Date object for being equal.

3) In #toString, we are using + to concat, this would result in creation of many strings if more than one object is created. prefer using StringBuilder.

4) In CovidData, country and code should be marked with @Indexed and in class country, name should be marked with @Indexed

5) In CovidData, #copy, we are making shallow copy of Date object

6) What is the need for parametrized constructor if we are using setters only ? Maybe we can prefer builder design pattern. This will help us to create immutable objects (as for Country)

**Exception**

1) Unused parametrized constructors

2) In CovidRapidApiErrorHandler, we can combine both if conditions

3) Imports can be organized

Also, we can have class dedicated for constants which can include error messages etc.