Spring mvc

1. Explain what the front-controller does:

a controller that handles all requests for a Web Application

Intercetps all input request and based in url, parameters etc it maps to a particular controller. It seriealize the request and map into an object in memory

1. What are @PathVariables, and how are they different from @RequestParams

binds a URI template variable to a method parameter in a controller and it is different because it is optional

It is part of the url, everything after question mark is requestParam

1. Explain the "Session Per Operation" anti-pattern

It is for opening and closing a Session for each database call in a single thread.

For every small operation we open a session and close session. It solves and non transactional operation

1. Explain the "Open Session in View" pattern and mention what problem is solves.

Open Session in View. Spring opens a new Hibernate Session at the beginning of the request and it soolves the mismatch between the Hibernate concept of session and it’s lifecycle

Osv avoid the lazy initialization. OSV opens as soon requestMapping and close before the response

1. Why does the SessionFactory bean need to be singleton?

To provide only one Hibernate Session to connect to database

1. First the dispature servlet recives a request from a user. Then it consults with the mapping handler and calls the controller that is associated with the request.

The controller then process the request by calling the service methods and it returns model view object to the servlet dispature.

The servlet dispature sends the view name to view resolver that invokes the actual view. Then the servlet dispature pass the model object to the view to render the result .

Finally the view will render the result back to the user.

2. @Requestparam gets parameters from the URL that is after ?. For example [http://somethg?id=1](https://l.facebook.com/l.php?u=http%3A%2F%2Fsomethg%2F%3Fid%3D1%26fbclid%3DIwAR05-CFwKqC1o8eHM9oT40PQcrQGPFVnSyS2hqcWT1lDblw1ddyaj2JZbsI&h=AT17HzdmBOzV2fMWhAq-xsuahkGKauyNUTC-g4kk2039DCVSyx2KgGEEHWXTs4yBIwRo9T6sBTzRo6-xipRbGiGGLK54e8RNlqQCGVWEL8EQIl_6rrIZ1NDLc30fi9P8E41QSf2p).

@Pathvariable get parameter which is embedded in URI. Forexample [http://something/{id](https://l.facebook.com/l.php?u=http%3A%2F%2Fsomething%2F%7Bid%3Ffbclid%3DIwAR2-Dj62BPOHCvTZ6Ti-HlcbxoQmh0WNPtWlL7iHnya1ruzw0aX8F1vhS1c&h=AT17HzdmBOzV2fMWhAq-xsuahkGKauyNUTC-g4kk2039DCVSyx2KgGEEHWXTs4yBIwRo9T6sBTzRo6-xipRbGiGGLK54e8RNlqQCGVWEL8EQIl_6rrIZ1NDLc30fi9P8E41QSf2p)}

3. For every operation a session is opened and trasactions is opened. Then transaction and session is closed after the operations is done. This involves too many session opening and closing. Creating a session for every operation is expensive and when session is closed the session is lost and the entity objects will be deattached and there will be lazy initialization exception.

4. Open session view solves the problem of lazy initialization exception by opening session per view pattern.

5. Session Factory needs to be singlton because we need session factory to be started only once and makes it available everywhere.