**1 – What are Authentication and Authorization ?**

Authentication,(Identity Authentication) state whether we log into any application. Authorization is the answer to this question whether we have permission to do a job or not.

**2 - What is Hashing in Spring Security ?**

The basic features of Hashes are:

Deterministic, same message equals to same hash every time.

Reversible, the message should not obtain from the hash.

High entropy, a small change on hash to cause the big change on messages.

Collision, two different messages cannot represent by same hash.

**3 - What is Salting and why do we use the process of Salting ?**

A salt is **a sequence of randomly generated bytes that is hashed along with the password**. The salt is stored in the storage and doesn't need to be protected. Whenever the user tries to authenticate, the user's password is hashed with the saved salt and the result should match the stored password.

**4 -  What is “intercept-url” pattern ?**

Most web applications using Spring Security only have a couple of intercept-url s because they only have very basic security requirements. You need to have unauthenticated access to the login and login-error screens and usually some aspect of the public site, so that can be a few URL patterns.

**5 - What do you mean by session management in Spring Security ?**

session management relates **to securing and managing multiple users' sessions against their request**. ... In most cases, a session is initiated when a user supplies an authentication such as a password.

**6 – Why we need Exception Handling ?**

Exception handling ensures that the flow of the program doesn’t break when an exception occurs. For example, if a program has bunch of statements and an exception occurs mid way after executing certain statements then the statements after the exception will not execute and the program will terminate abruptly.  
By handling we make sure that all the statements execute and the flow of program doesn’t break.

**7 - Explain what is AuthenticationManager in Spring security ?**

It is a core interface that spring security uses for the authentication process. It has only one method **authenticate**which when implemented in a class that implements an Authentication Manager has **all the logic for authenticating a user request.**

**8 - What is Spring Security Filter Chain ?**

Spring Security maintains a filter chain **internally where each of the filters has a particular responsibility** and filters are added or removed from the configuration depending on which services are required.

**9 – What are the differences between OAuth2 and JWT ?**

the real **difference** is that **JWT** is just a token format, **OAuth** 2.0 is a protocol (that may use a **JWT** as a token format).

**10 - What is method security and why do we need it ?**

 Spring method security **allows us to support / add authorization supports at the method level**. On a high level, we can configure which roles are allowed to access what method within the same service class. Let's take an example of CustomerService class.

**11 – What Proxy means and how and where can be used ?**

A **proxy server** is a system or router that provides a gateway between users and the internet. Therefore, it helps prevent cyber attackers from entering a private network. It is a server, referred to as an “intermediary” because it goes between end-users and the web pages they visit online.

When a computer connects to the internet, it uses an IP address. This is similar to your home’s street address, telling incoming data where to go and marking outgoing data with a return address for other devices to authenticate. A proxy server is essentially a computer on the internet that has an IP address of its own.

**12 – Waht is Wrapper Class and where can be used ?**

Wrapper classes are **used to convert any data type into an object**. The primitive data types are not objects; they do not belong to any class; they are defined in the language itself. Sometimes, it is required to convert data types into objects in Java language. wrapper class contains or wraps primitive data type.

**13 – What is SSL ? What is TLS ? What is the difference ? How can we use them ?**

SSL/TLS **encrypts communications between a client and server**, primarily web browsers and web sites/applications. SSL (Secure Sockets Layer) encryption, and its more modern and secure replacement, TLS (Transport Layer Security) encryption, protect data sent over the internet or a computer network.

**14 - Why do you need the intercept-url ?**

With intercept-url you specify the urls which have to be secured, and also the type of the access (like the role which is necessary etc.).