Introduction:

1. **Data security is important because you need to control what a user or group of user can see in the or for application**

2. **Salesforce provides layer sharing model**

3. **you can easily assign different data sets to different group of users**

4. **you can control access to your whole or or any specific object fields and records**

Levels of data access:

- **Organisation**
- **Objects**
- **Fields**
- **Records**

1. Organisation:

So in this level you can maintain a list of authorised users so you can decide which user will be active or which will be inactive

You can decide the profiles of the users and you can set password policies.

You can limit login to certain hours and locations as well so you can limit IP addresses from which users can login

You can limit the time at which users can login so this way you can control locations as well as hours by using organisation level security.

2.Objects:

You can control object level permissions for both standard and custom objects through this level.

You can set permissions for a particular object so you can decide whether a particular user can access a particular object or not.

Permissions you can decide so those are you can give permissions to view it edit it and delete any records.

3.Field level security:

For example if a particular user still has access to a particular object still You want to restrict them to access particular fields so that can be controlled through field level security so you can restrict access to certain fields in Salesforce even if the user has object level access.

You can make a field visible to a particular user and can hide that from another user you can give read or edit permissions to a field if you don't give both then that field will not be visible to that particular user

Field level security has two permissions one is read and one is edit so there will be two scenarios one where you won't be given any permission one where you are giving either read or edit.

In order to use field level security you need to use profiles and permission sets.

4. Record level security:

You can restrict access to records for users, even if the user has object level permission.

For example a user can view his own records but not others,

You can manage record level access in following ways:

- **Organisation-wide defaults**
- **Role hierarchy**
- **Sharing rules**
- **Manual sharing**

1. organisation -wide defaults:

Organisation-wide defaults specify the default level of access of records for org. Wide sharing settings lock down the data to the most destructive level.

So here you can see three access levels are available one is private another is public read only and another is publicly read/write so you can choose Face Effect as per the requirement.

You can use other record level security and sharing tools to open up the sharing of records so org.wide default basically restrict sharing of records then if you want to share the records so you have three options: role hierarchy, sharing rules and manual sharing.

2. Role hierarchy:

It gives Access for users higher in the hierarchy example so let's say there is employee and another is the manager of the employee so the records which are owned by the manager will be automatically shared to the employees if they have a role hierarchy implemented.

The manager can access all records by users below them in the hierarchy so the manager can access all the records of their subordinates automatically if they share a particular role hierarchy.

3.Sharing rules:

If you want to share records horizontally like there are two employees and they don't have any manager relationship they are in separate hierarchy still you want to share the records so that can be done through sharing rules so these are exceptions to org-wide defaults through sharing rules you can share records to a group of users so that they can get access to the records they don't own or can't manually see.

4. Manual sharing:

If you want to share specific records with specific users or groups of users than you can do this with manual sharing. so it allows owners of particular records to share them with another user's manual sharing is not automated like org wide defaults, role hierarchy or sharing rules it can be useful in some situations where you manually want to share a record with another user so this is a brief about data security that is present in Salesforce