what is the importance of salesforce integration ?

why we do the integration what is the process ?

typical integrations in salesforce and with salesforce

sap-salesforcce

oracle-salesforce

microsoft-salesforce

data replication,analysis/bi,data cleaning

why integration is so important ?

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types of the integration ?

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1-remote process invocation -request and reply

2-remote process invocation-fire and forget

3-batch data synchonization

4-remote call

5-ui update based on the data changes

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remote process invocation -request and reply

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salesforce invoke a process on a remote system waits from the completion of that process and

then track state based on the response from the remote system

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remote process invocation fire and foreget

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salesforce invokes a process from remote system and it doesnt wait fr complition of

the process instead of the remote process recives an acknowledges the request and then hands off control back to salesforce

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batch process synchonization

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Data stored in Force.com should be created or refreshed to reflect

updates from an external system, and when changes from Force.com should be sent to an external system.

Updates in either direction are done in a batch manner.

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remote call

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Data stored in Force.com is created, retrieved, updated, or deleted by a remote system.

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UI update based on the data changes

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The Salesforce user interface must be automatically updated as a result of changes to Salesforce data.

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The integration patterns in this document are classified into two categories:

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REST API Service:

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o'auth

Open authentication

It’s basically a protocol that supports a authorized workflow user has permissions to do something

In oauth we have four roles

1-resourse owner when resource owner is a person it is referred as an end user

2-resourse server-server hosting the protection resource and capable of accepting and responding to protection resource request using access token

3-client

4-autherization server

salesforce uses o'auth protocallto aloow users to securely access the data without reveal the usaer name and password

before making the REST API calls you must autheticate user using O'AUTH 2.0

1st setup ur application as a connected app in salesforce.com

2nd determine correct salesforce oauth endpoint for your connected app

authenticate the connected app user via one of the several difference oauth 2.0 authentication flow

an oauth flow defines series of steps used to coordinate the process between your application and salesforce

Supported OAUTH2.0 flows

1-webserver flow

2-user -agent flow

3-username-password flow

after sucessfully authenticated the connected appuser with salesforce you will receive a "acess token"

which can be used to make authenticated REST API calls

STEPS FOR CONNECTED APP

created the connected app

entre the call back url depending on the which authentic flow you use

the url that a user browsers is redirected to after sucessfully authenticated

url is used for some oauth to flows to pass the access token

url must be used http/https or custom uri schema

entre url for info url this is user can go for more information about yoour application

click save u will have consumer key is created and consumer secret cretaed

use consumer key and consumer secret to authenticate your application

Oauth end points are the urls you use to authentication request to salesforce

Web Server OAUTH Authentication Flow

what is web server oauth?

why we use web server oauth?

**Protocol Flow**

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| |--(A)- Authorization Request ->| Resource |

| | | Owner |

| |<-(B)-- Authorization Grant ---| |

| | +---------------+

| |

| | +---------------+

| |--(C)-- Authorization Grant -->| Authorization |

| Client | | Server |

| |<-(D)----- Access Token -------| |

| | +---------------+

| |

| | +---------------+

| |--(E)----- Access Token ------>| Resource |

| | | Server |

| |<-(F)--- Protected Resource ---| |

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The abstract OAuth 2.0 flow illustrated in Figure 1 describes the

interaction between the four roles and includes the following steps:

(A) The client requests authorization from the resource owner. The

authorization request can be made directly to the resource owner

(as shown), or preferably indirectly via the authorization

server as an intermediary.

(B) The client receives an authorization grant, which is a

credential representing the resource owner's authorization,

expressed using one of four grant types defined in this

specification or using an extension grant type. The

authorization grant type depends on the method used by the

client to request authorization and the types supported by the

authorization server.

(C) The client requests an access token by authenticating with the

authorization server and presenting the authorization grant

(D) The authorization server authenticates the client and validates

the authorization grant, and if valid, issues an access token.

(E) The client requests the protected resource from the resource

server and authenticates by presenting the access token.

(F) The resource server validates the access token, and if valid,

serves the request.