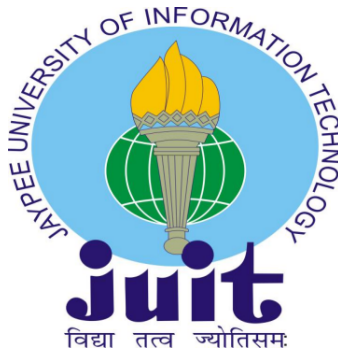


Systems, Applications & Products in Data Processing

Project Report Is Submitted In Partial Fulfillment Of The Requirement For The Degree Of
Bachelor Of Technology

In

BIOTECHNOLOGY



Submitted By:

Ishita Samrat (171828)

Name of Supervisor : Dr. Udayabanu, M.

Project Work Completed Under Supervised Guidance At **Dxc Technology Private Limited.**

To

Department of Biotechnology

Jaypee University of Information Technology, Wagnaghat, Solan-173234

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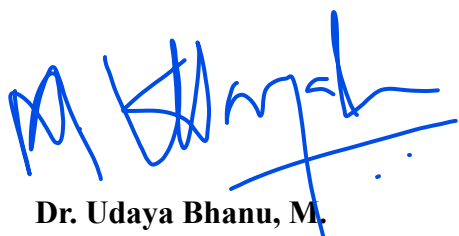
Declaration By Candidate

I hereby declare that the work presented in this report entitled “**Systems, Applications & Products in Data Processing**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in Biotechnology submitted in the department of **Biotechnology**, Jaypee University of Information Technology, Waknaghat in an authentic record of my own work, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.



Ishita (171828)

This is to certify that the above statement made by the candidate is true to the best of my knowledge.



Dr. Udaya Bhanu, M.

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Department of Biotechnology & Bioinformatics

Dated: 26th May, 2021

Acknowledgment

This project consumed a huge amount of work, research and dedication. Nonetheless, without the kind guidance and help of a few friends, this would not have been possible and I would like to express my deepest appreciation to all of them.

I would like to take this opportunity to extend my profound and heartfelt appreciation to my supervisors, **Dr. Udayabanu, M.** and **DXC Technology** for their helpful counsel, inspiring ideas, invaluable encouragement, assistance and support in completing this project successfully.

I am also extremely thankful to all my colleagues who helped and supported me with their skills, guidance and invaluable suggestions as well.

Project Report Undertaking

I Mr. /Ms. **Ishita** Roll No. **171828** Branch **Biotechnology** is doing my internship with **DXC TECHNOLOGY** from **15.02.2021** to **24.04.2021**

As per procedure I have to submit my project report to the university related to my work that I have done during this internship.

I have compiled my project report. But due to COVID-19 situation my project mentor in the company is not able to sign my project report.

So I hereby declare that the project report is fully designed/developed by me and no part of the work is borrowed or purchased from any agency. And I'll produce a certificate/document of my internship completion with the company to TnP Cell whenever COVID-19 situation gets normal.

A handwritten signature in black ink, appearing to read 'Ishita', with a horizontal line underneath.

Signature:

Name: **Ishita**

Roll No. **171828**

Date: **26th May, 2021**

Abstract

Systems, Applications & Products in Data Processing is the most generally utilized ERP programming, with many completely incorporated modules that cover pretty much every feature of corporate administration. SAP represents Systems Applications and Products in Data Processing, and it is an ERP program. SAP is both the name of the firm and the name of the ERP (Enterprise Resource Planning) programming. It is a worldwide programming organization situated in Germany that makes endeavor programming to oversee corporate activities and client connections. SAP is the world's third biggest programming firm. As far as market capitalization, it comes third behind Microsoft and IBM. .The organization is particularly known for its ERP programming which was Founded in 1972 as a private association named System Analysis and Software Development.

Systems, Applications & Products in Data Processing programming arrangements are successful devices for assisting organizations with dealing with their accounts, coordinations, HR, and different parts of their activities. The SAP ERP framework, which is the most impressive Enterprise Resource Planning(ERP) framework by and by accessible, is the foundation of SAP's product portfolio. They make programming to assist organizations with dealing with their tasks and customer associations. In the ERP market, SAP is viewed as the undisputed pioneer. In the year 2010, SAP has around 140,000 establishments all through the world, more than 25 industry-explicit business arrangements, and more than 75,000 clients in 120 nations. Prophet, Microsoft Dynamics, and other SAP Software contenders are accessible.

CHAPTER 1: SAP BASIS

Business Application Systems Integrated Solutions (BASIS) is a SAP abbreviation that represents Business Application Systems Integrated Solutions. All SAP applications are overseen by SAP BASIS, which is an innovative Step. Low-level administrations, for example, data set correspondence are highlighted in SAP applications, just as undeniable level apparatuses for end clients and executives. Premise is a bunch of SAP middleware projects and advances that fill in as a connection between data sets, working frameworks, and applications, for example, FI and MM and so forth.

SAP BASIS is the key framework programming that empowers applications like Finance Accounting, Production Planning, Sales and Distribution, SAP EWM, and different modules to perform proficiently. SAP BASIS is a middleware application that shows the contrast between SAP's engineering, organization, and working framework. RDBMS, GUI, CCMS, and other huge framework organization segments make SAP BASIS. The SAP Basic Component is the premise of SAP Applications and ERP programming, and it incorporates the CCMS (Computer Center Management System) that is needed for the framework of the board. SAP BASIS is an administration framework for SAP framework assignments like establishment, arrangement, load adjusting, and execution observing of SAP applications running on Java and SAP ABAP. It gives the runtime climate to the remainder of R/3 Applications. It is the solitary interface definition in the middle of BASIS and the framework parts, client/framework organization, information word reference and advancement Step for SAP based applications.

1.1 Features of SAP Basis:

SAP Basis has a few highlights, for example, -

- Information base organization is worried about the advancement of different application activities and data set observing.
- Framework organization - fills in as a connection between the Basis and System segments, with an emphasis on the advancement Step and the information word reference.

- Client Administration - Provides an assortment of devices to help clients in overseeing activities like arrangement, establishment, update, and investigating.
- Security Administration - Ensures the security of SAP frameworks by incorporating the approval module, which defends the situation against possible penetrations, information control, and different dangers. Customer Server Architecture - Based on SAP R/3's continuous design. These layers each have their own arrangement of capacities that permit SAP applications to work.
- SAP GUI portrays the framework's graphical UI (GUI) segments. GUI for Windows, GUI for Java, and GUI for HTML are regularly utilized interfaces.

1.2 Tasks and Functionalities of SAP Basis:

SAP Basis can deal with the beneath undertakings and functionalities -

- Apparatuses for approval and profile the board are utilized to check that all clients have the fitting access advantages.
- To make online stores and gateways, use business worker pages.
- All SAP frameworks and applications should be introduced and designed.
- CCMS (Computing Center Management System) is utilized to monitor R/3 alarms.
- framework from a particular framework
- The plan and arrangement of a customer worker framework. • Using devices to screen and oversee data sets.
- Planning a graphical UI for the show layer.
- Overseeing assets.
- Information reinforcement and rebuilding.
- Enhancement of execution
- Investigating is the way toward distinguishing and settling issues.
- Controls the execution of group occupations.
- ABAP and JavaScript worker side prearranging. Instruments are utilized to screen and oversee the framework.
- SAP's transportation board framework should be designed (TMS).

CHAPTER 2:

System Landscape & Architecture

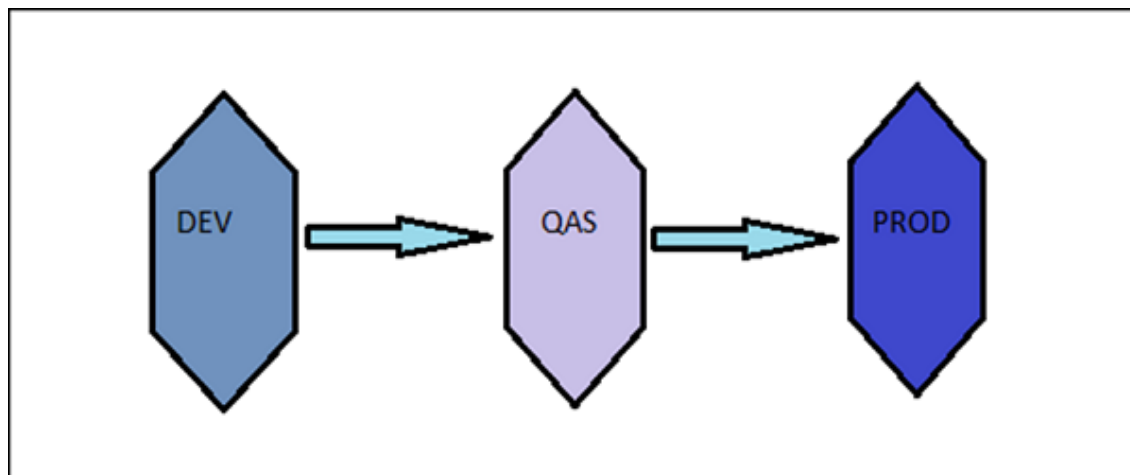
The SAP framework scene is an assortment of SAP workers. A three-framework scene is ideal in a Sap climate. The Development Server (Dev), Production Server (PROD), and Quality Assurance Server (QA) make up a framework scene (QAS).

Rather than the framework scene, SAP Architecture is described as a specialized establishment for SAP frameworks that changes over the long run. With new programming, for example, SAP ECC 6.0, the SAP design is created.

The accompanying shows the solicitation in SAP System Landscape –

Advancement >>>> Quality >>>> PRODUCTION

The accompanying picture addresses the.SAP three level framework scene in which the work processes from Dev > QAS > PROD. This doesn't happen the retrogressive way.



Sandbox Server

Right when an undertaking is first done, a sandbox laborer is utilized to execute the sum of the customization and plan. At that point, save the plan on the progression specialist and store it in workbench requests, which should then be moved to the creation laborer.

Sandbox Server

At the point when a task is first carried out, a sandbox worker is used to execute the entirety of the customization and arrangement. Then, save the design on the advancement worker and store it in workbench demands, which should then be moved to the creation worker.

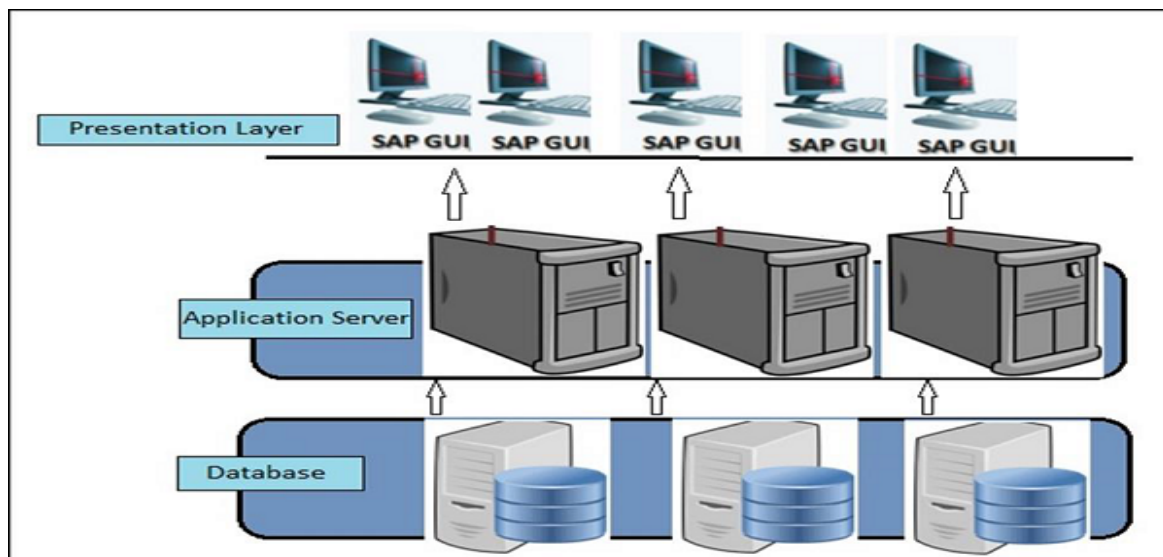
SERVER IN PRODUCTION

At the point when a task is underway/goes live, you may consider it the last or most cleaned Step where the work is finished. The entirety of the adjustments that the client requires are made in the DEV climate, and afterward the solicitation is moved to creation.

2.1 SAP System 3 – Tier Architecture

The picture given underneath shows the 3-level engineering of the SAP framework. The show layer is the highest one. The show layer contains the gadget/application that controls the SAP framework. This can incorporate cell phones, end-client frameworks or SAP GUI, or internet browser-based customers.

Exactly when an endeavor is in progress/goes live, you may think of it as the last or most cleaned Step where the work is done. The aggregate of the changes that the customer requires are made in the DEV environment, and a while later, the sales are moved to creation



SAP System 3 – Tier Architecture

The image given under shows the 3-level plan of the SAP structure. The show layer is the most elevated one. This contains the device/application to control the SAP structure. This can fuse phones, end customer structures or SAP GUI or web program based clients.

- The Presentation layer interfaces with the application worker, which is the mind of a SAP framework, to do all preparing.
- A three-level engineering's application worker consists of numerous occasions that interface with the data set layer.
- The data set layer is at the lower part of the stack. This is responsible for putting away the entirety of the information. For speed and security reasons, SAP's data set is housed on a different worker.
- The show layer is composed of numerous ABAP and JAVA parts that permit information to be sent and handled in the SAP framework.

Coming up next are the absolute most significant components of the show layer:

- The Message Server in the ABAP framework is utilized to organize correspondence between conveyed dispatchers.
- The Message Server is the place where worker cycles and JAVA dispatchers are overseen. It's utilized to monitor JRE's correspondence.
- Various work measure types are put away in the Dispatcher Queue.
- The dispatcher is utilized to convey solicitations to the different work measures.
- Memory Pipes is a component that permits ICM and ABAP work cycles to speak with one other.
- The sensible locks set up by the run Java application program are taken care of by the Enqueue Server.

Systems, Applications & Products in Data Processing ECC 6.0 ides SR2 foundation will be done generally in 20 hours with the above plan. The foundation time can be diminished further by updating hardware configuration like quad 2 focus processor with 8 GB hammer and 1 TB Hard Disk Drive.

CHAPTER 3

Systems, Applications & Products in Data Processing ECC 6.0 installation

To instal SAP ECC 6.0, follow these Steps:

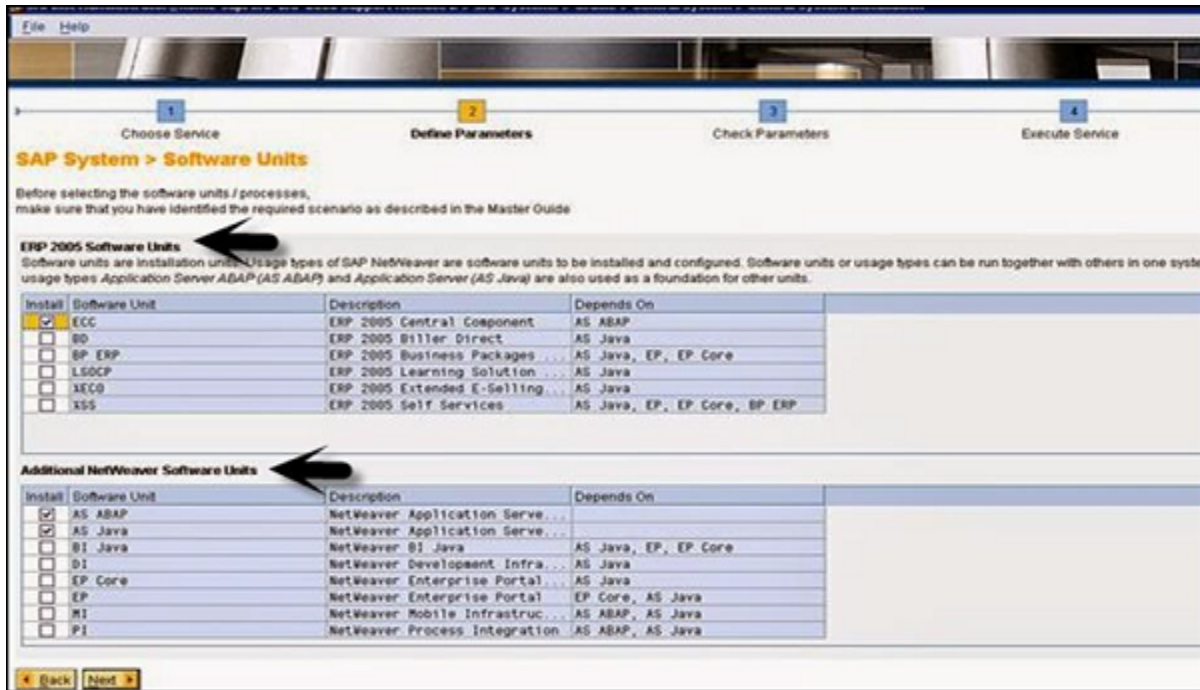
Step 1: Install the database as needed. The minimum requirement is Java JDK 1.4. Run SAPinst.exe after copying the programme to your local disc. The wizard for setting up your computer will appear.



Step 2 – Choose the help that you need to introduce — Central System Installation > Choose the Service Type – Typical or Custom > Next



Step 3: Select the ECC programming units you wish to introduce, for example, Biller Direct and additional NW programming units, for example, AS ABAP, etc.



Step 4: Fill in the SAP System ID and Installation Drive data. Your SAP framework's SAP System ID is a one of a kind recognizable proof. It should be unmistakable over the entire framework scene. Enter an expert secret word that will be utilized to make all client accounts..



Step 5: Fill in information base boundaries like the DBSID of a current data set, the host name, etc.



Step 6 – Perform prerequisite check.



Step 7 – Click Next > OS Password.



Step 8 – Enter the focal instance number, This number should be unique for this establishment.

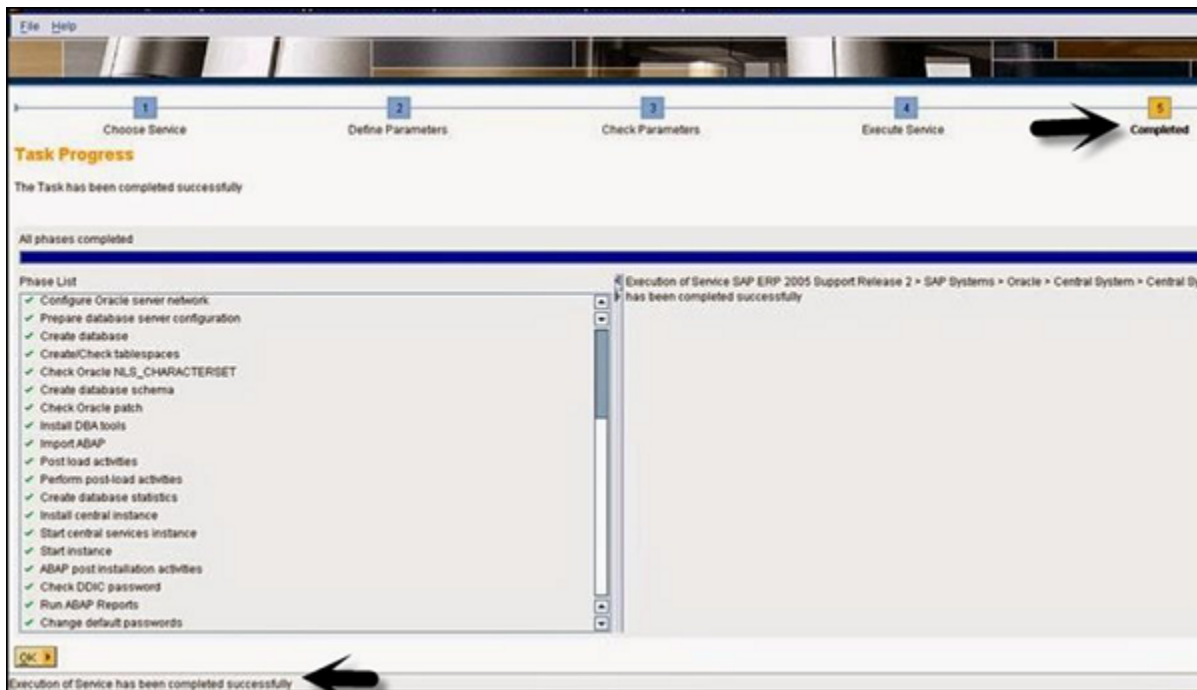
Step 9: The framework currently shows the port numbers.

Central Instance Parameters	
ABAP Messaging Service Port	3600
Internal ABAP Messaging Service Port	3900
Host with Transport Directory	node-sap
Additional Information The instance-specific Internal ABAP Messaging Service Port for internal communication and the ABAP Messaging Service Port are required as a unique communication channel.	

Step 10: When you click Next, you'll see an outline of the establishment.

Step 11: To finish the establishment and update, enter the Solution Manager key.

Step 12: You will get the accompanying affirmation after the establishment is finished.

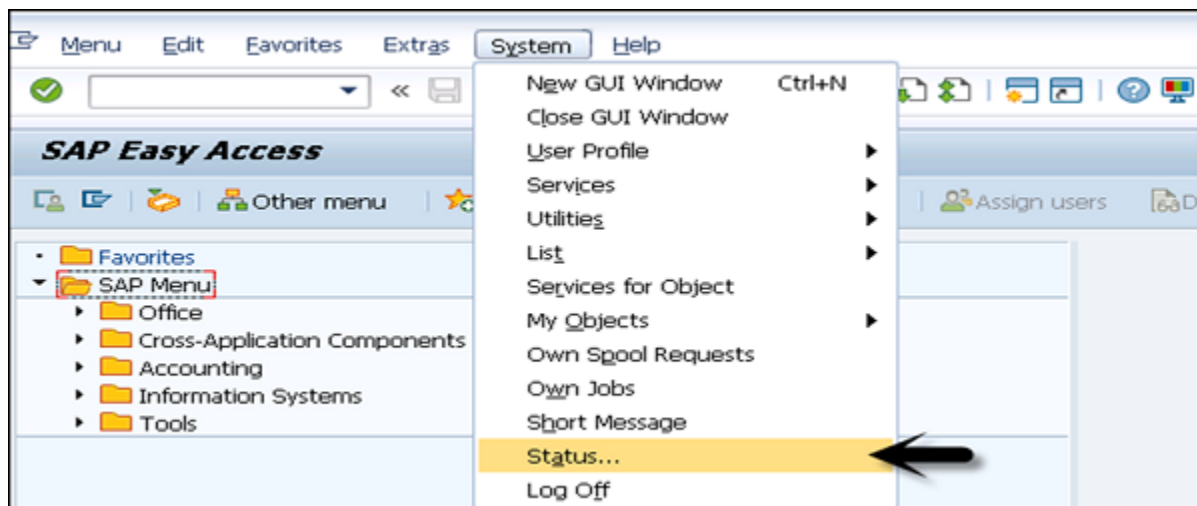


The main aspects of the SAP system are as follows:

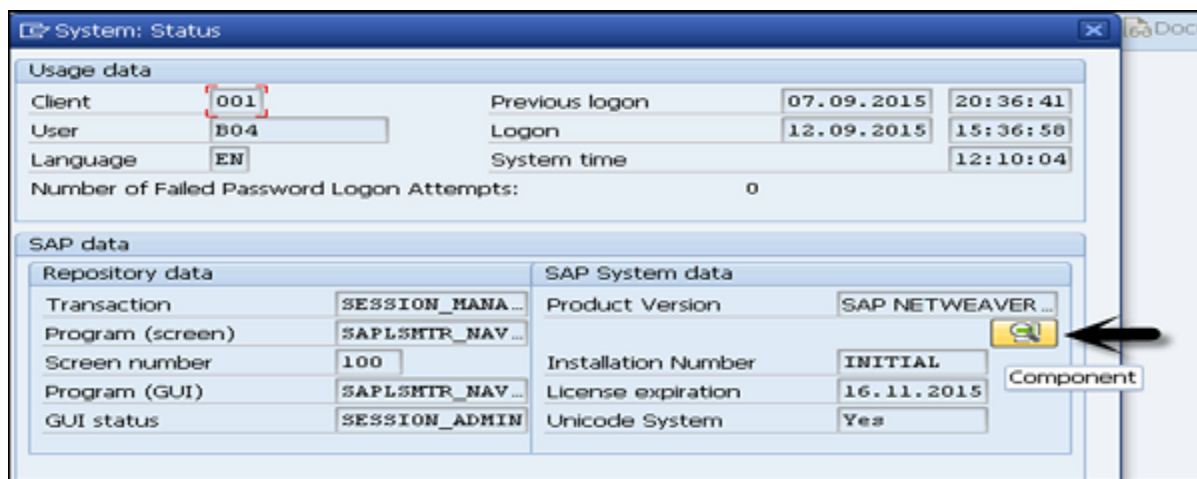
- Application Server Database Server
- Additional Servers
- NetWeaver software components
- Systems, Applications & Products in Data Processing's graphical user interface
- Maintenance Certificates and License Keys
- Package of Improvements
- Plans for improvement
- Integration of SAP Solution Manager

- You must verify the list of presently installed software component versions in SAP system by going to SAP GUI and selecting the system.

Choose System in SAP Status <System> logon click Component Information icon under system data.



Go to SAP framework information → Click on part amplifying glass.



You can see the accompanying two alternatives –

- Introduced software component forms
- Introduced item forms

Installed Software

Installed Software Component Versions Installed Product Versions

Component	Release	SP-Level	Support Package	SPP-Level	Support Package Patch	Type	Short Description of Component
SAP_BASIS	740	0008	SAPKB74008	0000	-	⚙️	SAP Basis Component
SAP_ABA	740	0008	SAPKA74008	0000	-	⚙️	Cross-Application Component
SAP_GWFND	740	0008	SAPK-74008INSAPGWFND	0000	-	⚙️	SAP Gateway Foundation 7.40
SAP_UI	740	0009	SAPK-74009INSAPUI	0000	-	⚙️	User Interface Technology 7.40
PI_BASIS	740	0008	SAPK-74008INPIBASIS	0000	-	⚙️	Basis Plug-In
ST-PI	740	0000	-	0000	-		SAP Solution Tools Plug-In
BI_CONT	757	0000	-	0000	-		Business Intelligence Content
SAP_BW	740	0008	SAPKW74008	0000	-	⚙️	SAP Business Warehouse

CHAPTER 4:

Systems, Applications & Products in Data Processing Basis - SAP Client Administration

A customer is utilized inside the SAP framework for numerous login qualifications for a solitary case. You can make a few customers on a solitary occasion. It likewise gives information security by keeping one client with one customer from perusing the information of another client with an alternate customer. Besides, the framework doesn't need to be introduced for every individual client.

The Client Concept's Advantages

- The customer's idea incorporates the accompanying:
- As you can set up a few customers for the DEV, QA, and PROD groups, you can deal with the SAP framework scene.
- Your SAP framework might be imparted to a more extensive scope of clients.
- One can likewise make customers in the SAP framework from 000-999.

Three ordinary customers are incorporated with the SAP framework:

This is known as the expert customer, and it is accessible when you introduce the R/3 framework.

001 Client customer is a copy of 000 Client, except for the test organization. Typically, this customer is utilized to make new customers.

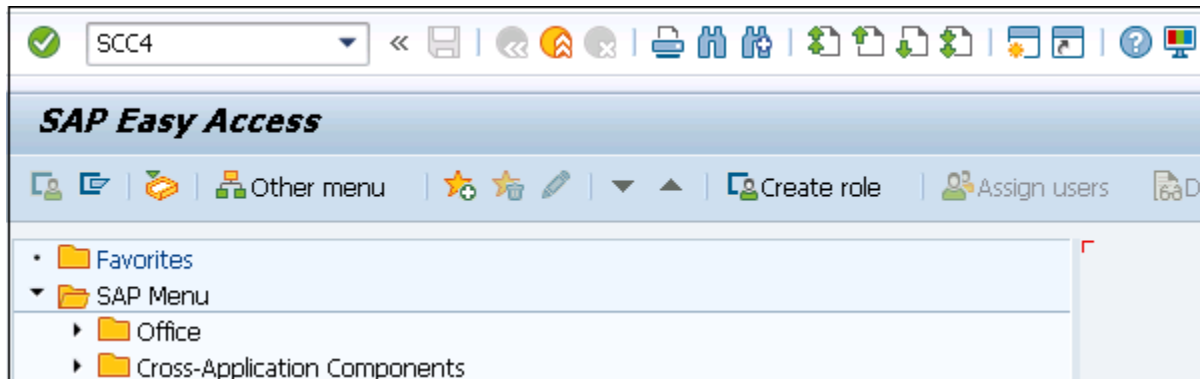
066 Client is SAP Early Watch, and it's utilized for symptomatic sweeps and SAP framework observing.

Client	Name	City	Crcy	Changed on
000	SAP AG Konzern	Walldorf	EUR	
001	SAP AG Konzern	Walldorf	EUR	12.09.2015
066	Test EarlyWatch Profiles	Walldorf	EUR	20.06.2003

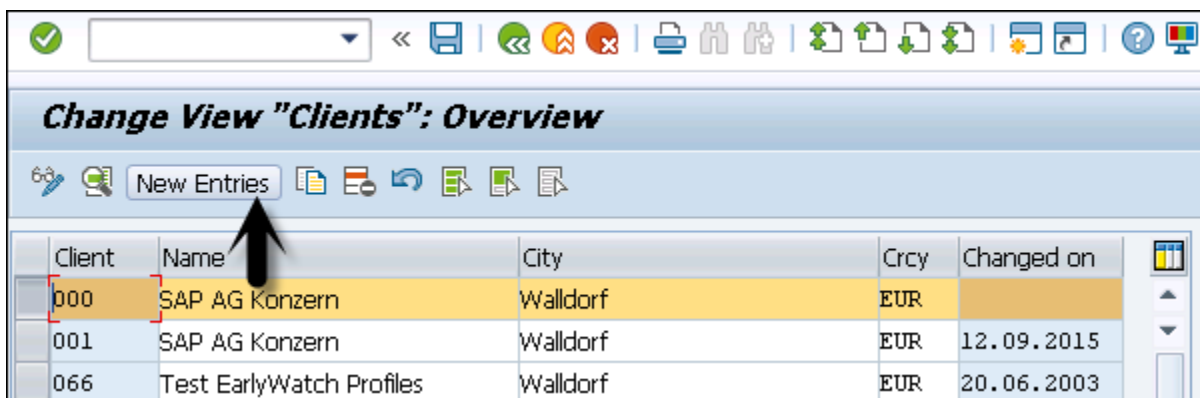
Steps to Create a New SAP Client

To make another customer in the SAP framework, follow these means.

Step 1: Begin with exchange code SCC4.



Step 2: After tapping on New Entries, fill in the accompanying data to set up another customer.



- Customer number and name
- City
- Cash, Roles

Step 3: Fill in your customer data and design authorizations for the customers on a case by case basis, at that point click Save.

New Entries: Details of Added Entries

Client: 100 Dev

City: Londin

Logical system: Z_ABCD_HT

Std currency: EUR

Client role: Test

Last Changed By: []

Date: []

Changes and Transports for Client-Specific Objects

Changes without automatic recording

Automatic recording of changes

No changes allowed

Changes w/o automatic recording, no transports allowed

Cross-Client Object Changes

Changes to Repository and cross-client Customizing allowed

Client Copy and Comparison Tool Protection

Protection level 0: No restriction

CATT and eCATT Restrictions

eCATT and CATT Not Allowed

Step 4: Go to Transaction SCC4 > Display > New Client in the Display Client rundown to add another customer.

Display View "Clients": Overview

Client	Name	City	Crcy	Changed on
000	SAP AG Konzern	Walldorf	EUR	
001	SAP AG Konzern	Walldorf	EUR	12.09.2015
066	Test EarlyWatch Profiles	Walldorf	EUR	20.06.2003
100	Dev	Londin	EUR	12.09.2015

Framework that is both neighborhood and remote. Existing customers can likewise be replicated across nearby and far off framework IDs.

Step1-To make a copy of a current customer, follow these means. The exchange code for making a duplicate of a customer in nearby SID is SCCL.



Step 2 – Enter the accompanying subtleties – Pick your ideal profile, at that point fill in the source customer and depiction fields.

Client Copy - Copy a Client

Schedule as Background Job Start Immediately

Target Client 001 SAP AG Konzern

Selected Profile SAP_CUST

Description Customizing

Source Client 000 P AG Konzern

Test Run

Step 3 – The customer duplicate is led in a solitary cycle as a matter of course, yet you can part the responsibility across various cycles to diminish replicating time.

Client Copy - Copy a Client

Schedule as Background Job Start Immediately

Target Client 001 SAP AG Konzern

Selected Profile SAP_CUST

Description Customizing

Source Client 000 P AG Konzern

Test Run

Request Copy F7

Delete Client F9

Log Display

Parallel Processes Shift+F1

REC Destinations

Back F3

Step 4 – It can require some investment to duplicate a customer. Therefore, this interaction can be directed behind the scenes.

Client Copy - Copy a Client

Schedule as Background Job Start Immediately

Target Client 001 SAP AG Konzern

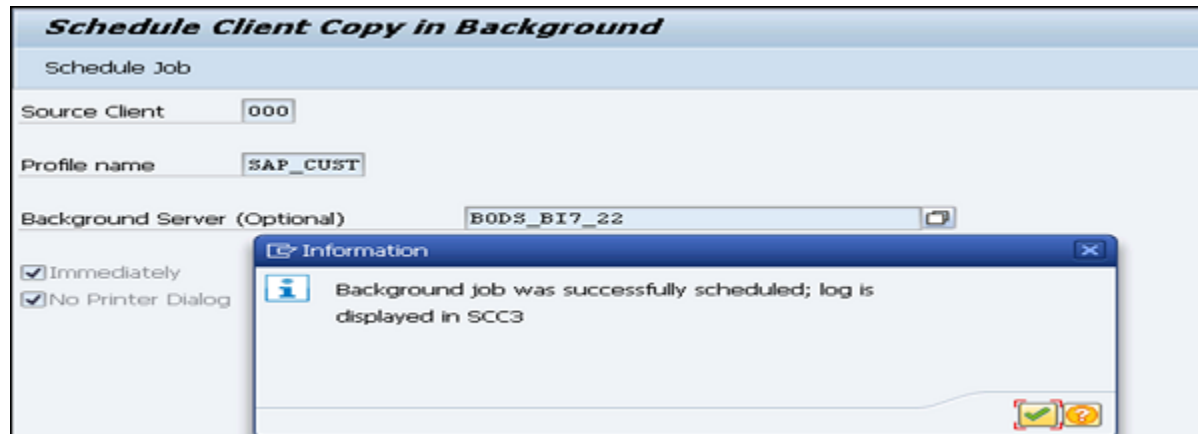
Selected Profile SAP_CUST

Description Customizing

Source Client 000 P AG Konzern

Test Run

Step 5 – SCC3 can be utilized to check the logs, exchange code —



Controller System

Utilizing exchange code — SCC9, you can make a duplicate of the customer in the inaccessible framework. This framework utilizes the SM59 Trusted RFC association.

You can enter a similar data with respect to a nearby customer duplicate, and you can decide to run the duplicate behind the scenes.

T-code — SCC3 can be utilized to assess the logs.

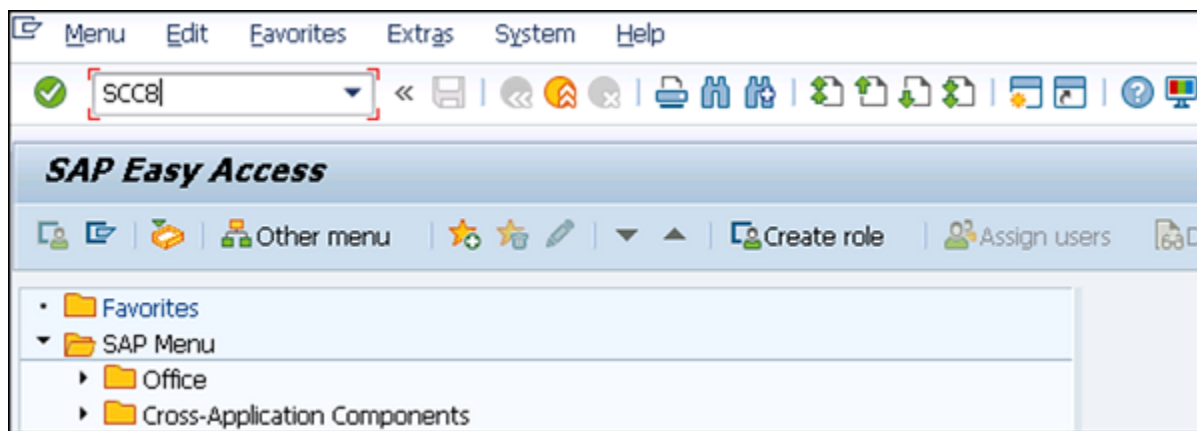
Client Copy/Transport Log Analysis							
Delete Log All Clients All Transport Requests Exports Transport Requests							
Client Copies in Client 001 : 1							
Date	Time	Source	Status Text	Profile	Mode	Test mode	
12.09.2015	18:10:45	000	Successfully Completed	SAP_CUST	Local		

4.1 Importing and sending out

At the point when the data set size is enormous, it is constantly prescribed to utilize the import/send out alternative for customer duplication.

To send out a customer, follow these means.

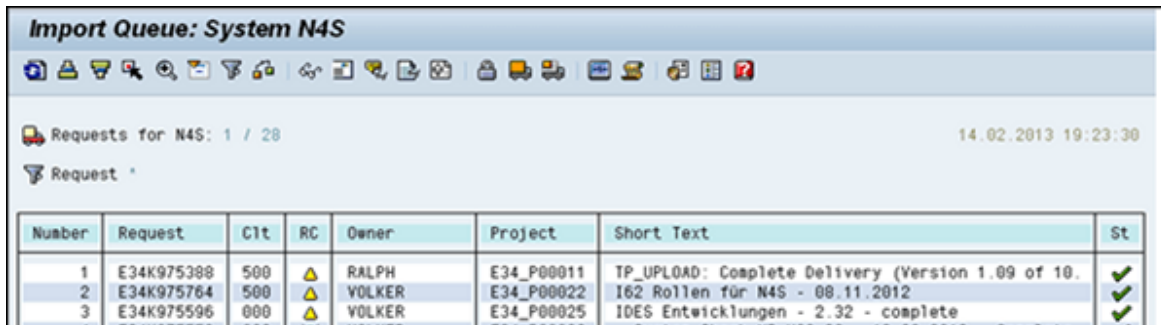
Step 1: Log on to the objective framework and use exchange code SCC4 to build up another objective customer passage. Use exchange code SCC8 to perform send out for moving information documents to the objective framework import cradle.



Step 2: Pick a profile and a framework to target. The fare technique can be planned to run behind the scenes. It produces a few vehicle demands in the accompanying areas, contingent upon the fare type. –

- To monitor cross-customer data.
- To store information that is relying upon the customer.
- To store information that is relying upon the customer.
- Presently, follow these means to import a customer –

Step 1 – If you utilize the exchange code STMS IMPORT to import a customer, you will see an import line.



Import Queue: System N4S

Requests for N4S: 1 / 28 14.02.2013 19:23:30

Request

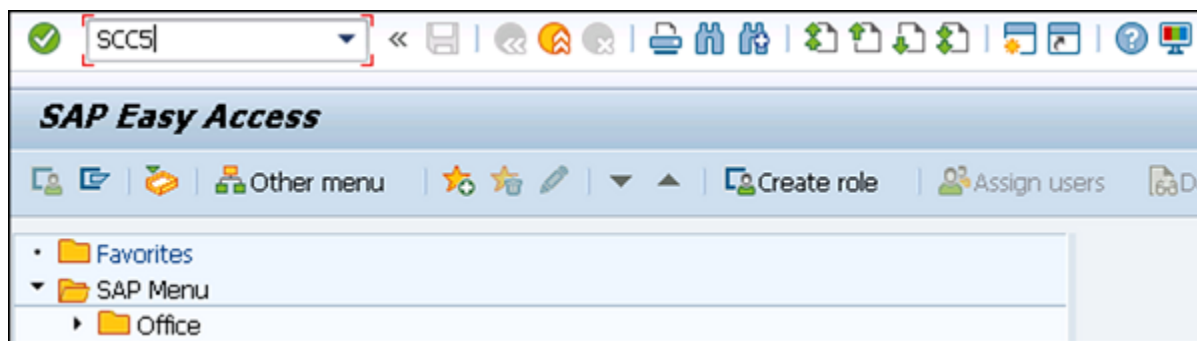
Number	Request	CIt	RC	Owner	Project	Short Text	St
1	E34K975388	500	▲	RALPH	E34_P00011	TP_UPLOAD: Complete Delivery (Version 1.09 of 10.	✓
2	E34K975764	500	▲	VOLKER	E34_P00022	162 Rollen für N4S - 08.11.2012	✓
3	E34K975596	000	▲	VOLKER	E34_P00025	IDES Entwicklungen - 2.32 - complete	✓

Step 2 – Select the vehicle demands that were produced during the fare activity to start the import strategy. After you've finished the import, apply the exchange code SCC7 to complete the post-import Step. The exchange code SCC3 can be utilized to confirm import logs.

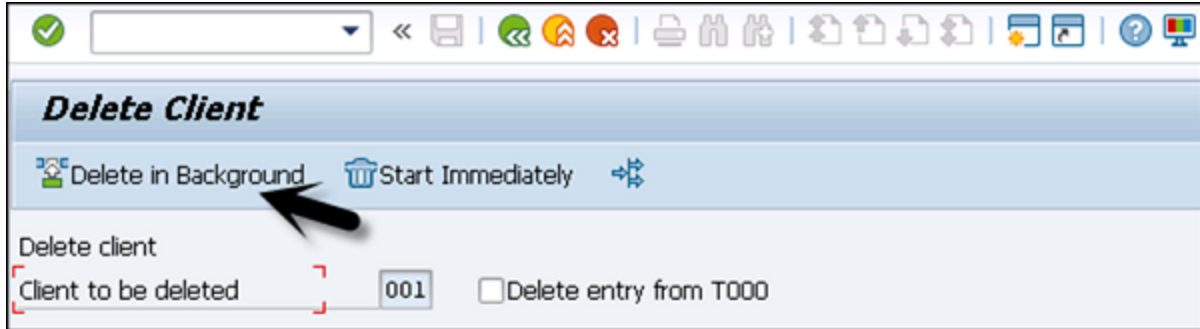
4.2 Deleting of a Client

To erase a customer from the SAP framework, follow these methodology.

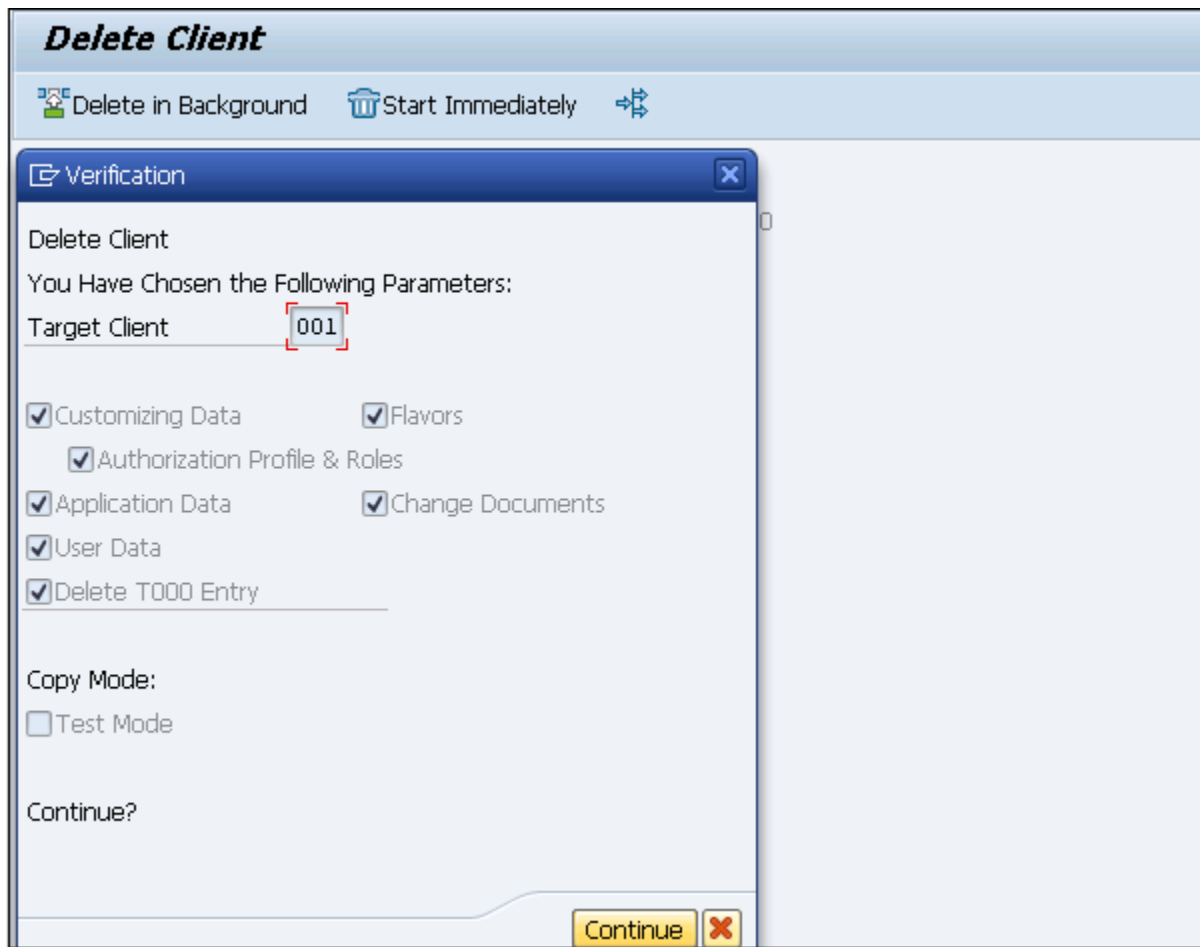
Step 1: Type SCC5 for the exchange code. Run the test in SAP Easy Access.



Step 2 – Choose the customer you need to dispose of. You have the choice of choosing > erase behind the scenes or beginning right away. All customer sections made with Transaction SCC4 are put away in Table T000. You can likewise decide to eliminate the customer's table section.



Step 3 – You see the accompanying window, when you select beginning right away.



Step 4 – Continue to finish the cancellation.

CHAPTER 5:

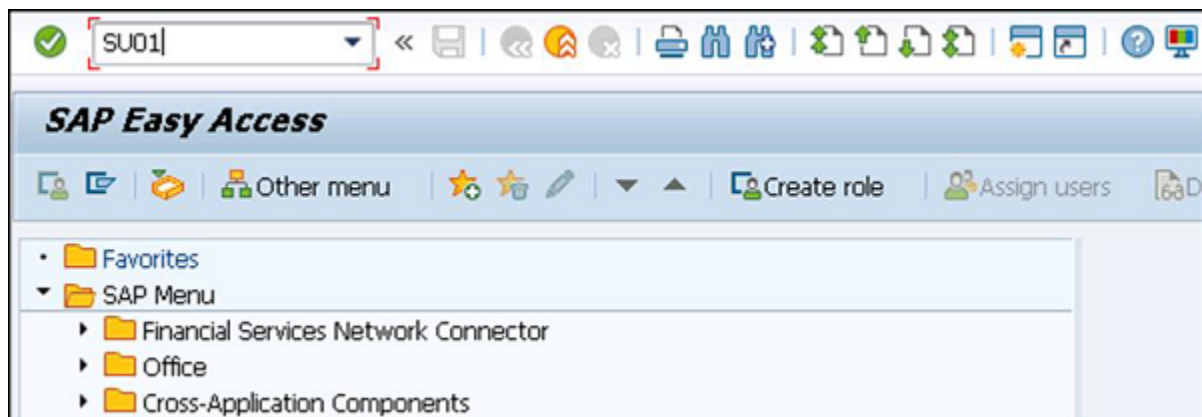
Systems, Applications & Products in Data Processing Basis - User Activities

5.1 User creation

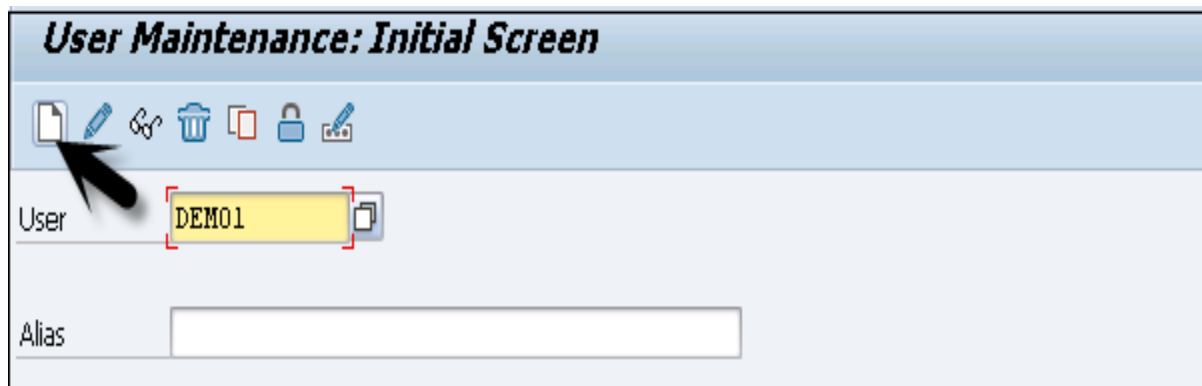
This chapter explains how to create SAP user accounts.

To make another customer in the SAP framework, follow these means.

Step 1: Enter the SU01 T codes



Step 2 – Enter the username you wish to make and afterward click the make symbol, as found in the screen capture beneath.



Step 3 – You'll be taken to the accompanying tab, which is the Address tab. You should fill in data like your first and last names, telephone number, and email address.

Maintain Users

User: DEMO1
 Changed By: HUETT | 02.07.2012 16:38:46 | Status: Saved

Address | Logon Data | SNC | Defaults | Parameters | Roles | Profiles | Groups

Person

Title: Mr.
 Last name: DEMO1
 First name:
 Academic Title:
 Complete name: DEMO1
 Language:
 [P-3]

Work Center

Function:
 Department: ABC
 Room Number:
 Floor:
 Building code:
 [P-3]

Communication

Telephone: 999999 | Extension:
 Mobile Phone:
 Fax:
 E-Mail Address:
 [P-3]

Step 4 – After that, you'll be directed to the accompanying tab, Logon Data. Under the Logon data tab, enter the client type. There are five unique kinds of clients.

Maintain Users

User: DEMO1
 Changed By: HUETT | 02.07.2012 16:38:46 | Status: Revised

Address | Logon Data | SNC | Defaults | Parameters | Roles | Profiles | Groups

Alias:
 User Type: Dialog
 Security Policy:
 Password:
 New Password Rule:
 New Password:
 Repeat Password:
 Password Status: Productive Password
 [P-3]

User Group for Authorization Check

User group: DEMO | User for Demo Systems:
 [P-3]

Validity Period

Valid from:
 Valid through:
 [P-3]

Other Data

Account no.:
 [P-3]

Following are the distinctive client types:

- Dialog user – It is utilized for intuitive framework access from GUI.
- System use – This kind of client is utilized for foundation preparing, correspondence inside a framework.
- Communication user– This client type is utilized for outer RFC calls.
- Service user – This client type is made for a bigger and mysterious gathering of clients.
- Reference client –This client type doesn't permit login to the framework. It is utilized for general, non-individual related clients that permits the capacity of a few extra approvals.

Step 5 –Fill in your first Login Password > Create another secret phrase

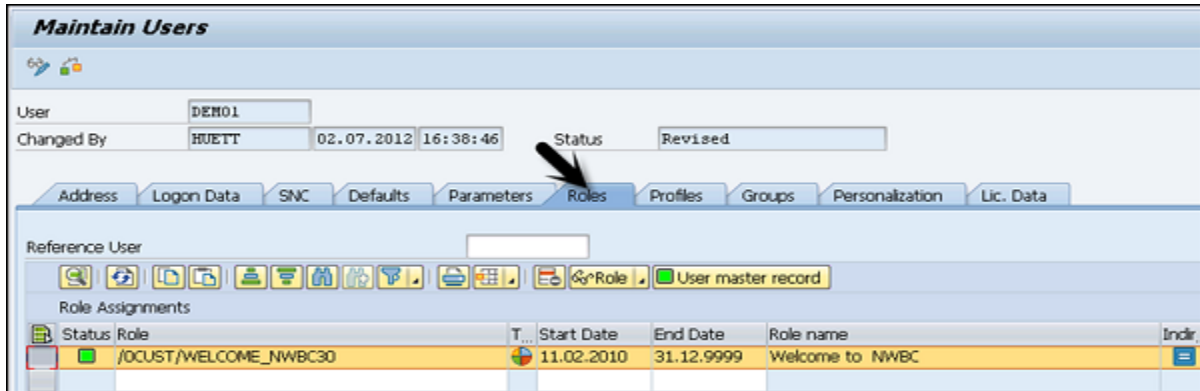
The screenshot shows a user configuration window with the following fields and actions:

- Alias:** An empty text input field.
- User Type:** A dropdown menu currently set to "Dialog".
- Security Policy:** An empty text input field.
- Password Section:**
 - New Password Rules (Case-Sensitive):** A button with a gear icon.
 - New Password:** A text input field containing asterisks, with a black arrow pointing to it from the right.
 - Repeat Password:** A text input field containing asterisks, highlighted with a yellow background and a red border.
 - Password Status:** A label showing "Productive Password" with an information icon to its right.

Step 6 – The following tab — Roles — will be opened for you.

Allocate the client with the suitable jobs.

Step 7 – You'll then, at that point be taken to the following tab, Profiles, where you can appoint Profiles to clients.



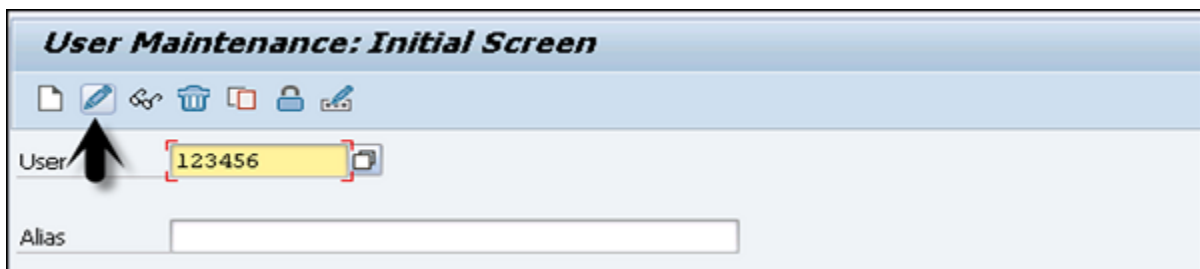
Step 8 –To get affirmation, click Save.

5.2 To Reset Your Password

To reset your secret word, follow these means:

Step 1: Use exchange code SU01

Step 2: To modify the profile, enter the username and pick the change alternative gave on the top bar.



Step 3: You'll be taken to the accompanying tab, which is Logon Data.

Step 4: Fill in the new secret word and save it utilizing the upper right save symbol.

Maintain Users

User: 123456

Changed By: [] 14.10.2009 09:13:36 Status: Saved

Address Logon Data **SNC** Defaults Parameters Roles Profiles Groups

Alias: []

User Type: Service

Security Policy: []

Password

New Password Rules (Case-Sensitive) ←

New Password: [*****]

Repeat Password: [*****]

Password Status: Productive Password

Step 5: The accompanying affirmation you will get.

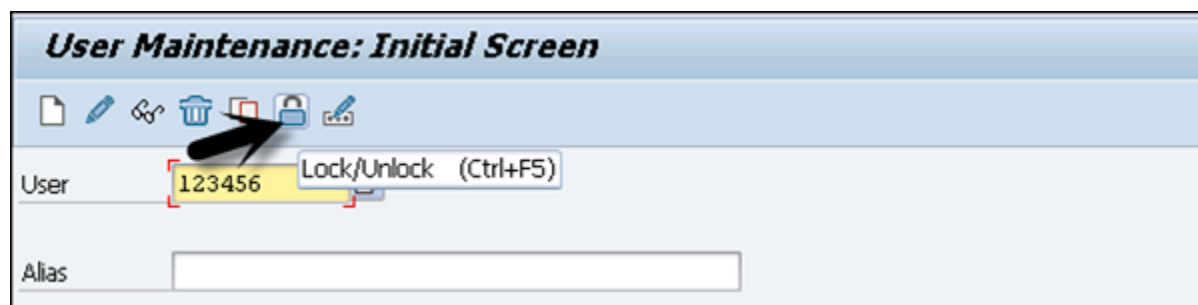
User 123456 has changed

A 5.3 How to bolt or open User

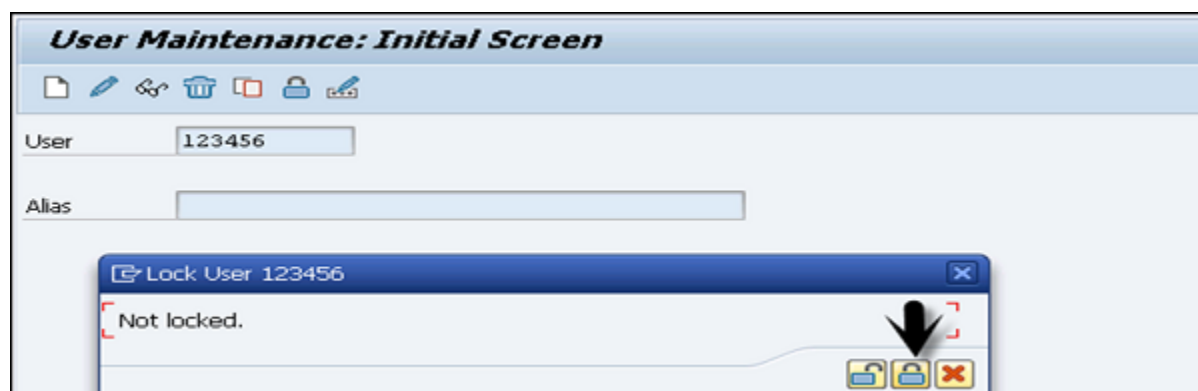
A manager in the SAP framework can likewise bolt or open a client dependent on their necessities. This should be possible for a set measure of time or inconclusively. A client can be secured or opened one of two different ways: physically or coercively.

- Self-rulingly
- Strongly or physically

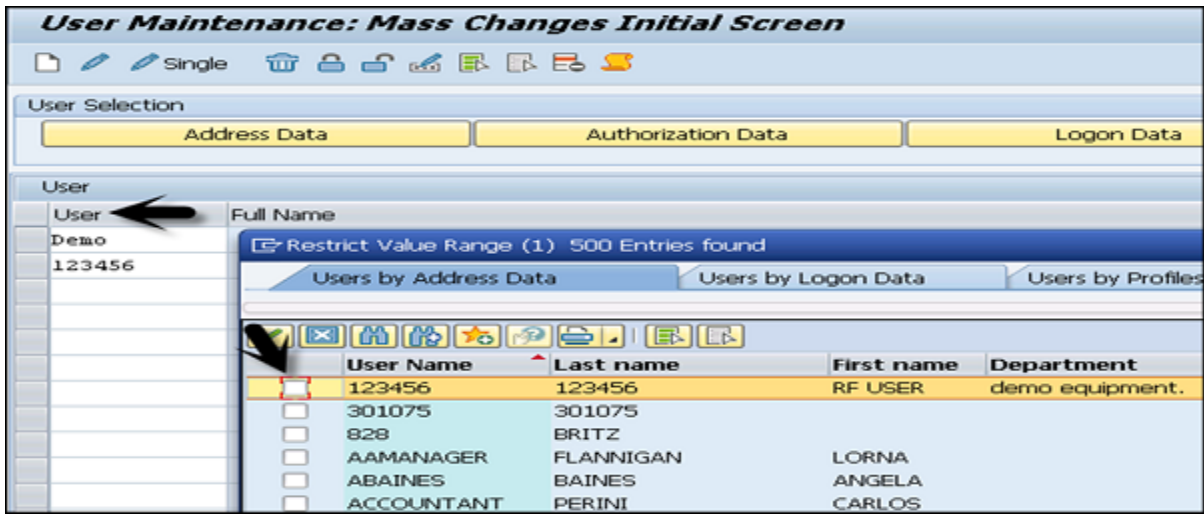
These exchange codes can be utilized to secure a client coercively or naturally.
SU01 is the exchange code for wrongdoing.



Step 3: Click on lock/open option. You will presently see the current status of the client.



Step 4 – Use exchange code SU10 and info the clients' usernames in the username rundown to bolt various clients. To pick numerous clients without a moment's delay, snap and search, and you'll be offered the chance to pick various individuals on the double.



Step 5 – As required, select the bolt and open image at the top. This can be utilized to open at least one clients utilizing a similar exchange code.

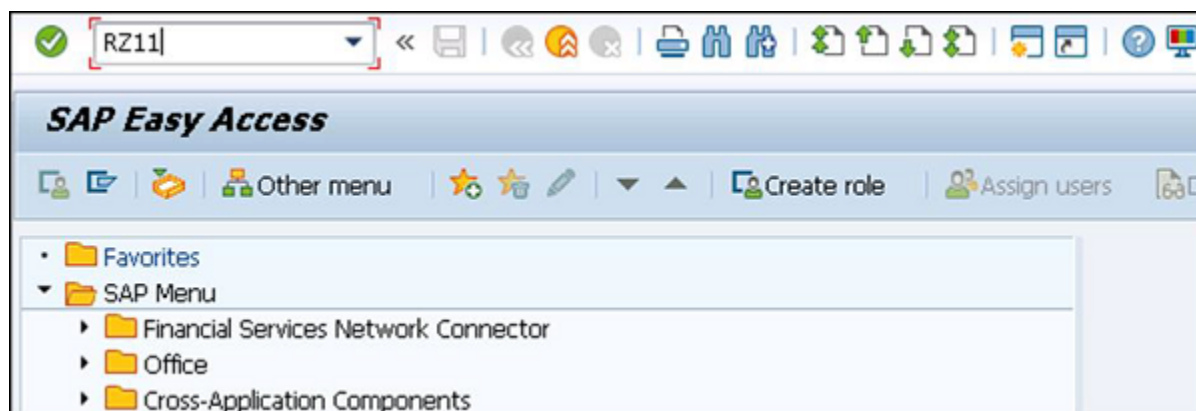
CHAPTER 6:

Systems, Applications & Products in Data Processing Basis - Number of Login Attempts

In the event that the boundary esteem is set by the director, the framework will stop the meeting or lock the client account after a specific number of fizzled login endeavors. To restrict the quantity of login endeavors, the accompanying two settings are utilized. –

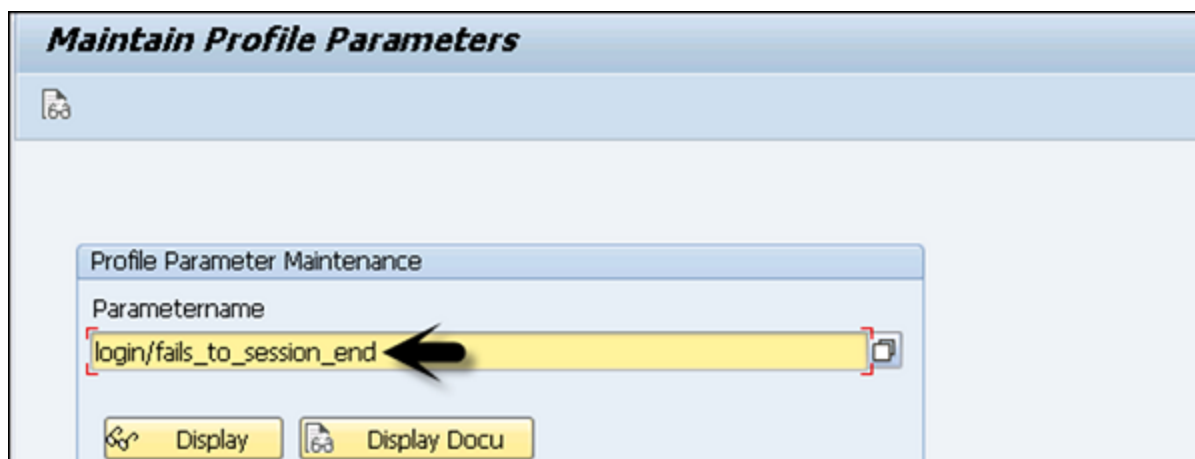
Static This boundary doesn't produce results immediately. For this, the framework should be restarted.

This boundary can be applied straightforwardly to the framework without the requirement for any extra programming.



Step 2: Type the parameter's name and select Display from the drop-down menu. Click Edit to make changes to a parameter.

Step 3: Enter the parameter name — login/fails to session end — to specify the number of failed attempts. Parameters with any name can be used.



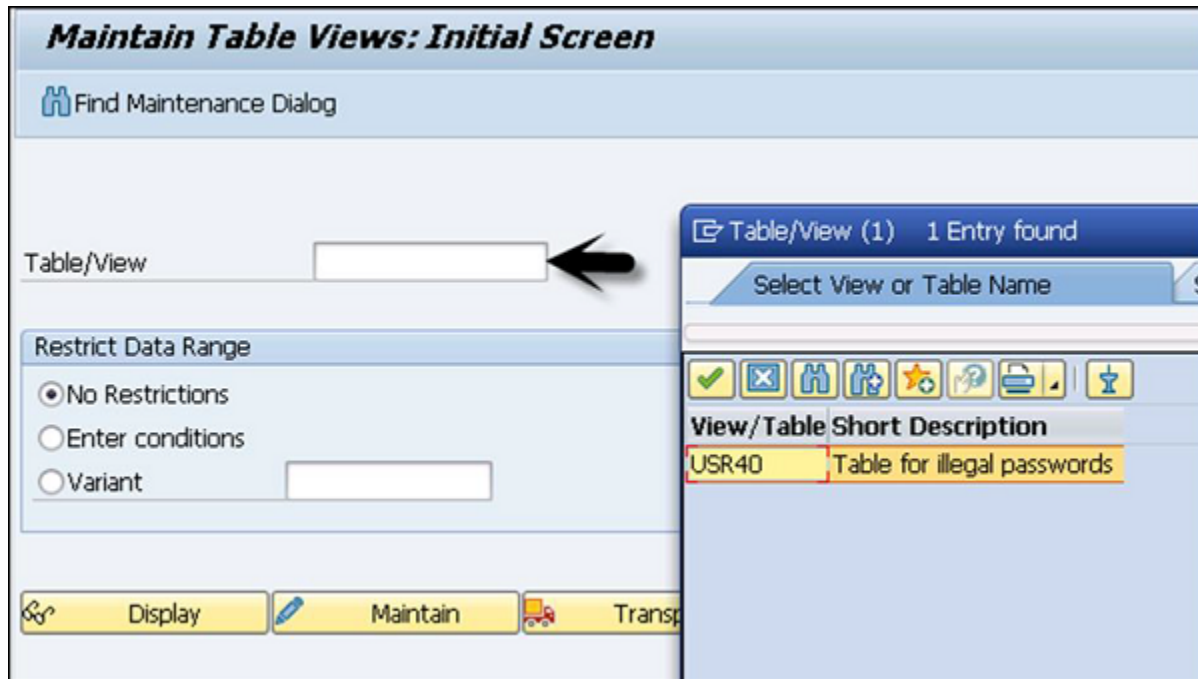
Step 4 – Click on Display, To check the current policy.

Metadata for Parameter login/fails_to_session_end	
Description	Value
Name	login/fails_to_session_end
Type	Integer
Further Selection Criteria	
Unit	
Parameter Group	Login
Parameter Description	Number of invalid login attempts until session end
CSN Component	BC-SEC-LGN
System-Wide Parameter	No
Dynamic Parameter	No
Vector Parameter	No
Has Subparameters	No
Check Function Exists	No
Current Value of Parameter login/fails_to_session_end	
Expansion Level	Value
Kernel Default	3
Standard Profile	3
Instance Profile	3
Current Value	3

Significant boundaries to keep login endeavors to a base

- Login/neglects to meeting end ogin/neglects to meeting end ogin/falls flat to_ The occasions a client can include an invalid secret phrase before the framework ends the logon endeavor is characterized by this boundary. The worth of the boundary ought to be not exactly the worth of the boundary.
- login/neglects to client lock/neglects to client lock/neglects to client lock This choice indicates the greatest number of times a client can enter an invalid secret phrase before it is dismissed.

T codes — SM30



Select the table and then press the Display button. Put the password string in the box.

CHAPTER 7:

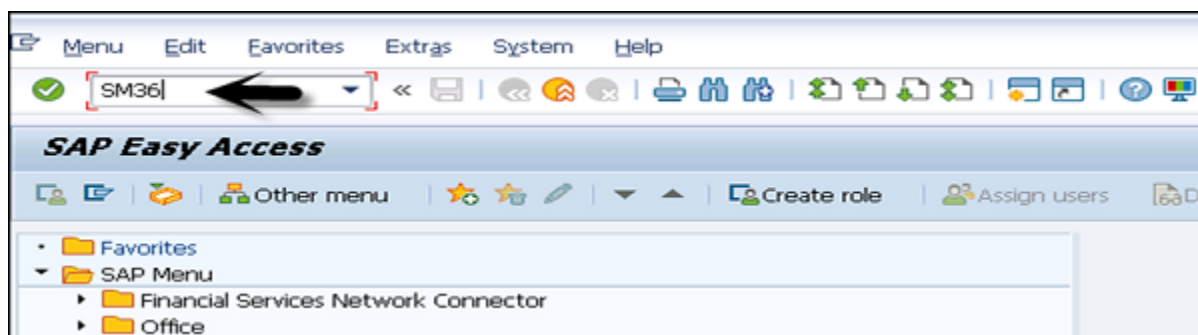
Systems, Applications & Products in Data Processing Basis - Job Processing

7.1 Executing Background Jobs in SAP

Establishment occupations in SAP system process in the background without impacting average exercises in the structure. These positions are used to diminish manual effort and to automated the cycle. They can run in the background with no customer incorporation and can be reserved to run when the structure load is low. Establishment occupations can be detached into three classes

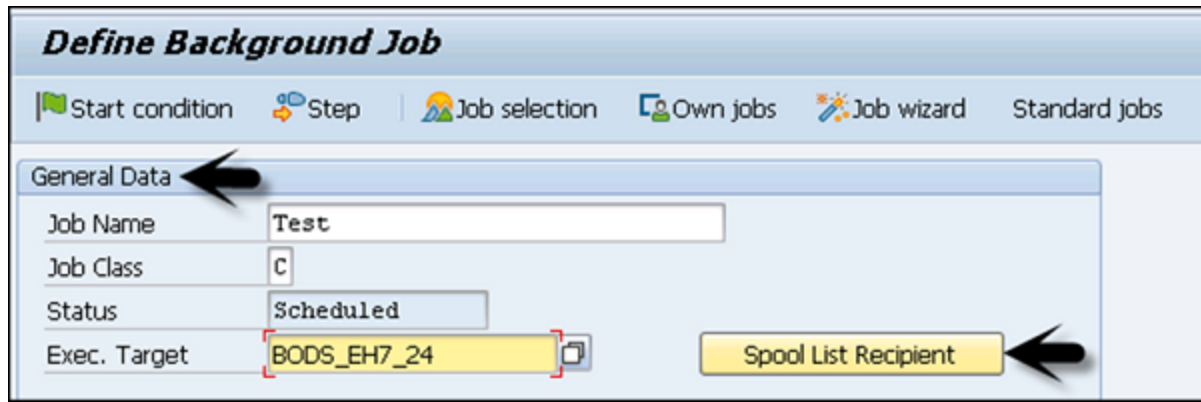
–

T Code SM36

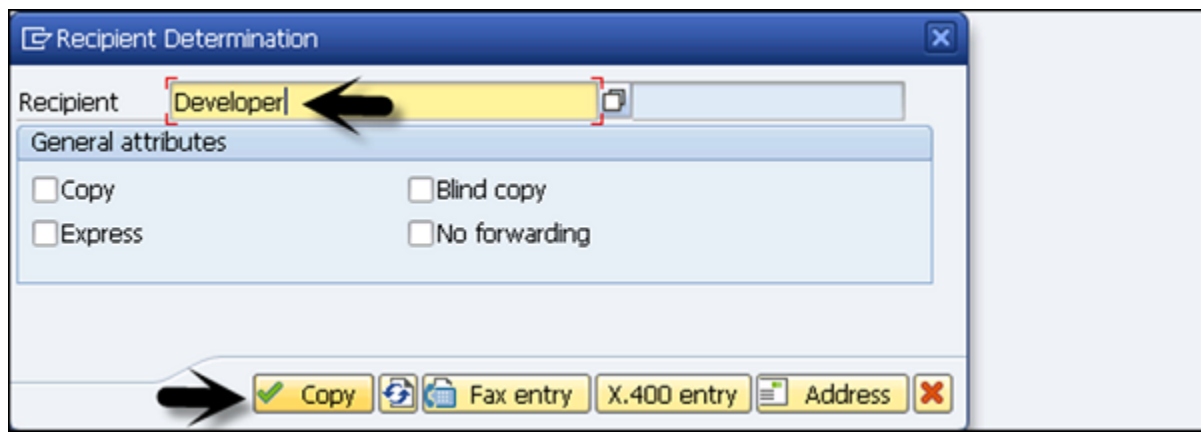


Data in general

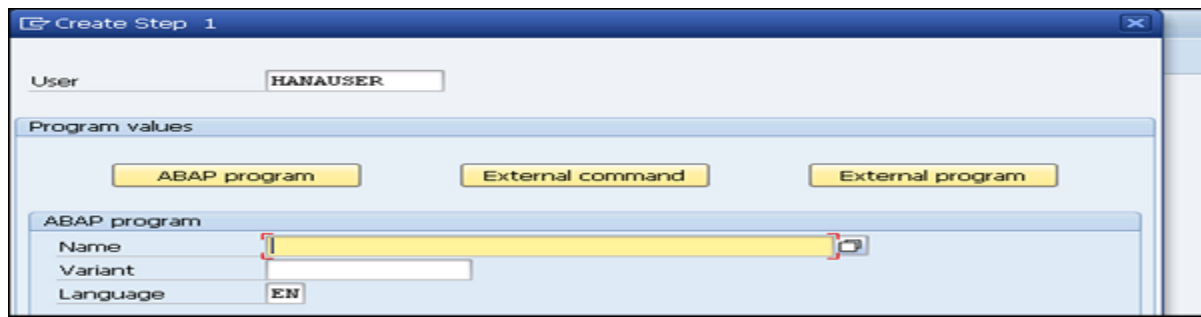
Fill in the job title and priority. Select the server on which you'd like to run the job. This is used to load balancing, and you can specify which server the job should run on.



If you want to get the results through email, use Spool List Recipient and input the email address.



Go to the Step Tab to define the execution Steps. In the field, type the name of the programme and the name of the variant. Leave it blank if you haven't built a version that meets your needs. Click the save button.



Step List Overview

✎ 📄 🖨️ 🔄 🗑️ 📄 Spool | 📄 ⏪ ⏩ ⏴ ⏵

No.	Program name/command	Prog. type	Spool list	Parameters	User	Lang.
1	/IACC/ARCH_____M85000B	ABAP			HANAUSER	EN

Enter the start date, end date, frequency, and so on to pass the start condition. If no start condition is specific, the job will remain in the scheduled state and will not run. The start condition can be defined in a variety of ways. Select the bottom box to create a recurring job.

Define Background Job

Start condition | Step | Job selection | Own jobs | Job wizard | Standard jobs

Start Time

Immediate | Date/Time | After Job | After Event | At Operation Mode

Date/Time

Scheduled Start	Date	<input type="text"/>	<input type="checkbox"/>	Time	<input type="text"/>
No Start After	Date	<input type="text"/>		Time	<input type="text"/>

After Job

At Operation Mode

After Event

Periodic Job

Check | Period values | Restrictions

After you've defined your schedule, click Save.

CHAPTER 8:

SAP BASIS- Monitoring a Background Job

Checking a foundation task is basic in the SAP framework since it very well might be dropped because of a mix-up after it has been booked.

To screen a foundation work, follow these means:

Step 1: Use exchange code SM37.

Step 2 To see the entirety of the positions delivered by this client, type * in the Job Name box and select the status. Likewise, depending on the situation, put it down on the calendar reach and afterward click Execute.

Simple Job Selection

Execute Extended job selection Information

Job Name *

User Name HANAUSER

Job Status

Sched. Released Ready Active Finished Canceled

Job Start Condition

From To 04.09.2015

From To

or after event:

Step 3: Upon completion, all jobs generated by the specified user that meet the selection criteria are presented.

Job name, Job Created By, Status, Start Date, Duration, Delay, and other information are displayed.

Job Overview

Refresh Release Spool Job log Step Application servers

Job overview from: 00.00.0000 at: : :
to: 04.09.2015 at: : :

Selected job names: *
Selected user names: HANAUSER

Scheduled Released Ready Active Finished Canceled

Event controlled Event ID: :
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
<input checked="" type="checkbox"/> CODE_INSPECTOR_DELETION			HANAUSER	Finished	30.08.2015	01:00:04	3	4
<input type="checkbox"/> CODE_INSPECTOR_DELETION			HANAUSER	Finished	31.08.2015	01:00:46	2	46
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:12	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:12	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:13	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:13	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:14	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:14	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:14	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:15	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:16	0	1
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:16	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:16	1	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:17	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:17	1	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:18	0	0
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08.2015	10:56:18	1	0
<input type="checkbox"/> TEST			HANAUSER	Released			0	0
*Summary							27	10.652

Step 4 – You can select the job and click on the Job Log button, to check the job log,

Job Overview

Refresh Release Spool Job log Step Application servers

Job overview from: 00.00.0000 at: : :
to: 04.09.2015 at: : :

Selected job names: *
Selected user names: HANAUSER

Scheduled Released Ready Active Finished Canceled

Event controlled Event ID: :
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start
<input type="checkbox"/> CODE_INSPECTOR_DELETION			HANAUSER	Finished	30.08
<input type="checkbox"/> CODE_INSPECTOR_DELETION			HANAUSER	Finished	31.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08
<input type="checkbox"/> DMC_DEL_OLD_FUGR			HANAUSER	Finished	30.08

8.1 SAP Basis - Deleting a Background Job

We have the ability to delete jobs from the SAP system. These jobs may no longer be needed and may take up a lot of system space. There are two methods for deleting jobs:

- Single Job

- Multiple Jobs

To delete a single job, follow these Steps: Step 1: Use T codes SM37.

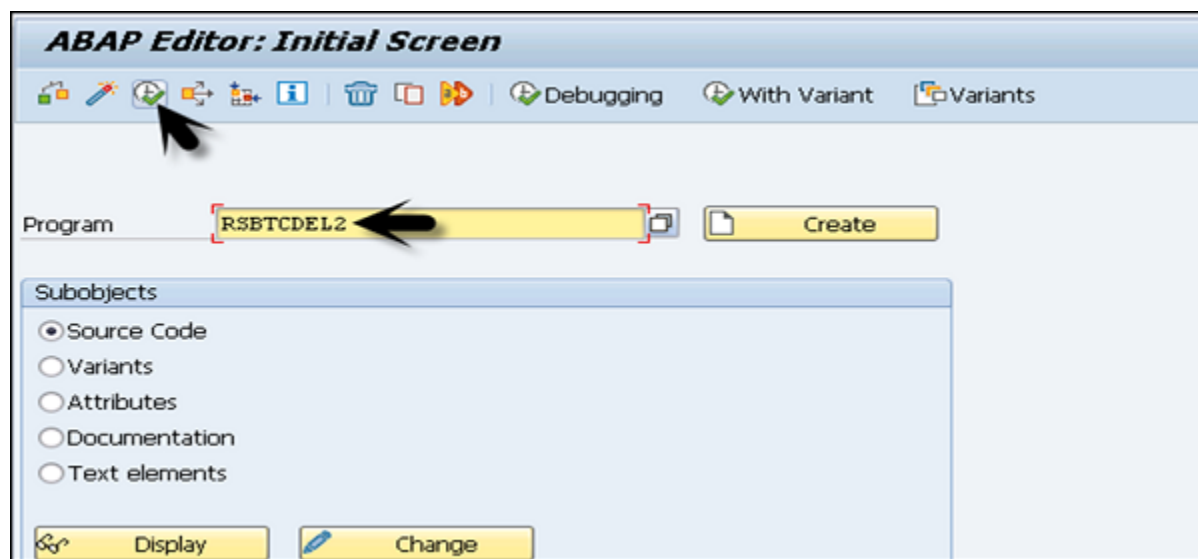
Step 2 To see all of the jobs produced by this user, type * in the Job Name box and select the status. Also, as needed, set a date range and then click Execute.

Step 3: Upon completion, all jobs generated by the specified user that meet the selection criteria are presented.

Job name, Job Created By, Status, Start date, Duration, Delay, and other information are displayed. Select the job from the database that you wish to remove and click Delete.

JobName	Spool	Job doc	Job CreatedBy	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
BI_WRITE_PROT_TO_APPLLOG			HANAUSER	Released			0	0
CODE_INSPECTOR_DELETION			HANAUSER	Released			0	0

Step 4: Use exchange code SE38 to erase various positions. RSBTCDEL2 RSBT (New form of RSBTCDEL). Old occupation logs will be taken out from the work outline and will at this point don't be noticeable. Enter the application and press the Execute button.



Step 5: On next screen, fill in the details for the job which want to delete, such as the Job Name. You can use the asterisk (*) to mark all jobs. Enter the username of the user you wish to delete jobs from.

Step 6: Mention state of the jobs that will be deleted, as well as the time frame for deletion.

Step 7: Define Commit: The value of a commit is related to performance of programme. Job termination will go more quickly if the commit value is high. A value of 1000 is recommended.

Step 8: Select Test run to simulate job deletion, ensuring that no jobs are lost. Uncheck Test run box and hit Execute when you're ready.

Deletion of Jobs

Differentiation Specifications of Jobs

Job Name
 User Name
 Event
 Event Parameter

Statuses, Classes, and Time Specifications

Job Class:

			A	B	C
Released	<input type="checkbox"/>	Older Than (Days)	14	14	14
Scheduled	<input type="checkbox"/>	Older Than (Days)	14	14	14
Finished	<input checked="" type="checkbox"/>	Older Than (Days)	14	14	14
Canceled	<input checked="" type="checkbox"/>	Older Than (Days)	14	14	14

Performance Optimization

Commit

Do Not Delete Temporary Variants

Execution

Test Run

Output the Statistics in the Background (Deletion Mode)

Before
 After

Step 9: When you click Test run, a list of all jobs that match the criteria will appear. If you want to make any changes before completing the deletion, you can do so now.

Job List

Index	Start Date	Start Time	Start date	End Time	Job Name	Job Coun	Created By	Status
1	03.04.2014	01:10:43	03.04.2014	01:10:43	/BDL/TASK_PROCESSOR	00104200	SAP*	Finished
2	03.04.2014	02:10:43	03.04.2014	02:10:44	/BDL/TASK_PROCESSOR	01104300	SAP*	Finished
3	03.04.2014	03:10:44	03.04.2014	03:10:44	/BDL/TASK_PROCESSOR	02104300	SAP*	Finished
4	03.04.2014	04:10:45	03.04.2014	04:10:45	/BDL/TASK_PROCESSOR	03104400	SAP*	Finished
5	03.04.2014	05:10:45	03.04.2014	05:10:46	/BDL/TASK_PROCESSOR	04104500	SAP*	Finished
6	03.04.2014	06:10:46	03.04.2014	06:10:47	/BDL/TASK_PROCESSOR	05104500	SAP*	Finished
7	03.04.2014	07:10:46	03.04.2014	07:10:46	/BDL/TASK_PROCESSOR	06104600	SAP*	Finished
8	03.04.2014	08:10:47	03.04.2014	08:10:47	/BDL/TASK_PROCESSOR	07104600	SAP*	Finished
9	03.04.2014	09:10:47	03.04.2014	09:10:48	/BDL/TASK_PROCESSOR	08104700	SAP*	Finished
10	03.04.2014	10:10:48	03.04.2014	10:10:48	/BDL/TASK_PROCESSOR	09104700	SAP*	Finished
11	03.04.2014	11:11:19	03.04.2014	11:11:20	/BDL/TASK_PROCESSOR	10104800	SAP*	Finished

CHAPTER 9:

SAP Basis - Managing Transports

9.1 TMS (Transport Management System) Overview: TMS is a fundamental component of the SAP system. TMS is used to manage new requests, manage updates (such as who made the modifications), and define and configure the SAP system landscape.

TMS is made up of three separate elements that comprise the Change and Transport System (CTS).

Transport Tools

The R3 trans and transport control programmes are managed using tools that are part of the SAP Kernel.

It stands for SAP system transport, and it's used to transfer items across SAP systems. It's generally used in cooperation with another transport control tool, such as tp or SAP update utilities.

Data and object movement across separate systems running on different platforms and databases is supported by the Transport Control Program. R3 trans stands for SAP system transport, and it's used to transfer items across SAP systems. Normally,

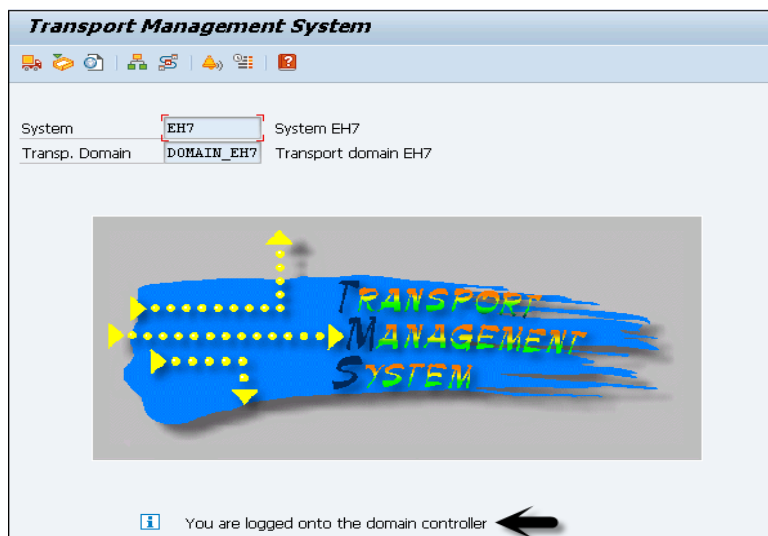
Configuring Transport Management

- Transport management is one of the most important components in the SAP system landscape, and it's utilised to do things like define the Transport Domain Controller.
- The SAP system landscape is being configured.
- Within the system Landscape, defining the Transport Routes between systems.
- Configuration distribution

9.2 Transport Domain Controller

- This is where all TMS setup data are kept. Changes to configuration settings are communicated to all systems. To set up a Domain Controller, use STMS as the T codes.

- You will be requested to build a new Domain Controller if the SAP system does not have one. The following activities are included in the transportation domain:
- TMSADM user creation
- TMSADM is used as login to the target system via RFC connection and request generation.
- The DOMAIN.CFG file, located in the usr/sap/trans/bin directory, holds TMS settings and is used by systems and domains to verify current settings.

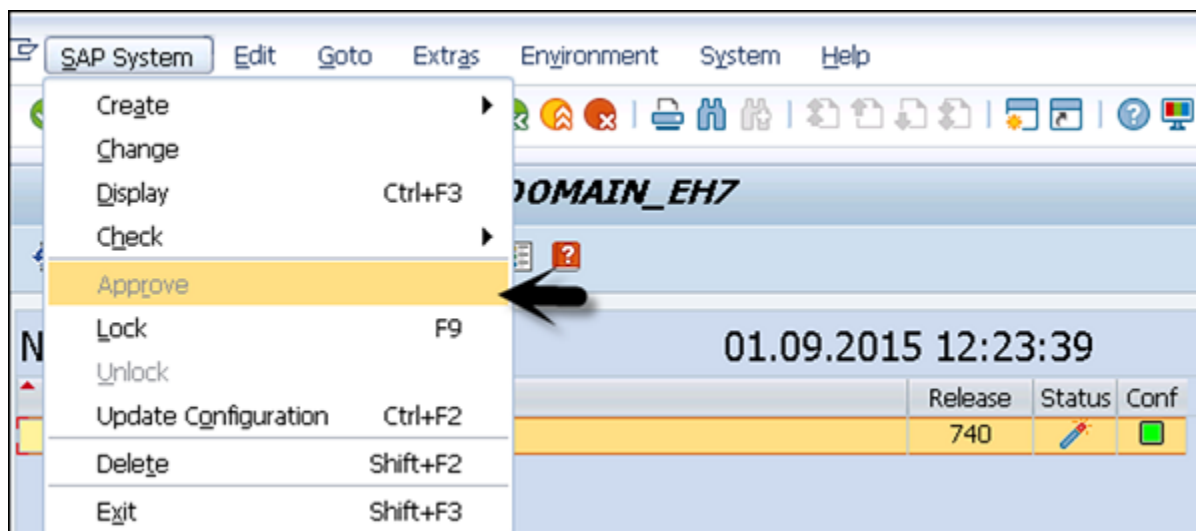
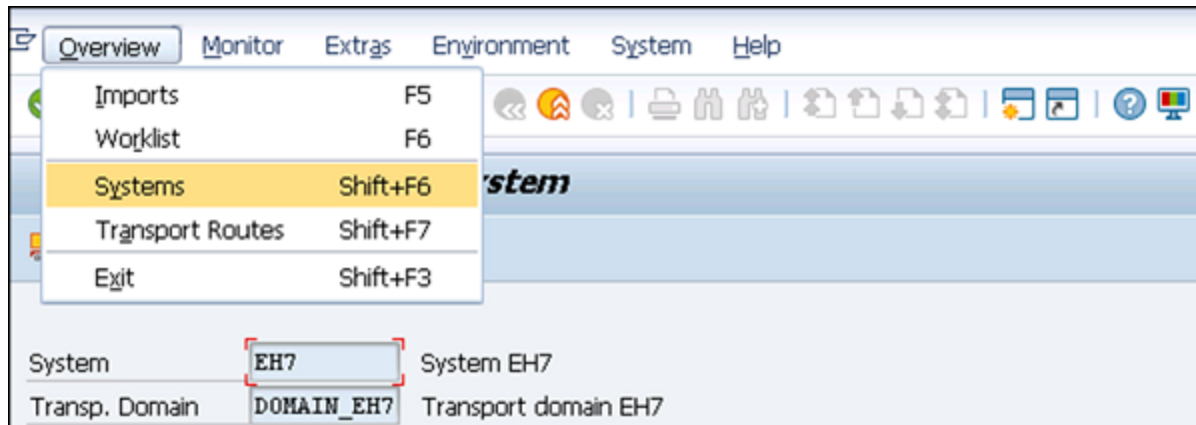


Steps to add the system to Transport domain are as follows –

Step 1: In Client 000, sign in to the SAP framework you need to add as a System and info the exchange code STMS. In the event that a framework isn't added, TMS will analyze the record with the setup DOMAIN.CFG and recommend you to make one. Save the proposition by tapping on — Select the Proposal. At first, the framework will be in a province of 'Pausing.'

For finishing the task→Firstly, login to the Domain Controller System → Transaction STMS → Click on Overview at the top→ Select Systems.

Presently you can see another framework is accessible. Thereafter, Go to SAP System → Click on Approve



CHAPTER 10:

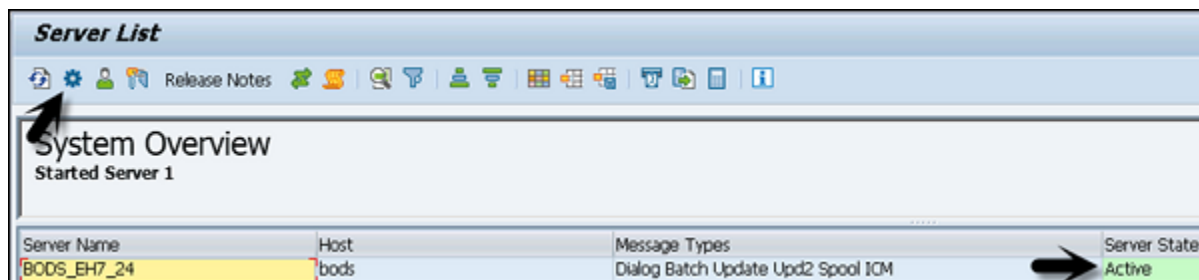
Systems, Applications & Products in Data Processing Basis - System Monitoring

Framework checking remembers centering for application workers, CPU utilization, information base space, and log records, among different perspectives.

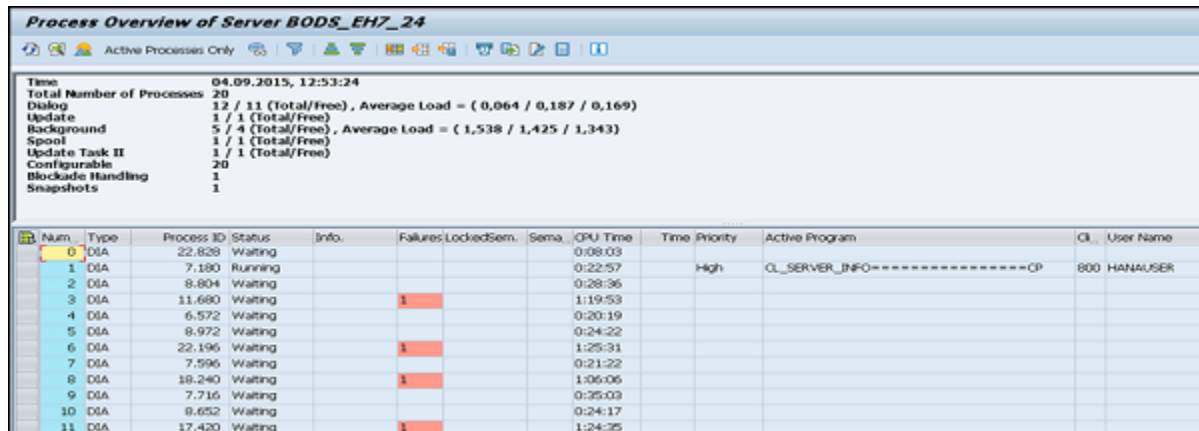
Coming up next are likewise remembered for framework checking:

- Observing of bunch errands
- Observing data set execution
- Monitoring application clients
- Observing of spool demands
- Solicitations for printed materials

Use exchange code — SM51 for checking the SAP framework.



list of processes, Select the Process icon.



For monitoring application users, use the T codes — AL08 and SM04

List of All Users Logged On

Refresh

System EH7 Overview of all
Date, Time 04.09.2015 12:59:22 users logged on.

Active Instances	Number of Active Users	Interactive Users	Number of RFC Users	Number of Plug-In Users
BODS_EH7_24	7	1	6	0

1 Destinations with 7 users.

BODS_EH7_24	Client	User Name	Terminal	Transaction Code	Time	Ext. Sess.	Int. Sess.
	800	HANAUSER	BODS		12:59:22	1	1
	800	LTRUSER			12:59:21	1	1
	800	SAPUSER			12:59:21	1	3
	800	HANAUSER	BODS		12:59:22	1	2
	800	SAPUSER			12:59:21	1	3
	000	SAP_USRT	bods.logon2erp.com		12:59:20	1	1
	000	SAP_USRT	bods.logon2erp.com		12:59:18	1	1
	800	BGRFC_SUPER	bods.logon2erp.com		12:56:48	1	1
	800	BGRFC_SUPER	bods.logon2erp.com		12:56:48	1	1

Use T code — SM04

List of All Users Logged On

Refresh

System EH7 Overview of all
Date, Time 04.09.2015 12:59:22 users logged on.

Active Instances	Number of Active Users	Interactive Users	Number of RFC Users	Number of Plug-In Users
BODS_EH7_24	7	1	6	0

1 Destinations with 7 users.

BODS_EH7_24	Client	User Name	Terminal	Transaction Code	Time	Ext. Sess.	Int. Sess.
	800	HANAUSER	BODS		12:59:22	1	1
	800	LTRUSER			12:59:21	1	1
	800	SAPUSER			12:59:21	1	3
	800	HANAUSER	BODS		12:59:22	1	2
	800	SAPUSER			12:59:21	1	3
	000	SAP_USRT	bods.logon2erp.com		12:59:20	1	1
	000	SAP_USRT	bods.logon2erp.com		12:59:18	1	1
	800	BGRFC_SUPER	bods.logon2erp.com		12:56:48	1	1
	800	BGRFC_SUPER	bods.logon2erp.com		12:56:48	1	1

For examining the update processes, use T codes — SM13. Type ‘*’ in the User field and click on Execute.

Update Requests: Initial Screen

Client User

Status

Canceled
 To be updated
 V1 executed
 V2 Executed
 All Global View

Selection

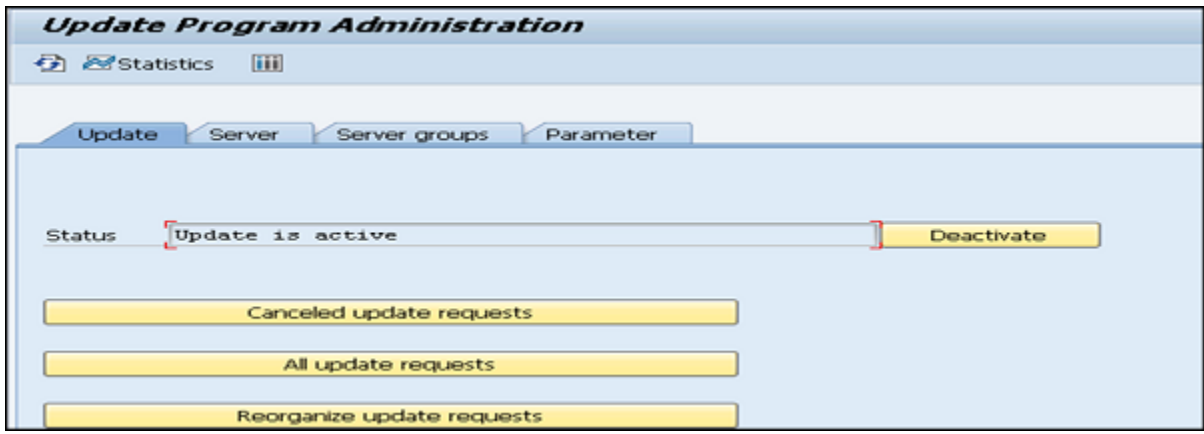
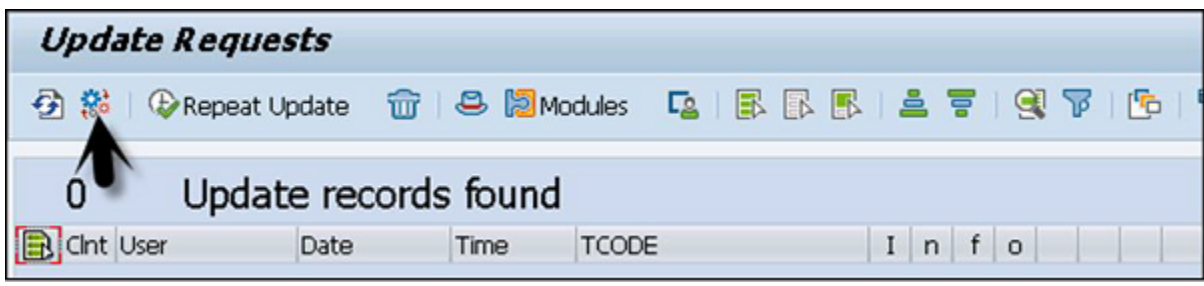
From date 04.09.2015 To date
 From time 00:00:00 To time 00:00:00

Maximum no. records 99.999
 Update server

Update System Administration

Update is active

Queue will be empty if there is no pending request as shown in the following screenshot –



10.1 Important T codess for system monitoring and performance evaluations are provided in the table below.

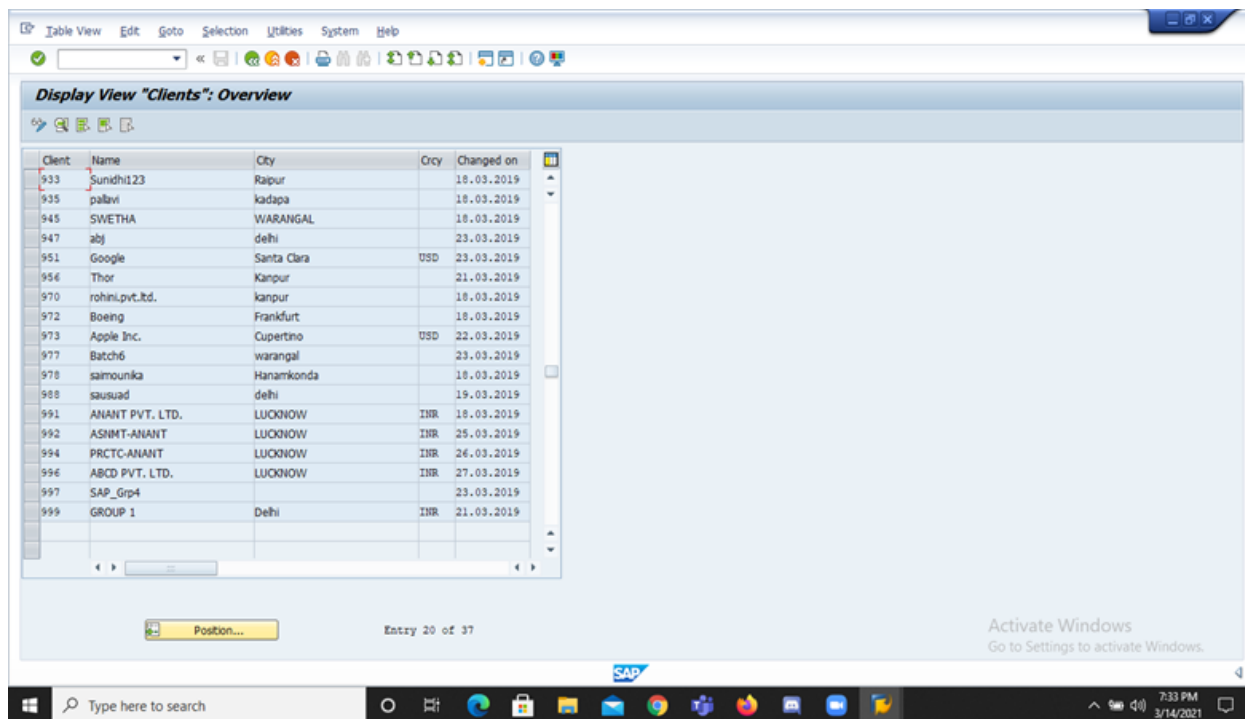
Monitoring System Log	SM21
Tune Summary	ST02
CPU Utilization	ST06
ABAP Dumps	ST22

Spool Request Monitoring	SP01
Monitoring Batch Job	SM37
Database Administration	DB02
Database backup logs	DB12

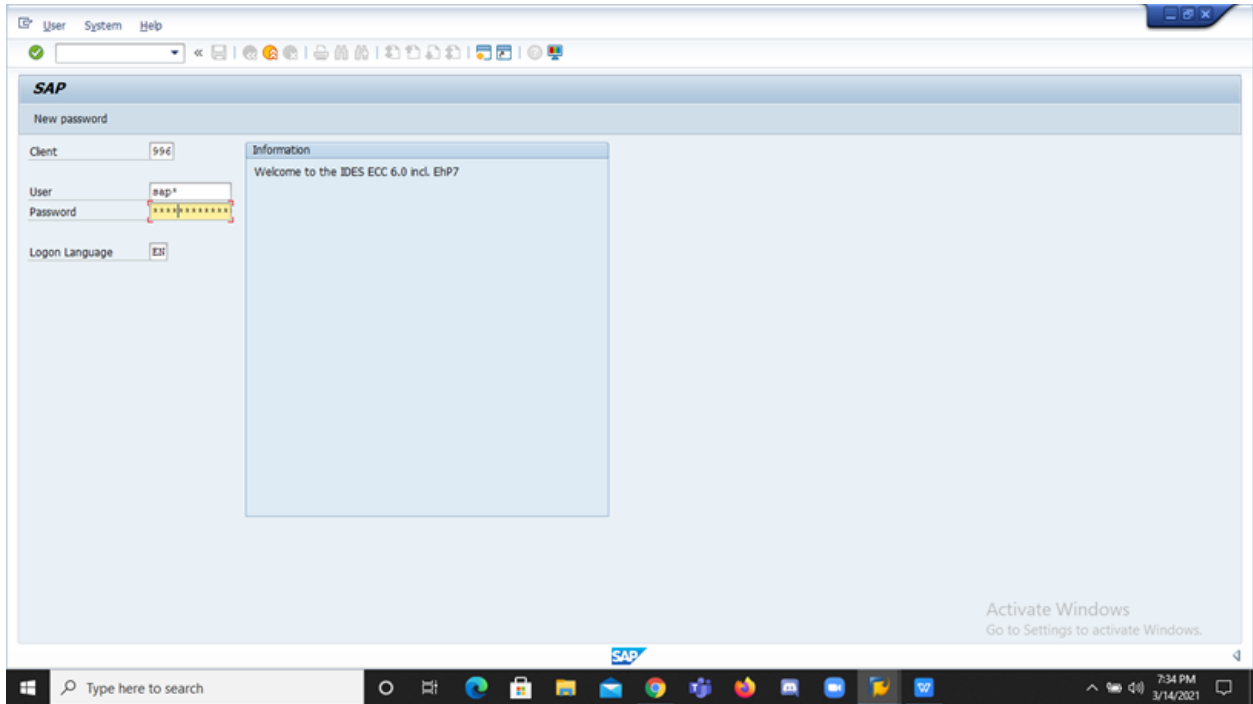
CHAPTER 11:**REMOTE FUNCTION CELL (RFC)**

RFC is a protocol that lets business applications interact and share data with other systems (in predefined forms). The word RFC stands for 'Remote Function Call.'

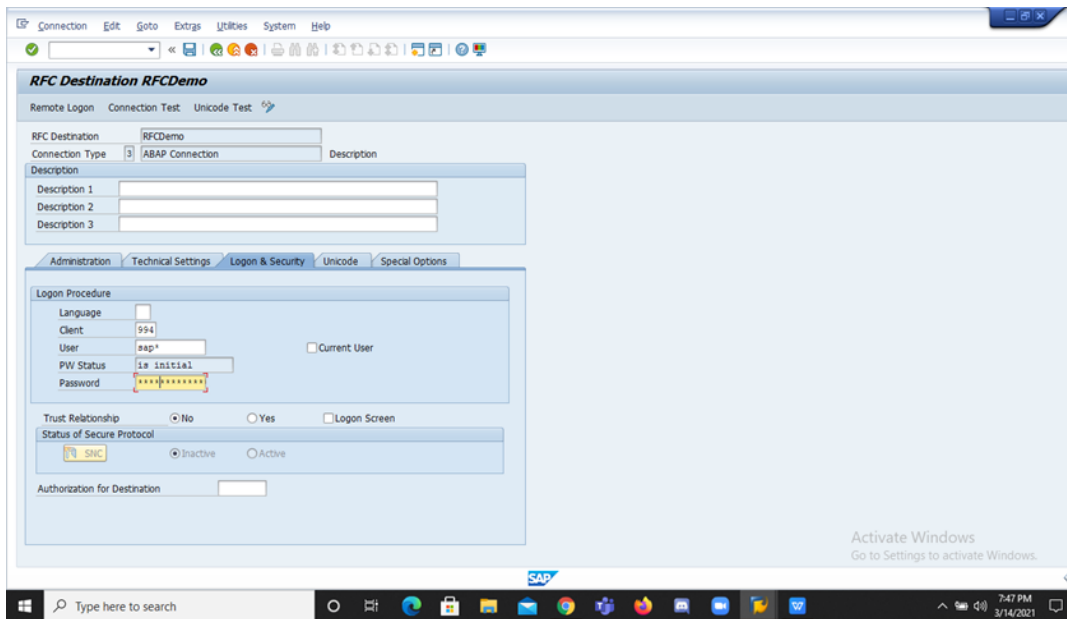
RFC is a SAP protocol that handles communications between systems and makes development easier. It is the process of calling a function module from a computer other than the one where the caller software is running. RFCs can also be used to call another programme on the same system, though they are most commonly used when the 'calling' and 'called' function modules/programs are on different computers.

11.1 How to Create RFC?**1. Firstly, create a client**

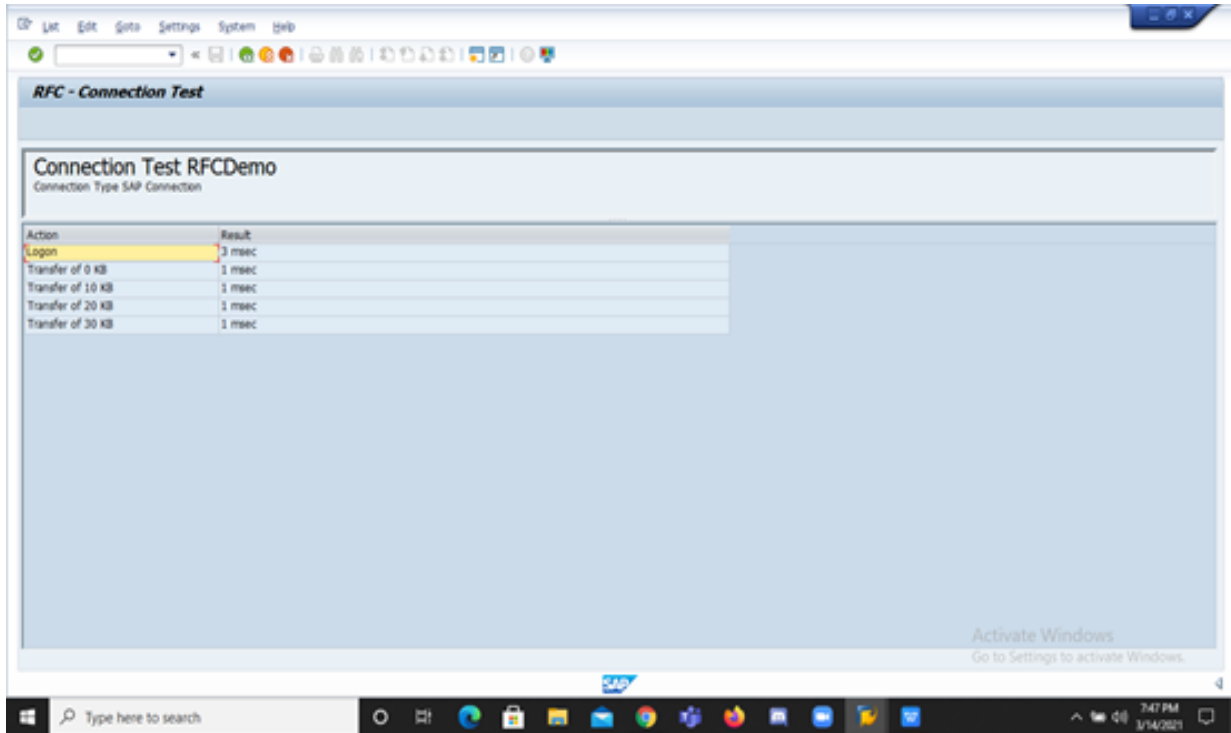
2. Now, login the system which is supposed to be on the receiving end of the RFC.



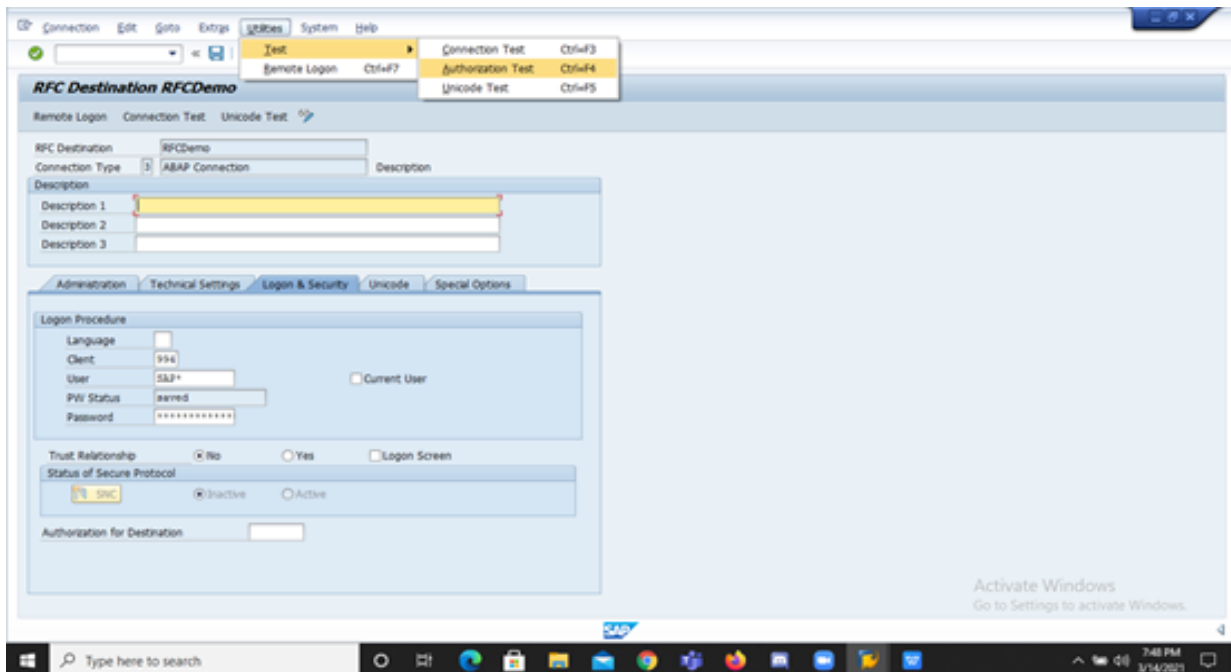
3. Then, Click proceed to create an RFC connection.



4. Then try to perform the connection test.



5. After that, click the proceed to perform the Authorization Test.



6. When, the authorization test is passed without any errors, click confirmation that the RFC connection is successful.

Menu: List Edit Goto Settings System Help

Toolbar: [Icons]

RFC - Connection Test

Connection Test RFCDemo

Connection Type SAP Connection

Action	Result
Logon	4 msec
Transfer of 0 KB	1 msec
Transfer of 10 KB	1 msec
Transfer of 20 KB	1 msec
Transfer of 30 KB	2 msec

Activate Windows
Go to Settings to activate Windows.

SAP

Windows Taskbar: Type here to search | [Icons] | 7:48 PM 3/14/2021

Conclusion:

About Company: DXC Technology manages mission-critical technologies with the latest technology to improve business outcomes and provide clients with new levels of performance, competitiveness, and experiences.. The prime focus is on IT modernization including on-premises and cloud, data-driven operations and workplace modernization.

Project/Training Brief: As a part of DXC Early Career Professionals program (DECP). The whole learning journey was divided into 2 phases – Foundation and Technical (Domain & Specialization). Foundation training was 2 weeks a self-paced learning module and there were assessments during the learning and it was mandatory to score an average score of 60 in the Foundation module. Post the completion of the Foundation training Domain was assigned & Specialization Training which was a full day instructor led training was completed.

Tools deployed:

Systems, Applications & Products in Data Processing NetWeaver

Key parts of the report & your findings and solutions provided in the report:

After completing the learning phase with all my dedication I am prepared to process basic tasks within the technology environment of SAP systems.

Configure and manage SAP NetWeaver AS ABAP

Configure and manage SAP NetWeaver AS Java

Benefits to the company through your report:

After completing the virtual training I am ready to implement my learning for required needs of the organization. I will try my best to implement my theoretical learning practically by working on different projects. I am able to Configure and manage SAP NetWeaver.

MY EXPERIENCE:

My overall experience of doing training at DXC Technology is awesome, beneficial and engaging. These training programs definitely enhanced my skills, improved efficiency, and productivity and grew opportunities for me. Mentors were so Cooperative and Helpful all the time and I have learned a lot of new skills and gained a lot of knowledge which will be very helpful in future. I can't wait to put what I've learned to use. At the end of the training program, I want to thank all my team members, teachers, mentors, friends and family for always encouraging, supporting, guiding and believing in me.

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