SAP ABAP Interview Questions

Q1) Differentiate between Structure and table in the data dictionary of ABAP.

The following are the differences between table and structure -

TABLE	STRUCTURE
Table can store data physically.	Structure can't store data physically.
Table can include primary key.	Structure can't include primary key.
Table can include technical attribute.	Structure can't have a technical attribute.

Q2) Explain the 3-tier architecture of SAP ABAP.

The presentation layer of SAP ABAP includes an input device. The SAP system is controlled by this presentation layer. The presentation can be a mobile phone or just a web browser. The process takes place with the help of Application server. This processing system has various instances in the Application server. A database layer is placed on another server and application server communicates with this layer. This done for security and performance purposes. In this way, all the layers communicate within the system right from the presentation till the database later.

Q3) What is the meaning data dictionary in ABAP?

Data dictionary is mainly used for describing the logic behind the structures of certain objects which are used for the development of ABAP 4. Data dictionary is mainly used in the development of such an application or programming language. The relational database is shown with the help of data dictionary in tables.

Q4) Define Function Group. What are the differences between Function Module and Function Group?

Function Group and Function Module are said to belong together logically. Function groups are considered to be containers of the Function Modules.

The differences between Function Groups and Function Modules are as follows -

- Function Groups need not be defined in Function Module but however, the latter one must be defined in Function Groups.
- Function Modules are able to be called from various kinds of programs. Function Groups can't be called.
- Function Groups acts as Function Module's containers but the latter one doesn't act as containers.

Q5) What are the functions of Lock Objects?

The same data can be accessed by various programs and Lock Objects which is a particular feature of ABAP synchronizes the access to these data. Particular programs help in accessing the data

records. Sometimes, inconsistencies appear when data gets inserted into the database and in order to avoid this, Lock Object is used.

Q6) What are the functions of message command available in a report? Mention its types.

The message ID gets specified right at the start of the program and this is available in the reported statement. Message command helps in displaying the message ID. Message ID includes a 2-character code which helps in defining a total set of 1000 total messages and message command defines what sets are to be used in the program.

The following are the different kinds of messages which appear in the program system -

- **E - Error:** When this message appears, the current application stops working. The program running in the background mode also gets canceled. The job log records this message.
- **W - Warming:** In order for the application to continue when this message appears, Enter must be pressed by the user. Job log also records this message.
- **I - Information:** When this message appears, Enter must be pressed and this message which appears in the pop-up window also gets recorded by job log.
- **A -Abend:** The current transaction used by the user gets canceled when this messy appears.
- **S - Success:** This message appears mainly in the form of feedback which is given to the users. This appears at the bottom of the screen. This is considered to be a positive message. The program is not disturbed by this message.
- **X - Abort:** Mainly the entire program Gerd aborted by this and generally an ABAP short dump gets created.

Q7) Why are insert and append statement used in SAP ABAP?

At the end of the internal table, a record gets added to the specific work area and Append statement helps in adding this record.

A record at specific location gets added with the help of Insert Statement.

Q8) Define the various contents of Technical Specifications.

Technical Specifications consists of 5 contents -

1. Data Class
2. Buffering Permission
3. Size Category
4. Login
5. Buffering Type

Q9) Define Smart Forms.

Different kinds of forms are created by Graphical design tool with the help of Smart Forms.

Q10) Why is pretty printer user in ABAP?

Pretty printer is used to format the code of ABAP.

Q11) Differentiate between transparent and pool tables.

Transparent tables are the ones which has one to one relation to the table. The structure is also similar to the single database field. On the other hand, pool tables are the ones which have many to one relation to the table. Database level stores the pooled tables.

Q12) Define BDC programming.

Batch Data Communications that is BDC is a type of procedure. This automatic procedure is mainly used for transferring large data into SAP system. The main component of the transfer is known as the Queue file. This file gets hold of the data with the help of batch input programs. These programs and groups are associated with various sessions.

Q13) What are the different types of data classes? Define them.

The data classes are divided into the following -

1. Master data - The data of this class rarely changes.

2. Transaction data - This type of data often changes.

3. Organization data - The data of this class also rarely changes. The data gets customized and gets entered into the configured system.

4. System data - R/3 system uses this data.

Q14) What is the meaning of foreign key relationship?

The data consistency is ensured by using foreign key. The relationship must be defined explicitly. In order to ensure that no contradiction is there, the data which is entered must be checked. In foreign key relationship, cardinality must be totally specified.

Q15) What is the meaning of SAP R/3?

SAP R/3 mainly refers to the processing structure having three types of layers namely, Presentation layer, application layer, and database layer. It is generally considered to be Systems Application for processing of data.

Q16) Differentiate between OOABAP and ABAP.

For the development of traditional programs in R/3, ABAP is used. On the other hand, OOABAP is used for the development of BSP/PCUI applications.
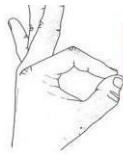
Q17) What is the meaning of table buffer? This buffer is used by which type of table?

The word buffer here refers to the memory area. The information about the table is found on the application server and this is the meaning of table buffer. In fact, even the data of the database table actually comes from the application server. Cluster table can't be buffeted but however, transparent and pool tables can be buffered.

Q18) How can cluster table be created?

The following steps must be followed to create cluster table -

- From the dictionary of ABAP, object type table must be selected. Table name should be entered and then the create option must be chosen.

- A maintenance screen gets displayed for the table. Transparent table must be set as default for table type option.

- On the page of attributes, changes must be done in the description box or parallel. Next, table fields get defined.

- Save the entries for the creation of transparent table.

- The category of EXTRAS Change must be chosen.

- Pooled or cluster table - any one of the two table types must be selected from the dialogue box.

- Next step includes returning to the field maintenance screen for the table.

- Lastly, the name of the cluster or pooled table must be selected entered.

Q19) Differentiate between Table and Template.

The main difference between Template and Table is that the former one is dynamic in nature whereas the latter one is static in nature.

Q20) Define dispatcher.

The resources of the applications of R/3 are managed with the help of SAP dispatcher which is basically a control agent.

Q21) How can the standard tables of SAP be modified?

The standard table of SAP can be modified mainly by two methods -

    1. Customizing includes

    2. Append structures

Q22) What are the various events associated with Screen Programming?

The following are the events associated with Screen Programming -

1. Process Before Output (PBO) - This event gets processed long before displaying the screen.

2. Process After Input (PAI) - This event is processed while the interaction of a user with the screen continues.

3. Process On Help (POH) - This even gets process on request by a user after pressing F1. The program gets appropriately coded in various event blocks. The present screen gets processed by the system.

4. Process On Value (POV) - This gets processed by pressing F4 by users. Here also, the coding can be done in the various event blocks.

Q23) What are the main events of which are used for Logical Database?

The main events used for Logical Database are as follows -

1. GET - The programs used for Logical Database ads executed with the help of this event. It mainly takes place when a line from the node was read by the logical database. This has made it very much available towards the program and GET statements determine the depth of the logical database.

2. PUT - The flow of the program is directed by the PUT event.

Q24) How can End-of-selection be used?

While writing the code of HR-ABAP, End of the selection event can be used. Right at the beginning of the skeleton event, the data gets retrieved. Printing of the same data is done at the end of the selection event.

Q25) Define ALV programming in ABAP.

ALV is the abbreviation of Application List Viewer. ALV functions are provided by SAP in order for enhancing the report output. These function modules help in improving the readability and the functionality of the output report. Even the columns can be arranged with the help of this tool.

Q26) Differentiate between report and dialog program.

Dialog program is considered to be a module pool program while a report is considered to be an executable program. The execution is mainly done through a transaction. Screens can be customized with the help of Dialog programming.

Q27) Mention the various types of objects of the data dictionary.

The following are the data dictionary objects -

1. Tables
2. Domain
3. Views
4. Data Element
5. Search Helps or Matchcode Objects
6. Type Groups
7. Look Objects
8. Table Types
9. Structure

Q28) What are the various types of parameters and how are they distinguished from one another?

There are mainly two types of parameters -

1. Formal parameters - This is basically defined when the subroutine gets defined alongside FORM statement.

2. Actual parameters - This is defined when the subroutine gets defined alongside the PERFORM statement.

These can be distinguished by distinguishing the functionality. The data are passed to the subroutines with the help of the Input parameters and data are passed from the subordinates with the help of output parameters.

Q29) Mention the various databases integrities.

The following are the different types of database integrities -

1. Semantic Integrity
2. Primary Key Integrity
3. Relational Integrity

4. Value Set Integrity

5. Operational Integrity

6. Foreign Key Integrity

Q30) Differentiate between ABAP memory and SAP memory.

ABAP memory is considered to be the memory area included in the ABAP program available in the internal section or the roll area of the ABAP program. Data is stored in the program calls which allow the data to be passed from one program calls to another.

It is possible for data to be passed from one session to another with the help of using SAP Memory. All the sessions of SAPgui have accused to the memory area known as SAP Memory. Data can be very easily transferred from one session of the programming system to another.

Q31) What statement will be found in an SAP application program that implements a function module exit?

Function module exits will exist in some SAP application programs to allow a customer to add some functionality to the SAP program. Search the SAP application program globally looking for the following search string: "CALL CUSTOMER" to determine if an exit exists.

Q32) What is a BADI?

BADI stands for Business add-in. BADI's are a relatively new enhancement concept that make use of ABAP Object technology. This is a true object oriented approach to SAP enhancements using classes, interfaces and methods to implement the BADI

In order to enhance a SAP application program, the BADI must first be defined. The developer will create an interface for the BADI. An adapter class is created from this that will implement the interface. Developers will then create an instance of the adapter class in the SAP application program and create method calls as required.
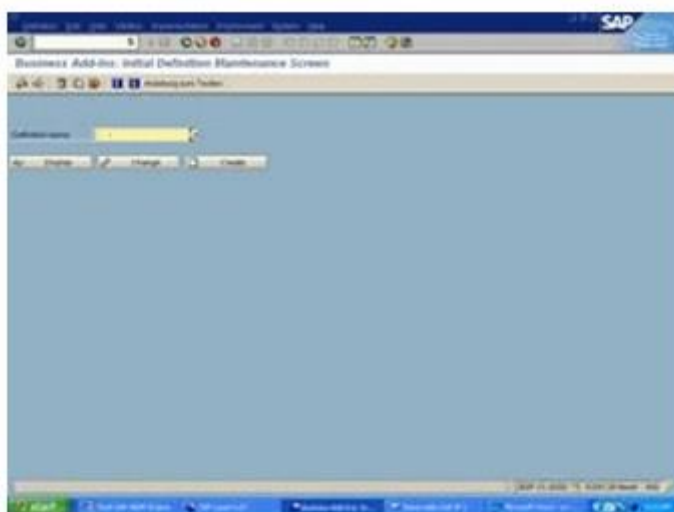
Fig. 2: SE18 – BADI Maintenance

Q33) Explain the relationship between a functional area, user group and query when developing queries using the SAP Query tool?

- Functional areas and user groups are organizational elements used in SAP Query that must first be created in order to user the query environment.

- The data that a query will be based on is defined in a functional area. A functional area is typically - based on a logical database but can be any table and fields within that table.

- Users are assigned to user groups. Functional areas are also assigned for the user group allowing users to create and start queries based on the data in that functional area. Multiple functional areas can be assigned to a user group and a functional area can be assigned to several different groups.

Q34) What ABAP statement will trigger list generation?

The first WRITE statement encountered in an ABAP program will trigger list processing. Upon completion of the program, the list is output. The system will generate some standard headings for list output that includes the program name and a page number in the heading.

Q35) What two statements are required in an ABAP program to output an icon using a write statement?

There are 2 statements required in the ABAP program:

1. The INCLUDE or INCLUDE   statement is required in the program.
2. The WRITE statement will have the following syntax: WRITE AS ICON.

The Include files contain the names of constants that represent all system defined icons.   contains only icons that are relevant for list processing while will contain all system defined icons.