

## Unit-6

**SESSION 7: RESPOND TO A MEETING REQUEST**

Calendar software allows the user to respond to other users meeting requests.

Open the email application to view the request. to respond, select Accept, Tentative, Decline or

Propose New Time options

As a meeting attendee, you can propose an alternative meeting time. However, the meeting organizer must accept the new time. Meeting organizers can send meeting requests that restrict the ability to propose alternate meeting times. If the meeting organizer has restricted meeting proposals, the **Propose New Time** command is not available. By default, when you propose a new time, you tentatively accept the meeting. However, if you click the text **Propose New Time**, you have the additional options to click **Tentative and Propose New Time** or **Decline and Propose New Time**.

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Respond to the meeting requests sent by one of your classmates using mentioned procedure you have learnt today.
2.	Respond to requests from other classmates using options such as Accept, tentative, etc. and observe the results sent to your mail.

## ASSESSmeNT

**Fill in the blanks:**

- Calendar software allows the user to respond to other users meeting requests.
- Responses to your meeting request appear in your Inbox.
- Some of the response options for meeting request are Accept, Tentative & Decline or Propose New Time.
- You have received a meeting request for which the schedule is not convenient to you; however you would like to reschedule this meeting. Which option should be used when responding to this meeting request Decline or Propose New Time

**SESSION 8: CREATE AND EDIT A TASK**

**t**asks refers to actions that can be performed by an user; tasks may include action items such as booking a conference room, booking tickets, reminder for a task completion itself, etc. in this exercise, you will learn to create and edit a task.

You can create tasks in email calendar application software.

Go to File > New > Task, a Task window will be displayed.

Here you can define a subject name for the task; the start date and end date of the task; the status of the task and the priority of the task. Once you have given the entire details click Save & Close at the top of the page. A window is displayed

You can also the edit the task by double clicking the task name available in the email application software.

**Fill in the blanks:**

1. Tasks refers to actions that can be performed by a user.
2. While creating a task you can define Subject name, Start date, end date, status & priority of a task.

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a new task
2.	Edit an existing task

### SESSION 9: CREATE AND EDIT A NOTE

Notes are short text messages that can be used for taking quick notes. You can create notes in the calendar software. In this exercise, you will learn to create and edit a note.

Go to **File > New > Note**, a window will be displayed.

You can type the content of the note and click the  icon. Once you click the  icon, a dropdown list appears. To view the notes that you have created, click **Notes** in the calendar application. If you would like to edit the note, double-click on it and edit as required.

**Fill in the blanks:**

1. Notes are short text messages that can be used for taking quick notes.
2. To view the list of notes you select the Notes option in the Calendar application.

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a note
2.	Edit a note
3.	Create note for the following items: 1. Grocery list. 2. Books to buy list.

### SESSION 10: CREATE AND EDIT A JOURNAL ENTRY

Journal entry creates a timeline of transactions that can be linked to a contact. A transaction might be an email, task, appointment etc. The following activities can be automatically recorded:

- Emails Sent & Received
- Telephone calls
- Meeting requests & responses
- Office documents you manage

By automatically recording all documents you work on, email sent to specific contacts, and phone calls made, the journal logs all your activity. This is very useful when you need to know how long you worked on a document or spent on a phone call because the journal tracks the elapsed time along with the event.

**Fill in the blanks:**

1. Journal entry creates a timeline of transactions that can be linked to a contact.

2. Emails Sent & Received, Telephone calls, Meeting requests & responses, Office documents you manage are some of the items that can be automatically recorded by the Calendar Software.

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a new journal entry
2.	Edit an existing journal entry

## Unit 7: Database Development (Basic)

### SESSION 1: DATABASE CONCEPTS

A database is an organized collection of data. You can visualize it as a container of information. The data is typically organized to model relevant aspects of reality (for example, the availability of rooms in hotels), in a way that supports processes requiring this information (for example, finding a hotel with vacancies).

#### Database management System

A database management system is a software package with computer programs that controls the creation, maintenance, and use of a database. It allows organizations to conveniently develop databases for various applications. A database is an integrated collection of data records, files, and other objects. A DBMS allows different user application programs to concurrently access the same database.

Well known DBMSs include Oracle, IBM DB2, Microsoft SQL Server, Microsoft Access, PostgreSQL, MySQL, FoxPro, and SQLite.

**Data can be organized into two types:**

- **Flat File:** Data is stored in a single table. Usually suitable for less amount of data.
- **relational:** Data is stored in multiple tables and the tables are linked using a common field. Relational is suitable for medium to large amount of data.

#### Database Servers

Database servers are dedicated computers that hold the actual databases and run only the DBMS and related software. Typically databases available on the database servers are accessed through command line or graphic user interface tools referred to as Frontends; database servers are referred to as Back-ends. Such type of data access is referred to as a client-server model.

#### RDBMS

A relational database management system (RDBMS) is a database management system that is based on the relational model as introduced by E. F. Codd, of IBM's San Jose Research Laboratory. Most popular databases currently in use are based on the relational database model.

The relational model for database management is a database model based on first-order predicate logic, first formulated and proposed in 1969 by Edgar F. Codd.

The purpose of the relational model is to provide a declarative method for specifying data and queries: users directly state what information the database contains and what information they want from it, and let the database management system software take care of describing data structures for storing the data and retrieval procedures for answering queries.

### Database Concepts

Database contains objects that are used for storing and managing information.

### Short Answer Questions

1. What does DBMS stands for?

DBMS stands for Data Base Management Systems.

2. What does RDBMS stands for?

RDBMS stands for Relational Data Base Management Systems.

3. How is data organized in a RDBMS?

A relational database management system (RDBMS) is a database management system that is based on the relational model as introduced by E. F. Codd, of IBM's San Jose Research Laboratory.

The relational model for database management is a database model based on first-order predicate logic. The database management system software take care of describing data structures for storing the data and retrieval procedures for answering queries.

### Fill in the blanks:

1. A Database is an organized collection of data.
2. A database management system is a software package that can be used for creating and managing databases.
3. A relational database management system is a database management system that is based on the relational model.
4. Three popular DBMS software are Oracle, MySQL, & Microsoft Access.

### Perform the following activities till you are confident:

S.No.	Activities
1.	Analyze database requirements for a retail shop. Record the business requirements and document. (You can use this information for creating a database to suit this business requirement)
2.	Analyze database requirement for your school; visit different departments such as library, student admission centre, to gather requirements. Document the business requirement. (You can use this information for creating a database to suit this requirement)

## SESSION 2: DATA STORAGE

Data in a relational database management system (RDBMS) is organized in the form of tables. A table is a set of data elements (values) that is organized using a model of vertical columns (which are

identified by their name) and horizontal rows. A table has a defined number of columns, but can have any number of rows. Each row is identified by the values appearing in a particular column identified as a unique key index or the key field.

**Data types:**

Datatypes are used to identify which type of data (value) we are going to store in the database. Fields themselves can be of different types depending on the data they contain. Data types in OpenOffice base is broadly classified into five categories listed below.

- Numeric Types
- Alphanumeric Types
- Binary Types
- Date time
- Other Variable types

**Numeric Types:**

Numeric data types are used for describing numeric values for the field used in the table of a database. numeric data types in a database can be using for storing information such as mobile number, roll number, door number, year of school admission, true or false statements, statistical values, etc.

Name	Data type	Description
BOOLEAN	Yes / no	Values as 0 or 1. Example: true or False, Yes or no.
TINYINT	tiny integer	Store integer range between 0 to 255
SMALLINT	Small integer	Store integer range between $-2^{15}$ to $+2^{15}-1$
INTEGER	integer	Store integer range between $-2^{31}$ to $+2^{31}-1$
BIGINT	Big integer	Range between $-2^{63}$ to $+2^{63}-1$
NUMERIC	number	Maximum precision of $e^{(+/-)231}$
DECIMAL	Decimal	Maximum precision of $e^{(+/-)231}$
REAL	Real	$2^{-1074}$ to $(2-2^{-52}) * 2^{1023}$
FLOAT	Float	$2^{-1074}$ to $(2-2^{-52}) * 2^{1023}$
DOUBLE	Double	$2^{-1074}$ to $(2-2^{-52}) * 2^{1023}$

**Alphanumeric Types:**

Name	Data type	Description
LONGVARCHAR	Memo	Stores up to the max length or number indicated by user. it accepts any UTF 8 Character.
CHAR	Text (fix)	Stores exactly the length specified by user. Pads with trailing spaces for shorter strings. Accepts any UTF 8 Character.
VARCHAR	text	Stores up to the specified length. No padding (Same as long var char)
VARCHAR_IGNORE CASE	text	Stores up the specified length. Comparisons are not case sensitive but stores capitals as you type them.

**Binary Types:**

Binary data types are used for storing data in binary formats. Binary data types in a database can be used for storing photos, music files, etc. In general, files of any format can be stored using the binary data type. The different types of binary data types available are listed here.

Name	Data type	Description
LONGVARBINARY	image	Stores any array of bytes (images, sounds, etc.). no validation required.
BINARY	Binary (fix)	Stores any array of bytes. no validation required.
VARBINARY	Binary	Stores any array of bytes. no validation required.

**Date time:**

Date time data types are used for describing date and time values for the field used in the table of a database. Date time data types in a database can be used for storing information such as date of birth, date of admission, date of product sale, etc. The different types of date time data types available are listed here.

Name	Description	Format
Date	Stores month, day and year information	1/1/99 to 1/1/9999
time	Stores hour, minute and second information	Seconds since 1/1/1970
timestamp	Stores date and time information	

The unique field is called the primary key (PK). A primary key is a unique value that identifies a row in a table. In our example, ClientID is the primary key in the Client table. Primary Keys are also indexed in the database, making it faster for the database to search for a record.

The referred field ClientID which occurs in the Sales table is called the **foreign key (FK)**. Hence, the foreign key identifies a column or set of columns in one (referencing) table that refers to a column or set of columns in another (referenced) table.

**Short Answer Questions**

- List the data types used in a DBMS /RDBMS?

Data types listed below.

- Numeric Types
- Alphanumeric Types
- Binary Types
- Date time
- Other Variable types

- State the relationship and difference between a primary and foreign key?

Key differences between the Primary key and foreign key are , a primarykey is a set of attributes/a candidate key that distinctly identifies a record in a relation. However, a foreign key in a table refers to

the primary key of another table.

The relation between the primary key and foreign key is a foreign key is a reference to the primary key. ( It can point to the primary key of a different table, or to that of the same table that contains the foreign key.)

3. List datatypes available in numeric Datatype?

- BOOLEAN
- TINYINT
- SMALLINT
- INTEGER
- BIGINT
- NUMERIC
- DECIMAL
- REAL
- FLOAT
- DOUBLE

4. List datatypes available in Date Datatype?

- Date
- time
- timestamp

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a database for a stationery shop. Hint : Create fields for items, price, color, vendor, etc.

1. A table is a set of data elements that is organized using a model of vertical columns and horizontal rows.
2. A column is a set of data values of a particular simple type, one for each row of the table.
3. A Primary key is a unique value that identifies a row in a table.

**SESSION 3: MANIPULATING DATA**

In a database you can define the structure of the data and manipulate the data using some commands. There are two types of languages for this task. These are:

- Data Definition Language (DDL)
- Data Manipulation Language (DML)

**Data Definition Language (DDL)**

A data definition language or data description language (DDL) is a standard for commands that define the different structures in a database. DDL statements create, modify, and remove database objects such as tables, indexes, and users. Common DDL statements are CREATE, ALTER, and DROP.

**Data manipulation Language (DmL)**

A data manipulation language (DML) is a language that enables users to access and manipulate data in a database. The goal is to provide efficient human interaction with the system. Data manipulation involves:

- Retrieval of information from the database- SELECT statement
- Insertion of new information into the database - INSERT statement
- Deletion of information in the database - DELETE statement
- Modification of information in the database - UPDATE statement

**Fill in the blanks:**

1. types of languages used for creating and manipulating the data in the Database are Data Definition Language (DDL) & Data manipulation Language (DmL).
2. A Data manipulation Language (DmL) is a language that enables users to access and manipulate data in a database.
3. A popular data manipulation language is Structured Query Language (SQL).
4. Common DDL statements are SELECT, INSERT and UPDATE.

**SESSION 4: CREATING A DATABASE OBJECT**

There are a variety of DBMS/RDBMS available; in this exercise, you will learn about OpenOffice Base an Open Source RDBMS.

To launch OpenOffice, click **Start>Programs>OpenOffice.org 3.4.1>OpenOffice.org**. Alternatively, you can also double-click on the OpenOffice.org 3.4.1 shortcut on the desktop if available. You should see a Window

**Short Answer Questions:**

1. What is the file extension for databases created using OpenOffice.Org Base?  
"ODB" is the file extension for databases created using OpenOffice.Org Base
2. List any three file formats that can be managed using OpenOffice.Org Base?

The file formats that can be managed using OpenOffice.Org Base are,

1. Word documents
2. Spread sheets
3. Power point Presentation files
4. HTML Document

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a database

**SESSION 5: CREATING A TABLE**

**Tables** are the basic building blocks of a database. You store the data in the database in the form of tables. In the previous exercise you have learnt how to create database objects in OpenOffice.

In this exercise you will learn how to create a table in a database. After

creating the database, you see a window as shown below.

Click on **Create Table in Design View...** option available under **Tasks** and a **Table Design**

window appears as shown below.

Specify the field name and data type of the field to be created by selecting the appropriate type available under Field type dropdown list.

Now create a table with the fields.

Specify the table name. The default name is **table1**. Click **OK**

#### Fill in the blanks:

1. Tables are the basic building blocks of a database.
2. **to** design a table, you need to select Create table in Design view \_\_\_\_\_ option available under **task**.

### SESSION 6: BUILDING FORMS

A form provides the user a systematic way of storing information into the database. It is an interface in a user specified layout that lets users to view, enter, and change data directly in database objects such as tables.

To create a form, Click on **Forms** option located under Database section. Click **Use Wizard to Create Form...** option under **Tasks** group. The Form Wizard dialog box appears. You can select selective fields to be sent onto the form by selecting the field name and clicking > button. You can select individual fields in a database or all fields in a database.

To use all the fields in the table in a form, click the >> button.

Notice the fields displayed under **Fields in the forms**. Click **Next>**. You see the **Set up a sub form** step dialog box of the wizard. You can select the option **Add Subform** if you need to insert the contents in the table in a separate form. Click **Next>**.

A form window appears. notice that the records in the table are displayed automatically within the form that you just created.

#### Fill in the blanks:

1. A Form helps the user to systematically store information in the database.
2. A Interface enables users to view, enter, and change data directly in database objects such as tables.
3. **to** create a form you need to select use wizard to create form option available under Database section.

#### Perform the following activities till you are confident:

S.No.	Activities
1.	Create a form
2.	Enter data in a table using a form
3.	Create a form for the academic database created in the earlier session. Populate the academic database with mark results using the form.

### SESSION 7: CREATE AND MANAGE QUERIES

Having created the tables and entering data into them, now you want to extract some information. That's when you query the database. As the name suggests, query is to collect specific information from the pool of data. A query helps us join information from different tables and filter that information. **Filtering** means

that the query uses criteria you provide it to hide some data and present only what you want to see. Some RDBMS provide a graphical means to create queries, but most RDBMS do not do so. That's where you use SQL (pronounced as "sequel") or Structured Query Language. Query languages are computer languages used to make queries into databases and information systems. Queries are commands that are used to define the data structure and also to manipulate the data in the database.

in order to execute queries click on the **Queries** option available on the left side under database section, click **Create Query in SQL View**. You can type the query in the window and execute it by using the F5 function key or by clicking the icon in the window.

Ex : 1) select \* from SDetails where Color='Blue';

2) INSERT INTO <table\_name><column1, column2, column3...> VALUES <value1, value2, value3 ...>;

3) update SDetails set Location = 'Bhubaneswar' where Rollno = 14;

4) delete from SDetails where ID=8;

### Fill in the blanks:

1. A Query helps to collect specific information from the pool of data in the database.
2. Select statement retrieves zero or more rows from one or more database tables or database views.
3. Insert statement is used to add one or more records to a database.
4. Update statement is used for modifying records in a database.
5. Delete statement is used to remove one or more records in a database.
6. Create Statement is used for creating a database or a table in any RDBMS Software.

### Perform the following activities till you are confident:

S.No.	Activities
1.	Open the academic database created in the previous sessions.
2.	Use the select query statement to query and sort on subjects marks scored was greater than 50%.
3.	Create a database for a school library.
	Hint : Create fields for book title, cost, provider, availability, etc
4.	Create a database for maintaining a song collection.
	Hint : Create fields for fields such as artist, movie, year released, etc.
5.	Create a database for collecting and maintaining census data.
	Hint : Create fields for fields such as First Name, Last Name, DOB, Place of birth, Employment Status, etc.

**SESSION 8: DESIGN REPORTS**

A report is used to generate the overall work outcome in a clear format. You can also create reports in database.

Click on Reports section under Database in the OpenOffice base application.

Once you select the option, you should see a window.

**Perform the following activities till you are confident:**

S.No.	Activities
1.	Create a report to display data from table
2.	Open the academic database created earlier.
3.	Design a report to display your entire academic score card.

**Fill in the blanks:**

1. A Report is used to generate the overall work outcome in a clear format.
2. To create reports you need to select Use Wizard to Create Report option available under tasks.

\*\*\*\*\* All the best\*\*\*\*\*