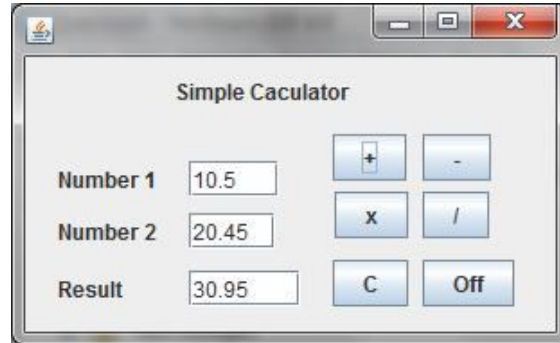


PRACTICAL – ASSIGNMENTS

Experiment No. 1:

Objective: Understanding and use of variables of float and other data types.

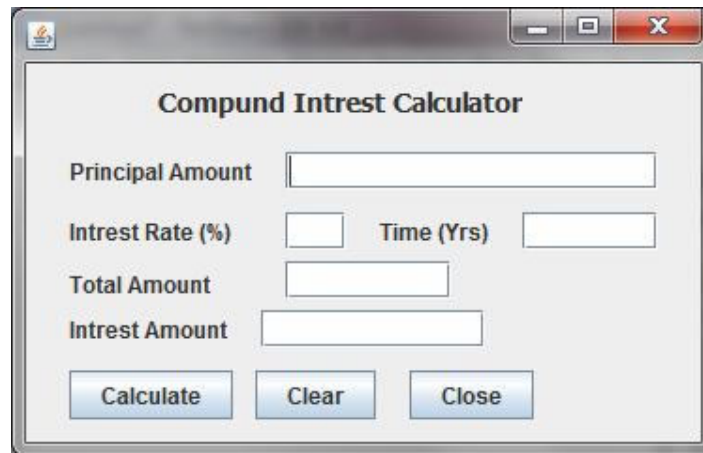
Task: Develop a simple Calculator application as per given screen snapshot, to implement +, -, x and / operations. The text boxes get cleared when 'C' button is clicked.



Experiment No. 2:

Objective: Understanding the real life application requirement and developing a solution.

Task: Develop a Compound Interest Calculator application as per given screen snapshot, to calculate total amount for given Amount, Rate of Interest and Time using $A = P(1 + R/100)^T$ and Interest $I = A - P$.



Experiment No. 3:

Objective: Understanding and use of Nested conditions in the Real life applications.

Task: A Quick Fox Transport Co. wants to develop an application for calculating amount based on distance and weight of goods. The charges (Amount) to be calculated as per rates given below.

Distance	Weight	Charges per Km.
≥ 500 Km	≥ 100 kg.	Rs. 5/-
	≥ 10 and < 100 kg.	Rs. 6/-
	< 10 kg.	Rs. 7/-
< 500 Km	≥ 100 Kg.	Rs. 8/-
	< 100 Kg.	Rs. 5/-

The screenshot shows a Java application window titled "Quick Fox Transport Co." with a standard Windows-style title bar (minimize, maximize, close buttons). The window contains several text input fields and two buttons. The fields are labeled "From (City)", "To (City)", "Weight (Kg)", "Distance (Km)", and "Amount". The values entered are "Delhi", "Mumbai", "800", "1200", and "6000.0" respectively. There are two buttons: "Calculate" and "Exit".

Experiment No. 4:

Objective: Understanding and use of Nested loops and Text Area control.

Task: Develop a Java application to print a Pattern for given character and steps, as per given screen shot.

The screenshot shows a Java application window titled "Pattern Generator" with a standard Windows-style title bar. It contains two text input fields labeled "Character" and "Step". The "Character" field contains "#" and the "Step" field contains "5". Below these fields is a text area displaying a pattern of hash symbols: a single # on the first line, ## on the second, ### on the third, #### on the fourth, and ##### on the fifth. At the bottom of the window are two buttons: "Generate" and "Clear".

Experiment No. 5:

Objective: Understanding the use of loops and mathematical operations.

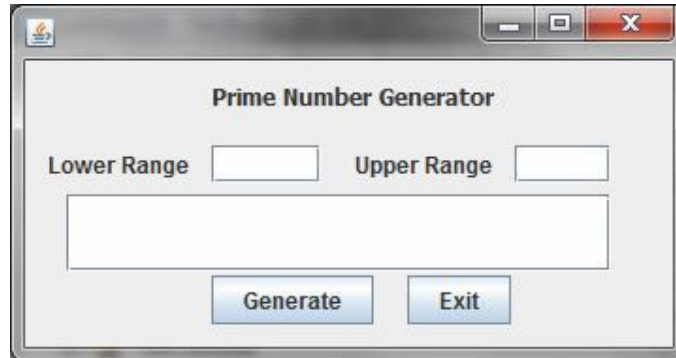
Task: Develop an application to compute the sum of digits for given number.

The screenshot shows a Java application window with a standard Windows-style title bar. It contains two text input fields. The first field is labeled "Enter Number" and contains the value "123". The second field is labeled "Sum of Digits" and contains the value "6". There are two buttons: "Sum" and "Exit".

Experiment No. 6:

Objective: Understanding and developing a logic to solve a problem. Use of nested loops and breaking it prematurely.

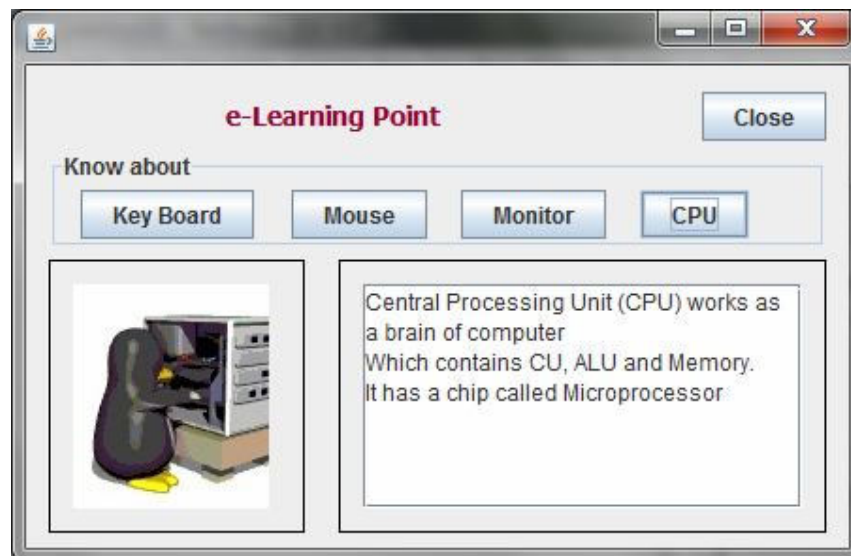
Task: Develop a Prime Number Generator Application which generates Prime numbers for given range. Prime numbers are those numbers which are divisible by one or itself only.



Experiment No. 8:

Objective: Displaying images on a Label and Text Area control.

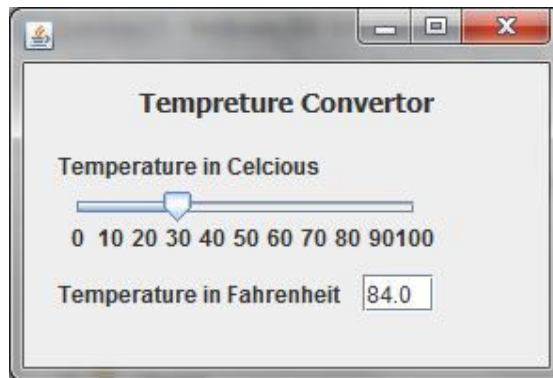
Task: Develop an e-Learning application with images and text information as per given screen shot.



Experiment No. 7:

Objective: Use of Slider or Scroll bar control to get user input and using it some calculation.

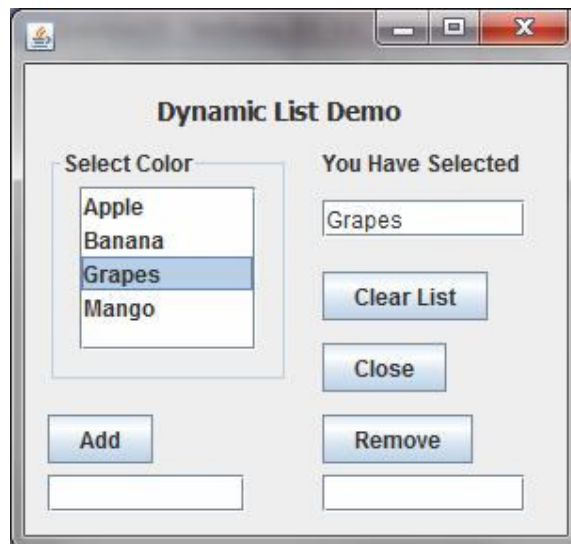
Task: Develop a Temperature Converter application which converts selected Celsius temperature on a scale and displays its equivalent Fahrenheit temperature.



Experiment No. 9:

Objective: Demonstration of use of List Dynamically through code.

Task: Develop an application as per given screen shot to Add , Remove the given members of list and display the selected item in a text field using List control.



Experiment No. 10:

Objective: Understanding and using the Radio Button in Real-life application to determine the selection of choice and calculations accordingly.

Task: Develop a Billing application for Happy Shopping- A retail chain involved in sales of Readymade garments. The happy Shopping offers discount to its members holding Platinum, Gold and Silver card. The 10% discount is given to Platinum card, 8% to Gold Card and 5% to Silver Card holders on sales amount.

The screenshot shows a window titled "Happy Shopping". It contains the following fields and controls:

- Item Name:** Text box containing "Shirt".
- Rate (per unit):** Text box containing "550".
- Quantity:** Text box containing "5".
- Total Amount:** Text box containing "2750.0".
- Discount:** Text box containing "275.0".
- Net Amount:** Text box containing "2475.0".
- Membership Card:** A group box containing three radio buttons: "Platinum" (selected), "Gold", and "Silver".
- Buttons:** "Calculate" and "Close".

Experiment No. 11:

Objective: Understanding and using the Radio Button in Real-life application to determine the selection of choices and calculations accordingly.

Task: The Entertainment Paradise- A theater in Delhi wants to develop a computerized Booking System. The proposed Interface is given below. The theater offers different types of seats. The Ticket rates are- Stalls- Rs. 625/-, Circle- Rs.750/-, Upper Class- Rs.850/- and Box- Rs.1000/-. A discount is given 10% of total amount if tickets are purchased on Cash. In case of credit card holders 5% discount is given.

The screenshot shows a window titled "Theator Booking System". It contains the following fields and controls:

- Seat Type:** A group box containing four radio buttons: "Stalls", "Circle" (selected), "Upper Class", and "Box".
- Payment Mode:** A group box containing two radio buttons: "Cash" (selected) and "Credit Card".
- Total Seats:** Text box containing "5".
- Total Amount:** Text box containing "3750.0".
- Discount:** Text box containing "375.0".
- Net Amount:** Text box containing "3375.0".
- Buttons:** "Calculate" and "Close".

Experiment No. 12:

Objective: Understanding the use of various controls in Real life application.

Task: ABC Consultancy is a placement organization, assists job seekers. The Entry form has to be designed to facilitate the Registration Process with following features.

1. When Submit button is pressed, the following things should happen.
 - (a) If Post Graduate is checked, the 10+2 and Graduate checkboxes should also get selected automatically.
 - (b) If Graduate is checked, the 10+2 checkboxes should also get selected.
 - (c) A Message Box with "Hello Mr. you are registered" or "Hello Miss... you are registered" as per Gender of candidate.
2. When Clear Button is pressed, all the text boxes, check boxes gets cleared, and Male and Science option is selected by default.

The screenshot shows a Windows-style application window titled "ABC Consultancy". Inside, there's a form with the following elements:

- Name:** A single-line text input field.
- Gender:** Two radio buttons labeled "Male" and "Female".
- Qualification:** Three checkboxes labeled "10+2", "Graduate", and "Post Graduate".
- Stream:** Three radio buttons labeled "Science", "Commerce", and "Arts".
- Buttons:** Two buttons, "Submit" and "Clear", are positioned to the right of the Gender section.

Experiment No. 13:

Objective: Understanding the need of Real life applications.

Task: The Milton Casting Company has developed an application to calculate the wage of its workers. The following functionalities are expected.

1. The Wage rate are Rs.150/- (per day) for male and Rs.130/- for females.
2. An additional amount Rs.50/- per day is paid if worker is skilled.
3. When Calculate Button is clicked the Total wage amount is calculated and displayed in relevant Text box.
4. When Clear Button is clicked, all the text boxes get cleared and Male option is selected.

The screenshot shows a Windows-style application window titled "Wage Calculator". Inside, there's a form with the following elements:

- Name:** A single-line text input field.
- Gender:** Two radio buttons labeled "Male" and "Female".
- Skilled:** A checkbox.
- No. of Days Worked:** A single-line text input field.
- Total wage amount:** A single-line text input field.
- Buttons:** Two buttons, "Calculate" and "Clear", are positioned to the right of the input fields.

Experiment No. 14:

Objective: Understanding the need of Real life applications.

Task: The Fashion Gallery- a leading garments shop wants to develop an application to calculate the discount Amount. The following functionalities are expected.

1. The discount is given on the basis on payment mode.
Cash – 10%, Cheque – 8% and Credit – 5% of bill amount.
If Bill amount is more than 10000 then additional 5% discount is also given.
2. Initially, Calculate Net Amount is disabled, but when user click on Calculate Discount button the discount amount is calculated and displayed, and Calculate Net Amount Button is enabled.
3. When Calculate Net Amount is clicked the Net Amount is calculated and displayed in Net Amount Text Box.
4. When Exit Button is clicked, a Confirm dialog appears and application is closed only when Yes option in confirm dialog is selected.

Fashion Gallery

Name

Bill Amount Payment Mode **Cash** ▼

Discount Net Amount

Experiment No. 15:

Objective: Developing Multi-Frame Application using JDialog Control.

Task: Develop an e-Mail sending Application which facilitates the login and composing screen as given below. A Message box also displayed with proper message when invalid password is given by user and when mail is sent after pressing Send button.

Login to your Mail-Box

User ID

Password

From :

To:

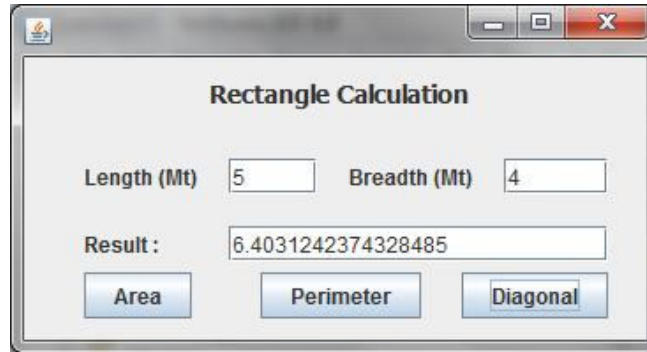
Subject

Experiment No. 16:

Objective: Understanding and use of Java's math methods and user defined methods.

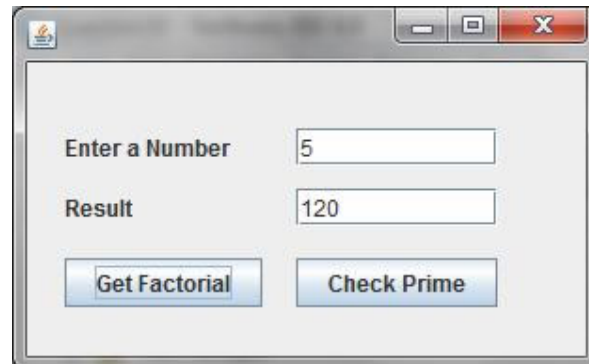
Task: Develop an application which calculates Area, Perimeter and Diagonal for given length and breadth using custom methods. The functions Area(), Perimeter() and Diagonal() method is called with parameters when user clicks on the appropriate buttons.

If X and Y are the sides then you may calculate the Area= $X*Y$, Perimeter= $2(X+Y)$ and Diagonal= $\sqrt{X^2+Y^2}$.

**Experiment No. 17:**

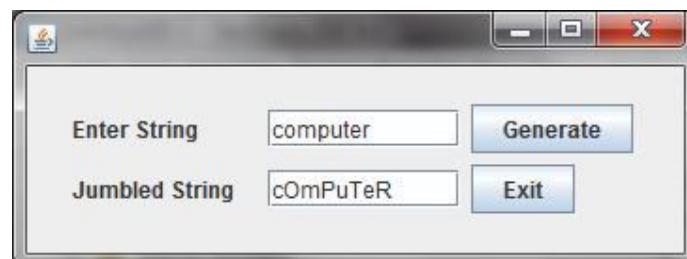
Objective: Understanding the use of User-defined methods in the application.

Task: Develop an application to compute the Factorial and Checking Prime for a given number, using custom methods. A method named factorial() and CheckPrime() along with suitable parameters are called when Get Factorial and Check Prime button is pressed respectively.

**Experiment No. 18:**

Objective: Understanding the use of String library methods.

Task: Develop an application to generate the jumbled string for given string. The jumbled string is obtained by converting each alternate character in uppercase.



Experiment No. 19:

Objective: Understanding the use of String library methods.

Task: Develop an application to Analyze the given string by counting the number of vowels, consonants, digits and spaces etc.

Experiment No. 20:

Objective: Understanding the use of String library methods.

Task: Develop an application to print the pattern from given word.

Experiment No. 21:

Objective: Understanding the Database Handling in JAVA application.

Task: Design a Java application to display the records of the **Emp** table of **MYORG** database designed in the MySQL.
The Structure of Emp table is as follows.
Emp [Name Char(40), Designation Char(30), Pay Decimal(9,2), City Char(40)]

Name	Designation	Pay	City
Amitabh	Manager	30000	Lucknow
Sanjay	Clerk	10000	Jaipur

Experiment No. 22:

Objective: Understanding the Database Handling in JAVA application.

Task: Design a Java application to display the records of the **Emp** table of **MYORG** database designed in the MySQL. The application provides facility to filter the records on the basis of given Pay.
The Structure of Emp table is as follows.
Emp [Name Char(40), Designation Char(30), Pay Decimal(9,2), City Char(40)]

Name	Designation	Pay	City
Amitabh	Manager	30000	Lucknow
Ankur	Programmer	25000	Kanpur

Filter Pay >= 15000

Display Record Exit

Experiment No. 23:

Objective: Understanding the Database Handling in JAVA application.

Task: Design a Java application to display the records of the **Emp** table of **MYORG** database designed in the MySQL. The Structure of Emp table is as follows.
Emp [Name Char(40), Designation Char(30), Pay Decimal(9,2), City Char(40)]

1. When Display record button is pressed, all the records are displayed.
2. When Calculate Total Pay button is pressed, the total pay is calculated and displayed in the Total Pay text box.

Name	Designation	Pay	City
Amitabh	Manager	30000	Lucknow
Sanjay	Clerk	10000	Jaipur
Ankur	Programmer	25000	Kanpur
Raman	Clerk	12000	Delhi

Display Record Calculate Total Pay

Total Pay 77000 Exit

Experiment No. 24:

Objective: Understanding the Database Handling in JAVA application.

Task: Design a fully featured Java application to navigate the records of the **Emp** table of **MYORG** database designed in the MySQL. The Structure of Emp table is as follows.

Emp [Name Char(40), Designation Char(30), Pay Decimal(9,2), City Char(40)]

1. The First record is displayed when application is executed.
2. Records are displayed in Text boxes as per Navigation Buttons like First, Next etc are clicked.
3. Initially, Save and Cancel Button is disabled. When Add button is clicked, the Save and Cancel button is enabled and all the text boxes are cleared. The record is saved when Save button is pressed.
4. When Delete Button is clicked, the current record is deleted after getting confirmation from the user in Confirm dialog box.
5. When Modify button is clicked, user can edit the record. The modified record is saved when Save button is pressed.

The screenshot shows a Java application window titled "Employee Details". Inside the window, there are four text boxes for employee information: "Name : Amitabh", "Designation: Manager", "Pay: 30000", and "City: Lucknow". To the right of these text boxes is a section titled "Opeartion" (note the typo) containing three buttons: "Add", "Delete", and "Modify". Below the "Opeartion" section are two buttons: "Save" and "Cancel". At the bottom of the window is a section titled "Goto" containing four buttons: "First", "Next", "Previous", and "Last". The window has a standard Windows-style title bar with minimize, maximize, and close buttons.

Experiment No. 25:

Objective: Understanding the Web Page and use of different Tags and attributes.

Task: Design the following webpage using a Text Editor like Notepad. The following general instructions to be followed.

- The pages should have a Green color as back ground and base font as Arial size 10.
- All heading are in Red.
- Background color of table is sky blue.
- Format the paragraphs Bold, Italic and underline as appeared.



GLOBAL WARMING- A BURNING ISSUE

What is global warming?

Global warming is when the earth heats up (the temperature rises). It happens when greenhouse gases (**carbon dioxide, water vapor, nitrous oxide, and methane**) trap heat and light from the sun in the earth's atmosphere, which increases the temperature. This hurts many people, animals, and plants. Many cannot take the change, so they die.

What causes global warming?

Many things cause global warming. One thing that causes global warming is electrical pollution. ***Electricity causes pollution in many ways, some worse than others.*** In most cases, fossil fuels are burned to create electricity. Fossil fuels are made of dead plants and animals. Some examples of fossil fuels are oil and petroleum. Many pollutants (chemicals that pollute the air, water, and land) are sent into the air when fossil fuels are burned. Some of these chemicals are called greenhouse gasses. We use these sources of energy much more than the sources that give off less pollution. Petroleum, one of the sources of energy, is used a lot.

What are people doing to stop global warming?

People are doing many things to try to stop global warming.

- One thing people are doing is carpooling. Carpooling is driving with someone to a place that you are both going to. This minimizes the amount of greenhouse gases put into the air.
- Another thing that people are doing is being more careful about leaving things turned on like the television, computer, and the lights. This helps our planet.
- More people are even riding busses, walking to school, and riding their bikes to lower the amount of greenhouse gases in the air.
- Planting trees and recycling also helps. If you recycle, less trash goes to the dump, and less trash gets burned. As a result, there are fewer greenhouse gasses in our atmosphere.
- Watch what you buy. Many things, such as hairspray and deodorant, now are made to have less of an impact on the atmosphere. Less greenhouse gasses will rise into the air, and global warming will slow down.

Global Warming Data

Year	Role of Pollutants (%)		Growth (%)
	Organic	In-Organic	
2008	30	45	8
2009	35	55	12
2010	38	60	18

Experiment No. 26:

Objective: Understanding the Web Form and use of different components to design an interactive form.

Task: Design the following web form using a Text Editor like Notepad. The following general instructions to be followed.

- The form should post to mail-id (admission@myschool.com) when user presses SUBMIT button.
- The course options are BBA, MBA, MCA.
- Use Green color as back ground and base font as Arial size 10.
- Attach the controls as per design.

ADMISSION ENQUIRY FORM


Name :

Address:

City :

Qualification: ☐ 10+2 ☐ Graduate ☐ PG

Gender: ☐ Male ☐ Female

Course: 

Remark:

Experiment No. 27

Objective: Understanding the use of DML command at MySQL platform.

Task: Open MySQL and Login with your ID and password given by your Teacher. Write and Execute the SQL command for the following and also write the steps/commands in your Practical notebook.

- 1 Write commands to display the system date.
- 2 Write a command to display the name of current month.
- 3 Write command to print the day of the week of your birthday in the year 2015.
- 4 Write the command to round off value 15.193 to nearest ten's i.e. 20.
- 5 Write a query to find out the result of 6^3 .
- 6 Create and open Database named MYORG.
- 7 Create a table name Emp with following structure (EmpID Primary Key)

EmpID	EmpName	Designation	DOJ	sal	comm
Number	Varchar	Char(10)	Date	Number	Number

- 8 Insert the following Records-

EmpID	EmpName	Designation	DOJ	Sal	comm
8369	SMITH	CLERK	1990-12-18	800.00	NULL
8499	ANYA	SALESMAN	1991-02-20	1600.00	300.00
8521	SETH	SALESMAN	1991-02-22	1250.00	500.00
8566	MAHADEVAN	MANAGER	1991-04-02	2985.00	NULL
8654	MOMIN	SALESMAN	1991-09-28	1250.00	400.00
8698	BINA	MANAGER	1991-05-01	2850.00	NULL
8882	SHIVANSH	MANAGER	1991-06-09	2450.00	NULL
8888	SCOTT	ANALYST	1992-12-09	3000.00	NULL
8839	AMIR	PRESIDENT	1991-11-18	5000.00	NULL
8844	KULDEEP	SALESMAN	1991-09-08	1500.00	0.00

- 9 Write a query to display all the records with all the columns.
- 10 Write a query to display EmpName and Sal of employees whose salary are greater than or equal to 2200
- 11 Write a query to display details of employs who are not getting commission.
- 12 Write a query to display employee name and salary of those employees who don't have their salary in range of 2500 to 4000.
- 13 Write a query to display the name of employee whose name contains "A" as third alphabet in Ascending order of employee names.
- 14 Write a query to display the ename and sal with 50% of sal as DA.
- 15 Write a query to display details of employs with the text "Not given", if commission is null.
- 16 Display the distinct job titles offered by the Organization.
- 17 Display the Names of employees who are working as Manager or Analyst.
- 18 Display the names of employees who joined on or after 01/05/1991.
- 19 Display the employee records in order by DOJ.
- 20 Display the Distinct Designation in the Organisation.

Experiment No. 28

Objective: Understanding the use of DML command with MySQL functions.

Task: Open MySQL and load MYORG database. Write and Execute the SQL command for the following and also write the steps/commands in your Practical notebook.

1. Open database MYORG.
2. Create the following Table **DEPT** with DeptID as Primary Key.

DeptID	DeptName	MgrID	Location
Number	Varchar	Number	Char(40)

3. Insert the following record in the DEPT Table.

DeptID	DeptName	MgrID	Location
10	SALES	8566	Mumbai
20	PERSONEL	8698	Delhi
30	ACCOUNTS	8882	Delhi
40	RESEARCH	8839	Banglore

4. Alter the table EMP as Add a column DeptID (Number)
5. Add Foreign Key as DeptID which refers DeptID column of DEPT table.
6. Update DeptID of EMP Table with valid DeptIDs to link both tables.
7. Show the minimum, maximum and average salary of Managers.
8. Count the number of Clerk in the Organization.
9. Display the Designation wise list of employees with name, Sal and Date of Joining.
10. Count the number of employees who are not getting commission.
11. Show the average salary for all departments with more than 5 working people.
12. List the count of Employees grouped by DeptID.
13. Display the maximum salary of employees in each Department.
14. Display the name of Employees along with their Designation and Department Name.
15. Count the number of Employees working in ACCOUNTS department.
16. Display the name of employees working in Delhi.
17. Display the name of employees working in the same city from where they belongs.
18. Display the name of Employees who is managing SALES department.
19. Display the name of employees who are working in Delhi and getting more than 5000.
20. Display the details of employees who are working in RESEARCH Department.

Experiment No. 29

Objective: Understanding the use of DDL commands.

Task: Write and Execute the SQL command for the following and also write the steps/commands in your Practical notebook.

1. Create table CUSTOMER as per following Table structure.

Column Name	CustID	CustName	CustAdd	CustCity	CustPhone
Data Type	NUMBER	VARCHAR	VARCHAR	VARCHAR	VARCHAR
Length	7	30	40	30	10
Constraints	Primary			Not Null	

2. Insert 5 records with relevant information in the Customer table.
3. Update all the records as add 'Mr.' with CustName.
4. Add one column Email of data type VARCHAR and size 30 to table Customer.
5. Add one more column CustIncomeGroup of data type VARCHAR(10).
6. Drop the column CustomerIncomeGroup from table Customer.
7. Modify the column CustCity as change the size 40 characters long.
8. Delete all the records who belongs to 'Jaipur'
9. Create table ORDER as per following Table structure. Also make CustNo as Foreign Key which refers CustID of CUSTOMER table.

Column Name	OrderNo	CustNo	ItemName	Qty	Price
Data Type	NUMBER	NUMBER	VARCHAR	NUMBER	NUMBER
Length	5	7	30	5	6,2
Constraints	Primary			>=2	Not Null

10. Add 5 records as per defined constraints in Order table.
11. Create a table TEMPCUSTOMER from existing CUSTOMER table with CustID, CustName and CustPhone columns.
12. Write command to show the Tables in the MYORG Database.
13. Drop the TEMPCUSTOMER table.
14. Drop the Foreign Key constraints from the Order Table.
15. Drop the database MYORG.

Experiment No. 30

Objective: Understanding the Application Area of IT and latest happening in IT.

Task: Do the following task.

1. Visit Three Web sites related to e-Governance and e-Business and point out its major services offered to the people.
 2. Open your account in www.moodle.org and make your own page of Interest.
 3. Visit your School's website and available Information & Computer Technology (ICT) infrastructure (Number of LABs, PCs , Software etc.). Make a report with your recommendation to improve ICT facilities and Web site.
 4. Visit your Library and analyze the requirement for developing a Library Information system. Design an Interactive GUI interface with Menus, expected Reports and Library database with relevant tables.
 5. Design, Develop, Test and document an IT Project assigned by your teacher.
-

PROJECT – WORK

As per the CBSE's curriculum, students appearing XII examination must assigned and complete a project work. The Project work must be submitted for evaluation at the time of Practical examination.

Students in group of 2-3 are required to work collaboratively to develop a project using Programming and Database skills learnt during the course. The project should be an application with GUI front-end based on any one of the following domains- e-Governance, e-Business and e-Learning.

How to start your Project work:

Stage 1: Submission of synopsis

An individual or group of 2-3 students may choose a topic (or assigned by the teacher) for their project work. You may prepare and submit a Synopsis (Preliminary Study and Analysis Report) in 3-5 pages, including the following-

- Title of the Project.
- Statement about the problem.
- Why is the particular topic chosen?
- Methodology to be used.
- Objective and Scope.
- Process Description (major functions to be developed)
- Hardware & Software to be used – Server, Clients, Back end, Tools, Software platform, programming language etc.
- Role of the Team members in the project.
- Limitations of the Project
- Conclusion
- Reference and bibliography.

After approval of the synopsis by concerned teacher/guide the project work may be started.

Stage 2: Plan your project

You may prepare your action plan and time line for different works (Study, design, coding, testing, documentation etc.) to be done during the development of the project. Distribute the task among team members as per role of the members in the project.

Stage 3: Develop your Project

The following activities to be done to design a software project-

1. Study the existing system, collect information about the requirement of the user, expected reports etc.
 2. Design the Database and tables with proper constraints and fill it with live/test data.
 3. Design the Interface/ layout of the screens along with Menus, Forms using GUI controls and tools in IDE.
 4. Design the format for Softcopy/Hardcopy Reports.
 5. Design the expected methods (processes) and frame their logic to manipulate the stored/entered data.
 6. Code the methods in the IDE and test their functionalities and errors etc.
 7. Conduct a final Integration testing of the software/system to verify the expected functions.
-

Stage 4: Prepare a Project Report (Documentation)

After completing the development and testing work, you have to prepare a Project Report in 30-50 pages of A4 size paper with 1' left, right, top, bottom margin. The report may include the following-

1. Cover Page as per format given in Annexure 1.
2. Project Certificate as per format given in Annexure 1.
3. Acknowledgement
4. Main Report
 - ✓ Objective & Scope of the Project.
 - ✓ Theoretical Background
 - ✓ Definition of Problem
 - ✓ System Planning (Action plan & Time line Chart)
 - ✓ Methodology adopted, Details of Hardware & Software used.
 - ✓ Input and Output Interface/Screen Design with Menus etc.
 - ✓ Printout of the Coding of methods.
 - ✓ Structure of Tables (Column Name, data types, size and constraints etc.)
 - ✓ Test Report, Printout of the Report etc.
 - ✓ User / Operational Manual – (How to install, How to operate etc.)
5. Annexure:
 - ✓ Brief background of the organization.
 - ✓ Reference(Bibliography/ Books/ Websites)

Suggested Topics for Project Work:

The project should be a Real-life Database based Application with GUI front-end based on any one of the like e-Governance, e-Business and e-Learning, System Utilities etc. The application must handle the fully or partial problem area with complete MIS functionalities.

The following topics/ area may be selected /assigned by/to students (full or part as per complexity and size of the problem area).

1. Banking Application
 2. Cyber Café Management Application.
 3. School Management Application (Admission/Examination/Staff Mgt/Inventory etc.)
 4. Invoicing and Billing Application.
 5. Accounting System Application.
 6. Computerization of Hotels, Restaurant etc.
 7. Testing Applications (Quizzes, Games etc.)
 8. Personnel Management System Application of an organization
 9. Registration and Job Searching Application for Placement Agencies.
 10. Computerization of catalogue of Music/ CD Library /store.
 11. Library Information System
 12. Computerization of Auto-Vehicle Sales Agencies.
 13. Computerization of Auto-Vehicle Service Agencies.
 14. Inventory control system Application
 15. Ticket/ Reservation system for Bus/Train /Air etc.
 16. Theater Booking System Application.
 17. Personal Address Book system
 18. Computer-Aided Learning Tutorials on any course/subjects.
 19. Portfolio Management of Investments/ Financial Transactions
 20. Trading system of Shares/Public Issue offer of a company.
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