PRACTICAL-ASSIGNMENTS [LAB WORK] CLASS XII IP

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.

	a: 1 a		
	Simple Cacu	llator	
Number 1	10.5	+	151
Number 2	20.45	x	1
Result	30.95	С	Off

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.

Compun	d Intre	est Ca	lculato	or .	
Principal Amount					
Intrest Rate (%)		Tim	e (Yrs)		
Total Amount					
Intrest Amount					
Calculate	Clear		Close		

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/-

Quick		
rom (City)	Delhi	
To (City)	Mumbai	
Weight (Kg)	800]
)istance (Km)	1200	Calculate
Amount	6000.0	Exit

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.

Patte	rn Gen	erator	
Character	#	Step	5
##			
###			
##### ######			
mmmm			
Gene	rate		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.

Enter Number	123	Sum
Sum of Digits	6	Exit

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. 7:

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.



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.

elect Color	You Have Selected
Apple Banana	Grapes
Grapes	Charlint
Mango	Clear List
	Close
Add	Remove

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 Shoping- A retail chain involved in sales of Readymade garments. The happy Shoping 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.

	Happy Shopin	ıg
tem Name:	Shirt	
Rate (per unit)	550	Membership Card
Quantity:	5	Intinum
Total Amount:	2750.0	O Silver
Discount:	275.0	Calculate
Net Amount:	2475.0	Curculate

Experiment No. 10:

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.

	Theator	Booking Syste	m
Seat Type	Circle	O Upper Class	O Box
Payment Mode	Credit C	ard	Total Seats
Cash	- oroun o	uru .	5
Total Amount:	3750.0		0
Total Amount:	3750.0 375.0		Calculate

Experiment No. 11:

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

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.

ABC Consu	litancy
me	
ender	Submit
Male Femal	Clear
ualification	Stream
10+2	○ Science
Graduate	O Commerce
	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O

Experiment No. 12:

Objective: Understanding the need of Real life applications.

The Milton Casting Company has developed an application to calculate the wage of its Task: 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.

	Wage Calcula	tor
lame		
	🔾 Male 🛛 Female	Skilled
lo. of D	ays Worked	Calculate
otal w	age amount	Clear

Experiment No. 13:

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.

Fa	ashion Gallery	
Name		
Bill Amount	Payment Mode	Cash 💌
Discount	Net Amount	
Calculate Disco	unt Calculate Net A	mount Exit

Experiment No. 14:

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.

	From: abc@gmail.com
	To: xyz@gmail.com
<u>s</u>	Subject Hello
Login to your Mail-Box	Dear Friend, I am quit well
User ID abd	How are you?
Password ••••••	
Sign In Sign Out	Send Close

Experiment No. 15:

Objective: Task:

Understanding and use of Java's math methods and user defined methods. 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= $\sqrt{(X^2+Y^2)}.$

	Rectangle Calcul	ation
Length (Mt)	5 Bread	th (Mt)
Result :	6.4031242374328	485
Aroa	Derimeter	Diagona

Experiment No. 16:

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.

Enter a Number	5
Result	120
Get Factorial	Check Prime

Experiment No. 17:

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. 18:

Objective:Understanding the use of String library methods.**Task:**Develop an application to print the pattern from given word.

P	atte	rn Ge	enera	tor	
Enter V	Vord	Java	1		
J					-
Ja					
Jav					
Java					
4		III			

Experiment No. 19:

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
		-1	

Experiment No. 20:

Task:

Objective: Understanding the Database Handling in JAVA application.

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)]

	Employee	Details	
Name	Designation	Pay	City
Amitabh	Manager	30000	Lucknow
Ankur	Programer	25000	Kanpur
ilter Pay>=	15000	Displa	v Record E

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)]

- 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.

Designation	Pay	City
Manager	30000	Lucknow
Clerk	10000	Jaipur
Programer	25000	Kanpur
Clerk	12000	Delhi
	Manager Clerk Programer Clerk	Manager 30000 Clerk 10000 Programer 25000 Clerk 12000

Experiment No. 22:

Task:

Objective: Understanding the Database Handling in JAVA application.

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.

	Emp	loyee Deta	ails	
			0	Opeartion
Name : A	mitabh			Add
Designation	: Manager	1]	Delete
Pay: 30	000			Modify
City: Lu	cknow			
				ave
Goto				

Experiment No. 23:

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

- 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.



Task:

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 (<u>carbon dioxide. water vapor. nitrous oxide. and methane</u>) 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						
Voor	Role of Pollu	Crowth(0/c)				
fear	Organic	In-Organic	Growur (%)			
2008	30	45	8			
2009	35	55	12			
2010	38	60	18			

Experiment No. 24:

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 (<u>admission@myschool.com</u>) 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 :	
Qualificati	on: 10+2 Graduate PG
Gender:	O Male O Female
Course:	MCA []
Remark:	
Subm	nit Close

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

- 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 6³.
 - **6** Create and open Database named MYORG.
 - 7 Create a table name Emp with following structure (EmpID Primary Kay)

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.

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 Kay.

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.

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.

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 <u>www.moodle.org</u> 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.