VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

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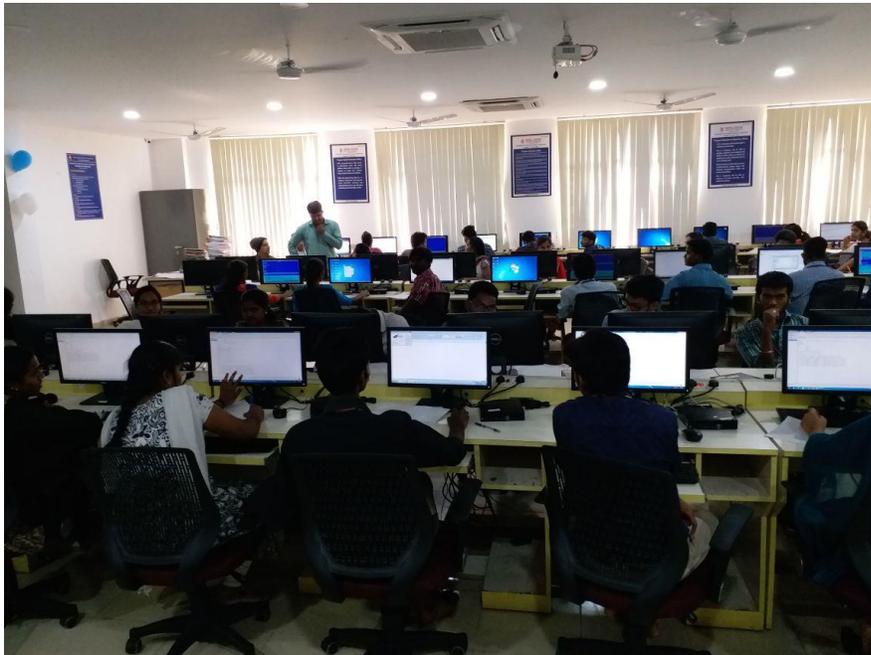
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

II B.Tech II Semester

DATABASE MANAGEMENT SYSTEMS LAB (A14587)

Course outcomes: After completing this course the student must demonstrate the knowledge and ability to:

1. Apply SQL statements including DDL, DML and DCL statements to perform different operations.
2. Design different views of tables for different users.
3. Apply various integrity Constraints on the database tables
4. Apply the Normalization techniques to the data base for consistency.
5. Implement PLSQL concepts like cursors, procedures and triggers.

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LIST OF EXPERIMENTS

1. Database Schema for a customer-sale scenario
Customer (**Cust id: integer,** cust_name: string)
Item (**item_id: integer,** item_name: string, price: integer)
Sale (**bill_no: integer,** bill_data: date, **cust_id: integer, item_id: integer**, qty_sold: integer)
For the above schema, perform the following—

a) Create the tables with the appropriate integrity constraints
b) Insert around 10 records in each of the tables
c) List all the bills for the current date with the customer names and item numbers
d) List the total Bill details with the quantity sold, price of the item and the final amount
e) List the details of the customer who have bought a product which has a price>200
f) Give a count of how many products have been bought by each customer
g) Give a list of products bought by a customer having cust_id as 5
h) List the item details which are sold as of today
i) Create a view which lists out the bill_no, bill_date, cust_id, item_id, price, qty_sold, amount

Create a view which lists the daily sales date wise for the last one week

2. Database Schema for a Student Library scenario
Student(**Stud_no : integer,**Stud_name: string) Membership(**Mem_no: integer**,**Stud_no: integer**)
Book(**book_no: integer**, book_name:string, author: string)
Iss_rec(**iss_no:integer**, iss_date: date, **Mem_no: integer**, **book_no: integer**)
For the above schema, perform the following
a) Create the tables with the appropriate integrity constraints
b) Insert around 10 records in each of the tables
c) List all the student names with their membership numbers
d) List all the issues for the current date with student and Book names
e) List the details of students who borrowed book whose author is CJDATE
f) Give a count of how many books have been bought by each student
g) Give a list of books taken by student with stud_no as 5
h) List the book details which are issued as of today

i) Create a view which lists out the iss_no, iss _date, stud_name, book name
j) Create a view which lists the daily issues-date wise for the last one week

3. Database Schema for a Employee-pay scenario
Employee (**emp_id : integer**, emp_name: string) department (**dept_id: integer**,dept_name:string)
Paydetails (**emp_id: integer**, **dept_id: integer**, basic: integer, deductions: integer, additions: integer, DOJ: date) payroll (**emp_id: integer**, pay_date: date)

For the above schema, perform the following
a) Create the tables with the appropriate integrity constraints
b) Insert around 10 records in each of the tables
c) List the employee details department wise
d) List all the employee names who joined after particular date
e) List the details of employees whose basic salary is between 10,000 and 20,000
f) Give a count of how many employees are working in each department
g) Give a names of the employees whose netsalary>10,000
h) List the details for an employee_id=5
i) Create a view which lists out the emp_name, department, basic, dedeuctions, netsalary
j) Create a view which lists the emp_name and his netsalary

4. Database Schema for a Video Library scenario
Customer (cust_no: integer,cust_name: string)
Membership (**Mem_no: integer**, **cust_no: integer**)
Cassette (**cass_no:integer**, cass_name:string, Language: String)
Iss_rec(**iss_no: integer**, iss_date: date, **mem_no: integer**, **cass_no: integer**)
For the above schema, perform the following

a) Create the tables with the appropriate integrity constraints
b) Insert around 10 records in each of the tables
c) List all the customer names with their membership numbers
d) List all the issues for the current date with the customer names and cassette names
e) List the details of the customer who has borrowed the cassette whose title is " The Legend"
f) Give a count of how many cassettes have been borrowed by each customer
g) Give a list of book which has been taken by the student with mem_no as 5
h) List the cassettes issues for today
i) Create a view which lists outs the iss_no, iss_date, cust_name, cass_name
j) Create a view which lists issues-date wise for the last one week

5. Database Schema for a student-Lab scenario
Student(**stud_no: integer**, stud_name: string, **class: string**)
Class(**class: string,descrip: string**)
Lab(**mach_no: integer**, Lab_no: integer, description: String)
Allotment(**Stud_no: Integer, mach_no: integer, dayof week: string**)
For the above schema, perform the following

a) List all the machine allotments with the student names, lab and machine numbers
b) List the total number of lab allotments day wise

c) Give a count of how many machines have been allocated to the 'CSE' class
d) Give a machine allotment details of the stud_no 5 with his personal and class details
e) Count for how many machines have been allocated in **Lab_no 1** for the day of the week as "Monday"
f) How many students class wise have allocated machines in the labs
g) Create a view which lists out the stud_no, stud_name, mach_no, lab_no, dayofweek
h) Create a view which lists the machine allotment details for "Thursday".

6. Create a cursor, which displays all employee numbers and names from the EMP table.

7. Create a cursor, which update the salaries of all employees as per the given data.

8. Create a cursor, which displays names of employees having salary > 50000.

9. Create a procedure to find reverse of a given number

10. Create a procedure to update the salaries of all employees as per the given data

11. Create a procedure to demonstrate IN, OUT and INOUT parameters

12. Create a function to check whether given string is palindrome or not.

13. Create a function to find sum of salaries of all employees working in depart number 10.

14. Create a trigger before/after update on employee table for each row/statement.

15. Create a trigger before/after delete on employee table for each row/statement.

16. Create a trigger before/after insert on employee table for each row/statement.

LIST of EQUIEMENT

S.No	Name Of the equipment	Configuration	QTY
1	Desktop	DELL VOSTRO 3902, INTEL R CORE I3 4160,3.60GHz, 19'' LED Monitor, 4GB RAM 500 GB HDD.	30
		ACER –Pentium Dual Core CPU E5500@2.80GHZ,1GB RAM,160GB HDD,19'' LCD Monitor	36
2	PROJECTOR		1
3	D-LINK Switch	24 ports	3
4	Software	MySql	