BSC – IV

Course Code: EC - 202

Course Name: DATABASE MANAGEMENT SYSTEM [DBMS]

Objectives:

After completion of this course student will be able to know

- Basic concepts of Database Management System.
- Database objects, its properties and its worth of implementations.
- Management and manipulation of data using tables, queries, forms and reports.

Contents:

Unit – I **Introduction :**

Introduction to Database Management Systems and Relational Database Management Systems , overview of normalization and joins, introduction to MS Access database, opening existing database, creating new database, overview of its objects like file, table, query ,form, report, pages and module

Unit –II **Data Type, Tables, Relationship:**

Introduction to Data types and its properties, creating a table by wizard, by datasheet, by design view, introduction to fields and records, resizing, deleting , editing the columns, input mask, introduction to referential integrity, primary key, relationship between tables, finding, sorting records column wise, use of wild cards.

Unit – III **Querying and Filtering Data:**

Introduction to query and its type in MS Access, creating new query by design view, wizard and SQL view, simple design of query, simple query, selecting field to view, sorting field, hiding field, entering criteria, running query. Introduction to expression builder, action queries, cross–tab query, make new table query, parameter query.

Unit – IV **Forms and Reports:**

Creating new form by auto form, wizard, design view, introduction to toolbox and its control, use of controls, generating report, by Auto Report, Report using wizard, Create Report Using Design, Open Report, Print Report.

Main Reference Book(s):

(i) Teach yourself Access for windows by Charles siegel BPB Publications
(ii) The Complete reference of Microsoft Office
(iii) Ms-Office 2003 for everyone by Sanjay Saxena (Vikas Publication House Pvt. Ltd.)
(iv) MS Access Tutor, BPB Publications

SUGGESTED ADDITIONAL READING BOOKS:

(i) Microsoft Office 2003 The Complete Reference by Curt Simmons, Guy Hart-Davis, Jennifer Kettell
(ii) Computer Application III, HK Arts College Publications, Ahmedabad.
(iii) Multimedia and Webdesign Course, BPB Publications
(iv) Successful projects in access, BPB Publications, Ahmedabad

Accomplishments of the student after completing the Course:

- Student would be able to store different types of data in tabular format in database structure, to manipulate process and retrieve data using various types of queries and represent data using reports.

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PRACTICAL : DBMS EXERCISES

1. Create the following tables with given structure and specifications:

(i) Customer master table: **cust**

Column Name	Format	Remarks
cust_id	text(3)	primary key, not null
lname	text (15)	
fname	text (15)	
area	text (15)	
phone_no	number(9)	

(ii) Movies master table: **movie**

Column Name	Format	Remarks
mv_no	number(2)	primary key, not null
title	text (25)	
type	text (10)	
star	text (25)	
price	text (8,2)	

(iii) Invoice Transaction Table: **invoice**

Column Name	Format	Remarks
inv_no	text (3)	primary key, not null
mv_no	number(3)	
cust_id	text(3)	
issue_date	date	
return_date	date	

2. Insert the following data into their respective tables:

(i) Data for **cust** table:

Cust_id	***Lname***	***Fname***	***Area***	***Phone_no***
a01	Bayross	Iran	sa	6125467
a02	Saitwal	Vandana	mu	5569763
a03	Jaguste	Parmada	da	5324252
a04	Navindgi	Basu	ba	7734633
a05	Curies	Tammy	da	7845234
a06	Daglas	Creains	ba	7545233

(ii) Data for **movie** table:

mv_no	***title***	***type***	***star***	***price***
1	Bloody vengeance	action	Jackie chan	180.00
2	The firm	thriller	Tom cruise	200.00
3	Pretty woman	romance	Richard gere	150.00
4.	Home alone	comedy	Maculae culkin	150.50
5.	The fugitive	thriller	Harrison ford	200.00
6.	Coma	suspense	Michael Douglas	100.00
7.	Dracula	horror	Gary oldman	150.00
8.	Quick change	comedy	Bill Murray	100.00
9.	Gone with the wind	drama	Clarke gable	200.00
10.	Carry on doctor	comedy	Lislie Phillips	100.00

(iii) Data for invoice table:

inv_no	***mv_no***	***cust_id***	***issue_date***	***return_date***
i01	4	a01	23-ju1-02	29-jul-02
i02	3	a02	12-aug-02	15-aug-02
i03	1	a03	15-Jun-02	29-Jun-02
i04	6	a04	10-sep-02	28-sep-02
i05	7	a06	05-aug-02	05-aug-02
i06	2	a05	18-jun-02	21-jun-02
i07	9	a05	07-jul-02	28-jul-02
i08	9	a01	11-aug-02	28-aug-02
i09	5	a03	06-jul-02	06-aug-02
i10	8	a06	03-sep-02	06-sep-02

Single Table Retrieval

1. Find out the names of all the customers.
2. Print the entire movie table.
3. Retrieve the list of first name and phone number of all the customers.
4. Print the list of all movie titles whose price is having more than Rs. 150/-
5. Print the information from invoice table of customers who have not been issued movies in the month of July.
6. Display the invoice table information for cust_id ‘a01’ and ‘a02’.
7. List the movie title in descending order of their titles along with its price.
8. Print the names and types of all the movies except horror movies.
9. List the names, area and cust_id of customer without phone numbers.

Using Special Operators:

10. Find the names of all customers having ‘a’ as the second letter in their fnames.
11. Find the last name of all customers whose name begins with ‘s’ or ‘j’.
12. Find the last names of all movie titles having 'O' as second letter.
13. Find the first and last names of all customers that belong to 'sa’ area.
14. Find out the customers who stay in an area whose second letter is ‘a’.
15. List the mv_no, title and type of movies whose starts begin with letter ‘m’.
16. Print the list of all customers who stay in the area ‘da’ or area ‘mu’ or area ‘gh’.
17. Find the movies of type ‘action’, ‘Suspense’ and ‘comedy’.
18. Find the movies whose price is greater than 150 and less than or equal to 200.