MODULE – 5(DATABASE)

**1.What do you understand By Database?**

ANS :- A database is an electronically stored, systematic collection of data. It can contain any type of data, including words, numbers, images, videos, and files. You can use software called a database management system (DBMS) to store, retrieve, and edit data.

**2.What is Normalization?**

ANS:- The process of organising information/data in a database is known as normalization.

**3. What is Difference between DBMS and RDBMS?**

ANS:- The main differences are: RDBMS stores data in the form of tables, whereas DBMS stores data in the form of files. Single users are supported by DBMS, whereas multiple users are supported by RDBMS. Client-server architecture is not supported by DBMS, although it is supported by RDBMS.

**4. What is MF Cod Rule of RDBMS Systems?**

ANS:- zero to twelve rules.

1. Rule 0: The Foundation Rule:

2. Rule 1: The Information Rule:

3. Rule 2: The Guaranteed Access Rule:

4. Rule 3: Systematic Treatment of Null Values:

5. Rule 4: Dynamic Online Catalog Based on the Relational Model:

6. Rule 5: The Comprehensive Data Sublanguage Rule:

7. Rule 6: The View Updating Rule:

8. Rule 7: High-level Insert, Update, and Delete:

9. Rule 8: Physical Data Independence:

10. Rule 9: Logical Data Independence:

11. Rule 10: Integrity Independence:

12. Rule 11: Distribution Independence:

13. Rule 12: Non-Subversion Rule:

**5. What do you understand By Data Redundancy?**

ANS:- Data redundancy occurs when the same piece of data exists in multiple places, whereas data inconsistency is when the same data exists in different formats in multiple tables.

**6.What is DDL Interpreter?**

ANS:- DDL Interpreter: It interprets the DDL (Data Definition Language) Instructions and stores the record in a data dictionary.

**7. What is DML Compiler in SQL?**

ANS:- A DML (data manipulation language) refers to a computer programming language that allows you to add (insert), delete (delete), and alter (update) data in a database.

**8. What is SQL Key Constraints writing an Example of SQL Key Constraints?**

• ANS:- NOT NULL - Ensures that a column cannot have a NULL value.

• UNIQUE - Ensures that all values in a column are different.

• PRIMARY KEY - A combination of a NOT NULL and UNIQUE . ...

• FOREIGN KEY - Prevents actions that would destroy links between tables.

**9. What is save Point? How to create a save Point write a Query?**

Ans:- A SAVEPOINT is a point in a transaction in which you can roll the transaction back to a certain point without rolling back the entire transaction. Syntax for Savepoint command: SAVEPOINT SAVEPOINT\_NAME;.

**10. What is trigger and how to create a Trigger in SQL?**

ANS:- To create the DML trigger, from the Query menu, click Execute. The DML trigger is created as an object in the database. To see the DML trigger listed in Object Explorer, right-click Triggers and select Refresh.

**TOPICS - SQL QUERIES**

**Create Table Name : Student and Exam**

** STUDENT:**

• CREATE TABLE STUDENT

(ROLL\_NO INT PRIMARY KEY AUTO\_INCREMENT,NAME VARCHAR(30), BRANCH VARCHAR(30));

• INSERT INTO student (NAME,BRANCH) VALUES ("MAHIMA","INFORMATION TECHNOLOGY"),("DIMPLE","ELECTRICAL ENGINEERING"),

("NENCY","CHEMICAL ENGINEERING"),("NIKTA","CIVIL ENGINEERING"),("HEENA","COMPUTER ENGINEERING");

• SELECT \* FROM student;

** EXAM:**

• CREATE TABLE EXAM

(ROLL\_NO INT ,S\_CODE VARCHAR(10) PRIMARY KEY,MARKS INT ,P\_CODE VARCHAR(10),FOREIGN KEY(ROLL\_NO) REFERENCES student(ROLL\_NO));

• INSERT INTO EXAM VALUES(1,"CS11",67,"CS"),(1,"CS12",78,"CS"),(3,"EC101",44,"EC"),(2,"EC102",97,"EC"),(5,"EC104",80,"EC"),(2,"EC202",62,"EC"),(3,"EC105",70,"EC");

• SELECT \* FROM EXAM LIMIT 4;

**2.Create Table Name : PERSON**

• CREATE TABLE PERSON

(FIRST\_NAME VARCHAR(20),LAST\_NAME VARCHAR(20),ADDRESS TEXT,CITY VARCHAR(30),AGE INT );

• INSERT INTO person VALUES

("RINKU","VAGHELA","123 KRISHNA SOCITY","KADI",21),

("JAIMINI","DABHI","002 RAMBAG SOCITY","DANGARVA",26),

("RIDHHIMA","SODHA","024 HOUSING BOARD","VIDAJ",31),

("MITTU","VAGHELA","98 HOUSING BOARD","MORBI",24),

("MALTI","ZALA","019 RADHE COMPLEX","AHEMDABAD",18),

("HEER","RAJ","005 SIVAM HOSPITAL","RAJKOT",29);

• SELECT FIRST\_NAME,CITY,AGE FROM person LIMIT 3;

**3-CREATE TABLE: EMPLOYEE AND INCENTIVE**

** TABLE-1**

• CREATE TABLE EMPLOYEE(EMPLOYEEE\_ID INT PRIMARY KEY AUTO\_INCREMENT,FIRST\_NAME VARCHAR(20),LAST\_NAME VARCHAR(20),SALARY BIGINT ,JOINING\_DATE DATETIME ,

DEPARTMENT VARCHAR(10));

• INSERT INTO employee(FIRST\_NAME,LAST\_NAME,SALARY,JOINING\_DATE,DEPARTMENT) VALUES("JOHN","ABRAHAM",1000000,'13-1-1',"BAMKING"), ("JOHN","ABRAHAM",1000000,'01-JAN-13 12:00',"BANKING");

• insert into employee (FIRST\_NAME,LAST\_NAME,SALARY,JOINING\_DATE,DEPARTMENT) VALUES

("MICHAEL","CLARKE",800000,'13-1-1',"INSURANCE"),("ROY","THOMAS",700000,'13-2-1',"BANKING"),

("TOM","JOSE",600000,'13-2-1',"INSURANCE"),("JERRY","PINTO",650000,'13-1-1',"INSURANCE"),

("PHILIP","MATHEW",750000,'13-1-1',"SERVICES"),("TESTNAME1","123",650000,'13-1-1',"SERVICES"),

("TESTNAME2","LNAME",600000,'13-2-1',"INSURANCE");

• SELECT EMPLOYEEE\_ID,FIRST\_NAME,LAST\_NAME,SALARY,DATE\_FORMAT(JOINING\_DATE,'%d-%b-%y %h.%i.%s %p'),DEPARTMENT FROM employee;

** TABLE-2**

• CREATE TABLE INCENTIVE (EMPLOYEE\_REF\_ID INT ,INCENTIVE\_DATE DATE,INCENTIVE\_AMOUNT INT ,FOREIGN KEY (EMPLOYEE\_REF\_ID)REFERENCES EMPLOYEE(EMPLOYEEE\_ID));

• INSERT INTO incentive VALUES(5,'13-2-1',5000),(2,'13-2-1',3000),(3,'13-2-1',4000),(5,'13-1-1',4500), (2,'13-2-1',3500);

• SELECT EMPLOYEE\_REF\_ID ,DATE\_format(INCENTIVE\_DATE,'%d-%b-%y'),INCENTIVE\_AMOUNT FROM incentive WHERE 1

**RETRIEVE BELOW DATA FROM ABOVE TABLE**

**3) Get First\_Name from employee table using Tom name “Employee Name**

SELECT FIRST\_NAME AS EMPLOYEE\_NAME FROM EMPLOYEE WHERE FIRST\_NAME="TOM";

**4) Get FIRST\_NAME, Joining Date, and Salary from employee table.**

SELECT FIRST\_NAME,DATE\_FORMAT(JOINING\_DATE,'%d-%b-%y %h.%i.%s %p'),SALARY FROM employee

**5) Get all employee details from the employee table order by First\_Name**

SELECT \* FROM employee ORDER BY FIRST\_NAME DESC;

**6)Get employee details from employee table whose first name contains ‘J’.**

SELECT \* FROM employee WHERE FIRST\_NAME LIKE '%J%';

**7) Get department wise maximum salary from employee table order by salary ascending?**

SELECT DEPARTMENT,MAX(SALARY) FROM employee GROUP BY DEPARTMENT ORDER BY SALARY ASC;

**8) salaryascending?**

**9) Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000**

SELECT FIRST\_NAME ,INCENTIVE\_AMOUNT FROM employee AS E INNER JOIN incentive AS I ON E.EMPLOYEEE\_ID =I.EMPLOYEE\_REF\_ID

WHERE I.INCENTIVE\_AMOUNT>3000;

**10) Create After Insert trigger on Employee table which insert records in viewtable**

**4- CREATE TABLE : SALESPERSON AND CUSTOMER**

** TABLE-1**

• CREATE TABLE SALESPERSON

(SNO INT PRIMARY KEY AUTO\_INCREMENT,SNAME VARCHAR(20),CITY VARCHAR(20),COMM FLOAT(4));

CHANGE AUTO\_INCREAMENT STARTING VALUE

• ALTER TABLE salesperson AUTO\_INCREMENT=1001;

• INSERT INTO salesperson (SNAME,CITY,COMM) VALUES

("PEEL","LONDON",.12),

("SERRES","SAN JOSE",.13),

("MOTIKA","LONDON",.11),

("RAFKIN","BARCELONA",.15),

("AXEIROD","NEW YORK",.1);

** TABLE-2**

• CREATE TABLE CUSTOMER(CNM INT PRIMARY KEY AUTO\_INCREMENT,CNAME VARCHAR(20),CITY VARCHAR(20), RATING INT ,SNO INT,FOREIGN KEY (SNO) REFERENCES salesperson(SNO));

• ALTER TABLE customer AUTO\_INCREMENT=201;

• INSERT INTO customer (CNAME,CITY,RATING,SNO) VALUES

("HOFFMAN","LONDON",100,1001),

("GLOVANNE","ROE",200,1003),

("LIU","SAN JOSE",300,1002),

("GRASS","BARCELONA",100,1002),

("CLEMENS","LONDON",300,1005),

("PEREIRA","ROE",100,1004);

**RETRIEVE BELOW DATA FROM ABOVE TABLE**

B) Names and cities of all salespeople in London with commission above 0.12

SELECT SNAME,CITY FROM salesperson WHERE CITY="LONDON" AND COMM>.12;

C) All salespeople either in Barcelona or in London

SELECT \* FROM salesperson WHERE CITY="BARCELONA" OR CITY="LONDON";

D) All salespeople with commission between 0.10 and 0.12. (Boundary values should be excluded).

SELECT \* FROM salesperson WHERE COMM > 0.11 AND COMM <.12;

E) All customers excluding those with rating <= 100 unless they are located in Rome

SELECT \* FROM customer WHERE NOT RATING<=100 AND NOT CITY="ROE";

**MODULE: 2**

**SE – HTML and CSS**

1. **Define the terms: Website, Webpage, Web browser, Web server, HTML,CSS**

**Ans-**

1) **Website**: A website is a collection of related web pages that are typically hosted under a single domain name and can be accessed via the internet. Websites serve various purposes, including providing information, services, and media to users.

2) **Webpage**: A webpage is a single document or page on the internet that is part of a website. Each webpage is written in HTML and can contain text, images, links, multimedia, and other content.

3) **Web Browser**: A web browser is a software application that allows users to access, view, and interact with websites. Examples include Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari.

4) **Web Server**: A web server is a system or software that stores and delivers web content, such as web pages, to users over the internet. When a user requests a webpage through a browser, the web server processes the request and sends the appropriate content.

5) **HTML (Hypertext Markup Language)**: HTML is the standard language used to create the structure and content of a webpage. It defines the elements of a page, such as headings, paragraphs, links, images, and lists.

6) **CSS (Cascading Style Sheets)**: CSS is a style sheet language used to describe the presentation and layout of a webpage. It controls the appearance of HTML elements, including fonts, colors, spacing, and positioning, allowing for a more visually appealing and responsive design.

1. Create a webpage to show “This is my first HTML page”.

Ans-

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>My First HTML Page</title>

</head>

<body>

<h1>This is my first HTML page</h1>

</body>

</html>

You can save this as an .html file (e.g., first\_page.html) and open it in a web browser to see the result.

1. **Display top 10 IT companies list in html webpage.**

**Ans-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Top 10 IT Companies</title>

</head>

<body>

<h1>Top 10 IT Companies</h1>

<ol>

<li>Apple</li>

<li>Microsoft</li>

<li>Amazon</li>

<li>Alphabet (Google)</li>

<li>IBM</li>

<li>Oracle</li>

<li>Accenture</li>

<li>Meta (Facebook)</li>

<li>Tata Consultancy Services (TCS)</li>

<li>Infosys</li>

</ol>

</body>

</html>

1. **Create a dropdown list.**

**Ans-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Dropdown List Example</title>

</head>

<body>

<h1>Select a Country</h1>

<label for="countries">Choose a country:</label>

<select id="countries" name="countries">

<option value="usa">USA</option>

<option value="canada">Canada</option>

<option value="uk">United Kingdom</option>

<option value="australia">Australia</option>

<option value="india">India</option>

</select>

</body>

</html>

1. **Create a Table Of college Management system using row span & col span.**

**Ans-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>College Management System</title>

<style>

table {

width: 100%;

border-collapse: collapse;

}

table, th, td {

border: 1px solid black;

}

th, td {

padding: 10px;

text-align: center;

}

th {

background-color: #f2f2f2;

}

</style>

</head>

<body>

<h1>College Management System</h1>

<table>

<tr>

<th colspan="3">Department Information</th>

<th rowspan="2">Contact</th>

</tr>

<tr>

<th>Department Name</th>

<th>Head of Department</th>

<th>Number of Faculty</th>

</tr>

<tr>

<td rowspan="2">Computer Science</td>

<td>Dr. John Doe</td>

<td>20</td>

<td>cs@college.edu</td>

</tr>

<tr>

<td>Prof. Jane Smith</td>

<td>18</td>

<td>jsmith@college.edu</td>

</tr>

<tr>

<td rowspan="2">Electrical Engineering</td>

<td>Dr. Alex Johnson</td>

<td>25</td>

<td>ee@college.edu</td>

</tr>

<tr>

<td>Prof. Emma Wilson</td>

<td>22</td>

<td>ewilson@college.edu</td>

</tr>

<tr>

<td colspan="4">College Admin: admin@college.edu</td>

</tr>

</table>

</body>

</html>

**Output:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Department Information** |  |  | | --- | |  | |  |  | Contact |
| |  | | --- | | **Department Name** |  |  | | --- | |  | | |  | | --- | | **Head of Department** |  |  | | --- | |  | | |  | | --- | | **Number of Faculty** |  |  | | --- | |  | |  |
| |  | | --- | | **Computer Science** |  |  | | --- | |  | | **Dr. John Doe** | |  | | --- | | **20** |  |  | | --- | |  | | |  | | --- | | **cs@college.edu** |  |  | | --- | |  | |
|  | |  | | --- | | **Prof. Jane Smith** |  |  | | --- | |  | | |  | | --- | | **18** |  |  | | --- | |  | | |  | | --- | | **jsmith@college.edu** |  |  | | --- | |  | |
| |  | | --- | | **Electrical Engineering** |  |  | | --- | |  | | |  | | --- | | **Dr. Alex Johnson** |  |  | | --- | |  | | **25** | |  | | --- | | **ee@college.edu** |  |  | | --- | |  | |
|  | |  | | --- | | **Prof. Emma Wilson** |  |  | | --- | |  | | |  | | --- | | **22** |  |  |  | | --- | --- | |  |  | | |  | | --- | | **ewilson@college.edu** |  |  | | --- | |  | |
| |  | | --- | | **College Admin:**  [**admin@college.edu**](mailto:admin@college.edu) |  |  | | --- | |  | |  |  |  |

1. **Create below table using HTML table tags.**

**Ans-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>HTML Table Example</title>

</head>

<body>

<h2>Example Table</h2>

<table border="1" cellpadding="10" cellspacing="0">

<thead>

<tr>

<th>Sr. No.</th>

<th>Column 1</th>

<th>Column 2</th>

<th>Column 3</th>

</tr>

</thead>

<tbody>

<tr>

<td>1</td>

<td>Row 1, Column 1</td>

<td>Row 1, Column 2</td>

<td>Row 1, Column 3</td>

</tr>

<tr>

<td>2</td>

<td>Row 2, Column 1</td>

<td>Row 2, Column 2</td>

<td>Row 2, Column 3</td>

</tr>

<tr>

<td>3</td>

<td>Row 3, Column 1</td>

<td>Row 3, Column 2</td>

<td>Row 3, Column 3</td>

</tr>

</tbody>

</table>

</body>

</html>

**Output:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Sr. No.** |  |  | | --- | |  | | |  | | --- | | **Column 1** |  |  | | --- | |  | | |  | | --- | | **Column 2** |  |  | | --- | |  | | | **Column 3** | | --- |  |  | | --- | |  | |
| |  | | --- | | **1** |  |  | | --- | |  | | |  | | --- | | Row 1, Column 1 |  |  | | --- | |  | | |  | | --- | | Row 1, Column 2 |  |  | | --- | |  | | |  | | --- | | Row 1, Column 3 |  |  | | --- | |  | |
| |  | | --- | | **2** |  |  | | --- | |  | | |  | | --- | | Row 2, Column 1 |  |  | | --- | |  | | |  | | --- | | Row 2, Column 2 |  |  | | --- | |  | | |  | | --- | | Row 2, Column 3 |  |  | | --- | |  | |
| |  | | --- | | **3** |  |  | | --- | |  | | |  | | --- | | Row 3, Column 1 |  |  | | --- | |  | | |  | | --- | | Row 3, Column 2 |  |  | | --- | |  | | Row 3, Column 3 |



<html>

<head>

</head>

<body>

<table border="2" border-color:"white" width="50%" align="center" cellpadding="10px" cellspacing="0px" bgcolor="green" style=color:white>

<caption><h3>European roulette</h3></caption>

<tr>

<td rowspan="5">0</td>

<td style=background-color:red>3</td>

<td style=background-color:black>6</td>

<td style=background-color:red>9</td>

<td style=background-color:red>12</td>

<td style=background-color:black>15</td>

<td style=background-color:red>18</td>

<td style=background-color:red>21</td>

<td style=background-color:black>24</td>

<td style=background-color:red>27</td>

<td style=background-color:red>30</td>

<td style=background-color:black>33</td>

<td style=background-color:red>36</td>

<td colspan="2">2to1</td>

</tr>

<tr>

<td style=background-color:black>2</td>

<td style=background-color:red>5</td>

<td style=background-color:black>8</td>

<td style=background-color:black>11</td>

<td style=background-color:red>14</td>

<td style=background-color:black>17</td>

<td style=background-color:black>20</td>

<td style=background-color:red>23</td>

<td style=background-color:black>26</td>

<td style=background-color:black>29</td>

<td style=background-color:red>32</td>

<td style=background-color:black>35</td>

<td colspan="2">2to1</td>

</tr>

<tr>

<td style=background-color:red>1</td>

<td style=background-color:black>4</td>

<td style=background-color:red>7</td>

<td style=background-color:black>10</td>

<td style=background-color:black>13</td>

<td style=background-color:red>16</td>

<td style=background-color:red>19</td>

<td style=background-color:black>22</td>

<td style=background-color:red>25</td>

<td style=background-color:black>28</td>

<td style=background-color:black>31</td>

<td style=background-color:red>34</td>

<td colspan="2">2to1</td>

</tr>

<tr>

<td colspan="4" align="center" style=background-color:green>1st12</td>

<td colspan="4" align="center" style=background-color:green>2nd12</td>

<td colspan="4" align="center" style=background-color:green>3rd12</td>

<td rowspan="2"></td>

</tr>

<tr>

<td colspan="2" align="center" style=background-color:green>1to18</td>

<td colspan="2" align="center" style=background-color:green class="merged-cell">EVEN</td>

<td colspan="2" align="center" style=background-color:red></td>

<td colspan="2" align="center" style=background-color:black></td>

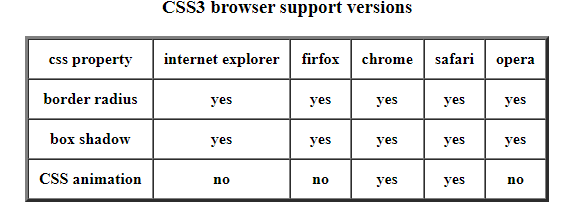
<td colspan="2" align="center" style=background-color:green>ODD</td>

<td colspan="2" align="center" style=background-color:green>19to36</td>

</tr>

</body>

</html>



<html>

<head>

</head>

<body>

<table border="3" align="center" cellpadding="10px" cellspacing="0px">

<caption><h3>CSS3 browser support versions</h3></caption>

<tr>

<th>css property </th>

<th>internet explorer</th>

<th>firfox</th>

<th>chrome</th>

<th>safari</th>

<th>opera</th>

</tr>

<tr>

<th>border radius </th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

</tr>

<tr>

<th> box shadow </th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

<th>yes</th>

</tr>

<tr>

<th> CSS animation </th>

<th>no</th>

<th>no</th>

<th>yes</th>

<th>yes</th>

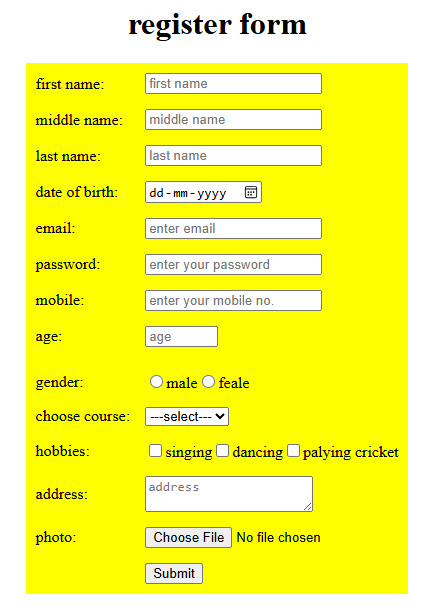
<th>no</th>

</tr>

</body>

</html>

1. **Create Registration form using HTML, CSS**

****

<html>

<head>

</head>

<body>

<center><h1>register form</h1></center>

<form name="myform" action="" method="post">

<table cellpadding="5" cellspacing="5" bgcolor="yellow" align="center">

<tr>

<td> first name: </td><td><input type="text" name="fname" size="" placeholder="first name" required maxlength="7"></td>

</tr>

<tr>

<td> middle name: </td><td><input type="text" name="mname" size="" placeholder="middle name" required maxlength="7"></td>

</tr>

<tr>

<td> last name: </td><td><input type="text" name="lname" size="" placeholder="last name" required maxlength="7"></td>

</tr>

<tr>

<td> date of birth: </td><td><input type="date" name="date" size=""></td>

</tr>

<tr>

<td> email: </td><td><input type="email" name="email" size="" placeholder="enter email"required maxlength="18"></td>

</tr>

<tr>

<td> password: </td><td><input type="text" name="password" size="" placeholder="enter your password"required maxlength="8"></td>

</tr>

<td> mobile: </td><td><input type="text" name="mobile no." size="" placeholder="enter your mobile no."required maxlength="10"></td>

</tr>

<td> age: </td><td><input type="number" name="age" size="" placeholder="age"required min="18" max="100"></td>

</tr>

<tr>

<tr>

<tr>

<td> gender: </td><td><input type="radio" name="gender" size="">male<input type="radio" name="gender" size="">feale</td>

</tr>

<tr><td>choose course:</td><td>

<select name="course">

<option name="">---select---</option>

<option name="">html</option>

<option name="">php</option>

<option name="">java</option>

<option name="">asp</option>

<tr>

<td> hobbies: </td><td><input type="checkbox" name="hobbies" size="">singing<input type="checkbox" name="hobbies" size="">dancing<input type="checkbox" name="hobbies" size="">palying cricket</td>

</tr>

<tr>

<td> address: </td><td><textarea name="address" placeholder="address"required maxlength="50"></textarea></td>

</tr>

<tr>

<td> photo: </td><td><input type="file" name="photo" size=""></td>

</tr>

<tr><td></td><td><input type="submit" name="submit" size=""></td></tr>

</table>

</form>

</select>

</body>

</html>

**8. In how many ways can a CSS be integrated as a web page?**

Ans-

1. **Inline CSS**: This method involves adding the CSS styles directly to HTML elements using the style attribute. It applies styles to individual elements.

html

Copy code

<h1 style="color: blue; font-size: 20px;">Hello, World!</h1>

1. **Internal CSS**: This method uses a <style> tag within the <head> section of the HTML document. It applies styles to the entire document, making it easier to manage than inline styles.

html

Copy code

<head>

<style>

h1 {

color: blue;

font-size: 20px;

}

</style>

</head>

1. **External CSS**: This involves linking to an external CSS file using the <link> tag in the <head> section. This is the most efficient method for styling multiple pages, as you can maintain styles in one location.

html

Copy code

<head>

<link rel="stylesheet" href="styles.css">

</head>

**Summary:**

* **Inline CSS**: Styles applied directly to individual elements.
* **Internal CSS**: Styles defined within a <style> tag in the HTML document.
* **External CSS**: Styles stored in a separate .css file linked to the HTML document.

**9.Create simple three pages using External CSS, Internal CSS, and Inline CSS.**

**Ans-**

**Page 1: Inline CSS**

**HTML (inline.html)**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Inline CSS</title>

</head>

<body>

<h1 style="color: #4682b4;">Welcome to Inline CSS Page</h1>

<p style="color: #5f9ea0;">This page uses inline CSS for styling.</p>

</body>

</html>

**Page 2: Internal CSS**

**HTML (internal.html)**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Internal CSS</title>

<style>

body {

background-color: #ffe4e1;

font-family: Arial, sans-serif;

}

h1 {

color: #8b0000;

}

p {

color: #a52a2a;

}

</style>

</head>

<body>

<h1>Welcome to Internal CSS Page</h1>

<p>This page uses internal CSS for styling.</p>

</body>

</html>

**Page 3: External CSS**

**HTML (index.html)**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>External CSS</title>

<link rel="stylesheet" href="styles.css">

</head>

<body>

<h1>Welcome to External CSS Page</h1>

<p>This page uses external CSS for styling.</p>

</body>

</html>

**CSS (styles.css)**

body {

background-color: #f0f8ff;

font-family: Arial, sans-serif;

}

h1 {

color: #2c3e50;

}

p {

color: #34495e;

}

**10.Create below page using HTML CSS**

**Ans-**

**HTML (index.html)**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Simple Web Page</title>

<link rel="stylesheet" href="styles.css">

</head>

<body>

<header>

<h1>My Simple Web Page</h1>

<nav>

<ul>

<li><a href="#about">About</a></li>

<li><a href="#services">Services</a></li>

<li><a href="#contact">Contact</a></li>

</ul>

</nav>

</header>

<main>

<section id="about">

<h2>About Us</h2>

<p>This is a simple web page created using HTML and CSS. It serves as a basic example of how to structure a webpage.</p>

</section>

<section id="services">

<h2>Our Services</h2>

<p>We offer various services to help you succeed in your business. Contact us to learn more!</p>

</section>

<section id="contact">

<h2>Contact Us</h2>

<p>You can reach us via email at <a href="mailto:info@example.com">info@example.com</a>.</p>

</section>

</main>

<footer>

<p>&copy; 2024 My Simple Web Page. All rights reserved.</p>

</footer>

</body>

</html>

**CSS (styles.css)**

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 0;

line-height: 1.6;

}

header {

background: #333;

color: #fff;

padding: 10px 0;

text-align: center;

}

nav ul {

list-style: none;

padding: 0;

}

nav ul li {

display: inline;

margin: 0 15px;

}

nav ul li a {

color: #fff;

text-decoration: none;

}

main {

padding: 20px;

max-width: 800px;

margin: auto;

}

section {

margin: 20px 0;

padding: 10px;

border: 1px solid #ddd;

}

footer {

text-align: center;

padding: 10px 0;

background: #333;

color: #fff;

position: relative;

bottom: 0;

width: 100%;

}

**<html>**

**<head>**

**<style>**

**</style>**

**</head>**

**<body>**

**<div style="color:red;background-color:#87CEFA" align="center">individual registration</div><br>**

**<table bgcolor="#7bd9f6" align=center>**

**<tr>**

**<td style= 'color:red' align=left-side>user partiqular</td>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red' >\*</span>login id </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>password </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span> conform password </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<td style= 'color:red' align=left-side>personal partiqular</td>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red' >\*</span>salutation </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>middle name</td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>resident status </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>email-id </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red' >\*</span>first name </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>last name</td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>country </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>mobile number </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<td style= 'color:red' align=left-side>personal partiqular</td>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red' >\*</span>15 digits account no </td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>fund transfer</td><input type="text" required></th>**

**</tr>**

**<tr>**

**<th style='color:#800080';><span style='color:red'>\*</span>nick name</td><input type="text" required></th>**

**<tr>**

**<td style= 'color:red' align=left-side>DECLARATION</td>**

**</tr>**

**<tr><td>i have read understood and hereby agree to the terms and conditions in respect of all products and <br>channels.<br>i understood that any changes in the terms and conditions applicable to this relationship would be made <br>available to me on request at any IOB branches.i confirm that all accounta under this login name are<br>rated singty and in case of joint account oprated by either or survivor /anyone or survivor(S)under <br>**

**his/her joint name respectively .i do hereby declar that information funished in this form is true to the <br>best of my knowledge and belief.</td></tr>**

**<tr>**

**<td><div class="d-grid gap-2 d-md-flex justify-content-md-end" align=center>**

**<button class="btn btn-primary me-md-2" type="button">submit</button>**

**<button class="btn btn-primary" type="button">reset</button></td>**

**</div>**

**</tr>**

**</table>**

**</body>**

**</html>**

**11. Create link-pseudo classes using external css, to format links on the pages.**

**Ans-**

Step 1: Add link pseudo-classes to your external CSS file (styles.css).

/\* Unvisited link \*/

a:link {

color: #0000FF; /\* Blue \*/

text-decoration: none; /\* Remove underline \*/

}

/\* Visited link \*/

a:visited {

color: #800080; /\* Purple \*/

text-decoration: none;

}

/\* Hovered link \*/

a:hover {

color: #FF0000; /\* Red \*/

text-decoration: underline; /\* Add underline when hovered \*/

}

/\* Active link \*/

a:active {

color: #008000; /\* Green \*/

text-decoration: underline;

}

**Step 2: Link your CSS file to your HTML.**

<head>

<link rel="stylesheet" type="text/css" href="styles.css">

</head>

**12. Create a dynamic pseudo class using HTML, CSS**

**Ans-**

**Example: Dynamic Button with Hover Effect**

**1. HTML Code**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Dynamic Pseudo-class Example</title>

<link rel="stylesheet" type="text/css" href="styles.css">

</head>

<body>

<a href="#" class="dynamic-button">Hover Me</a>

</body>

</html>

**2. External CSS (styles.css)**

/\* Basic Button Styles \*/

.dynamic-button {

display: inline-block;

padding: 15px 30px;

font-size: 16px;

color: white;

background-color: #007BFF;

text-decoration: none;

border-radius: 5px;

transition: background-color 0.3s ease, transform 0.3s ease;

}

/\* Hover Effect: Changes background color and scales the button \*/

.dynamic-button:hover {

background-color: #0056b3;

transform: scale(1.1); /\* Slightly enlarges the button \*/

}

/\* Active Effect: Shrinks the button when clicked \*/

.dynamic-button:active {

background-color: #003f7f;

transform: scale(0.95); /\* Shrinks slightly when clicked \*/

}

/\* Focus Effect: Adds an outline when focused (e.g., by keyboard) \*/

.dynamic-button:focus {

outline: 3px solid #ff6b6b;

}