

Full Stack Assignment

Software Engineering Assignment

MODULE:

SE – Overview of IT Industry

1. What is software? What is software engineering?
2. Explain types of software
3. What is SDLC? Explain each phase of SDLC
4. What is DFD? Create a DFD diagram on Flipkart
5. What is Flow chart? Create a flowchart to make addition of two numbers
6. What is Use case Diagram? Create a use-case on bill payment on paytm.

MODULE:

SE – Fundamentals of Programming

Topics Covered

Basic Syntax

Data Structures

Variables

Operators

Basic Logic Program

1. Display This Information using printf
 - a. Your Name
 - b. Your Birth date
 - c. Your Age
 - d. Your Address
2. Write a program to make Simple calculator (to make addition, subtraction, multiplication, division and modulo)
3. WAP to Find Area And Circumference of Circle
4. Find Area of Square formula : $a = a^2$
5. Find Area of Cube formula : $a = 6a^2$
6. Find area of Triangle Formula : $A = \frac{1}{2} \times b \times h$
7. Find area of Rectangle Formula : $A = w \times l$
8. Find circumference of Rectangle formula : $C = 4 * a$
9. Find circumference of Triangle formula : $triangle = a + b + c$
10. find the area of a rectangular prism formula : $A = 2(wl + hl + hw)$
11. Find circumference of square formula : $C = 4 * a$
12. Accept number of students from user. I need to give 5 apples to each student. How many apples are required?
13. Find character value from ascii
14. Find ascii value of given number
15. Convert school's name in abbreviated form
16. Convert country's name in abbreviate form
17. Calculate person's insurance premium based on salary

18. Calculate person's Annual salary
19. Calculate compound interest
20. Accept monthly salary from the user and deduct 10% insurance premium, 10% loan installment find out of remaining salary.
21. Accept 2 numbers from user and swap 2 numbers with using 3rd variable and without using 3rd variable

22. Calculate compound interest (Compound Interest formula:
 - a. Formula to calculate compound interest annually is given by:
Amount= $P(1 + R/100)t$
 - b. Compound Interest = Amount – P
23. WAP to calculate swap 2 numbers with using of multiplication and division.
24. Accept 5 employees name and salary and count average and total salary
25. Accept 5 expense from user and find average of expense
26. Convert temperature Fahrenheit to Celsius
27. Convert days into months
28. Convert years into days and months
29. Convert minutes into seconds and hours
30. WAP to convert years into days and days into years
31. Convert kilometers into meters
32. Accept 2 numbers and find out its sum check it size
33. C Program to Read Integer and Print First Three Powers (N^1, N^2, N^3)

Topics Covered

Control statements

Conditional Statements

Conditional Logic Programs:

1. Write a C program to accept two integers and check whether they are equal or not
2. Write a C program to read the value of an integer m and display the value of m is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0
3. WAP to check if the given year is a leap year or not.
4. WAP to make simple calculator (operation include Addition, Subtraction, Multiplication, Division, modulo) using conditional statement
5. Check Number Is Positive or Negative
6. Find the Character Is Vowel or Not
7. Accept marks from user and check pass or fail
8. WAP to accept the height of a person in centimeters and categorize the person according to their height.
9. C Program to Check Uppercase or Lowercase or Digit or Special Character

10. WAP to check whether a number is negative, positive or zero.
11. WAP to find number is even or odd using ternary operator
12. WAP to find maximum number among 3 numbers using ternary operator
13. WAP to find minimum number among 3 numbers using ternary operator
14. WAP to find the largest of three numbers.
15. Write a C program to determine eligibility for admission to a professional course based on the following criteria
 Eligibility Criteria : Marks in Maths ≥ 65 and Marks in Phy ≥ 55 and Marks in Chem ≥ 50 and Total in all three subjects ≥ 190 or Total in Maths and Physics ≥ 140 -----Input the marks obtained in Physics :65 Input the marks obtained in Chemistry :51 Input the marks obtained in Mathematics :72 Total marks of Maths, Physics and Chemistry : 188 Total marks of Maths and Physics : 137 The candidate is not eligible.
16. Write a C program to read temperature in centigrade and display a suitable message according to the temperature state below:
 Temp < 0 then Freezing weather
 Temp 0-10 then Very Cold weather
 Temp 10-20 then Cold weather
 Temp 20-30 then Normal in Temp
 Temp 30-40 then Its Hot
 Temp ≥ 40 then Its Very Hot
17. Write a C program to check whether a triangle can be formed with the given values for the angles.
18. Write a C program to calculate profit and loss on a transaction.
19. Write a program in C to calculate and print the electricity bill of a given customer. The customer ID, name, and unit consumed by the user should be captured from the keyboard to display the total amount to be paid to the customer. The charges are as follows :

Unit	Charge/unit
upto 350	@ 1.20
350 and above but less than 600	@ 1.50
600 and above but less than 800	@ 1.80
800 and above	@ 2.00

If bill exceeds Rs. 800 then a surcharge of 18% will be charged and the minimum bill should be of Rs. 256/-

20. Write a program in C to read any Month Number in integer and display the number of days for this month.

21. Write a C program to input basic salary of an employee and calculate its Gross salary according to following:
Basic Salary <= 10000 : HRA = 20%, DA = 80%
Basic Salary <= 20000 : HRA = 25%, DA = 90%
Basic Salary > 20000 : HRA = 30%, DA = 95%\
22. WAP to input the week number and print week day.
23. Accept month number and display month name
24. Accept the input month number and print number of days in that month.
25. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:
For first 50 units Rs. 0.50/unit
For next 100 units Rs. 0.75/unit
For next 100 units Rs. 1.20/unit
For unit above 250 Rs. 1.50/unit
An additional surcharge of 20% is added to the bill
26. WAP to show
i. Monday to Sunday using switch case
ii. Vowel or Consonant using switch case

Topics Covered

Looping Statements

Conditional Statements

1. WAP to print 972 to 897 using for loop
2. WAP to accept 5 numbers from user and display all numbers
3. WAP to take 10 no. Input from user find out below values
 - a. How many Even numbers are there
 - b. How many odd numbers are there
 - c. Sum of even numbers
 - d. Sum of odd numbers
4. WAP to print table up to given numbers

5. WAP to print factorial of given number
6. WAP to print Fibonacci series up to given numbers
7. WAP to print number in reverse order e.g.: number = 64728 ---> reverse = 82746
8. Write a program to find out the max from given number (E.g., No: -1562 Max number is 6)
9. Write a program make a summation of given number (E.g., 1523 Ans: -11)
10. Write a program you have to make a summation of first and last Digit. (E.g., 1234 Ans: -5)
11. Accept 5 names from user at run time.
12. Program of Armstrong Number in C Using For Loop & While Loop
13. calculate the Factorial of a Given Number using while loop
14. Accept 5 numbers from user and find those numbers factorials
15. Calculate sum of 10 numbers using of while loop
16. Calculate the Sum of Natural Numbers Using the While Loop
17. Calculate 5 numbers from user and calculate number of even and odd using of while loop
18. Write a C Program to Print the Multiplication Table of N
 - i. E.g. $5 * 1 = 5$
 - ii. $5 * 2 = 10$
 1. .
 2. .
 - iii. $5 * 10 = 50$

19. Patterns:

1	A	*	*
1 0	B C	* * *	* *
1 0 1	D E F	* * * * *	* * *
1 0 1 0	G H I J	* * * * * *	* * * *
1 0 1 0 1	K L M N O	* * * * * * * *	* * * * *
1	A	*	*
2 3	A B	* *	*
4 5 6	A B C	* *	*
7 8 9 10	A B C D	*	
11 12 13 14 15	A B C D E		

20. WAP program to print below output using for loop

01	02	03	04	05	06	07	08	09	10
11	12	13	14	15	16	17	18	19	20

.

.

21.	42	43	44	45	46	47	48	49	50
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22. Accept 3 numbers from user using while loop and check each numbers palindrome

23. C Program to Reverse a Number Using FOR Loop

Series Program:

24. $1 + 2 + 3 + 4 + 5 + \dots + n$

25. $(1*1) + (2*2) + (3*3) + (4*4) + (5*5) + \dots + (n*n)$

26. $(1) + (1+2) + (1+2+3) + (1+2+3+4) + \dots + (1+2+3+4+\dots+n)$

27. $1/2 - 2/3 + 3/4 - 4/5 + 5/6 \dots \dots \dots n$

28. 1 2 3 6 9 18 27 54...

Topics Covered

Function

Array

1. Write a program to find out the max number from given array using function
2. WAP of Addition, Subtraction, Multiplication and Division using Switch case.(Must Be Menu Driven)
3. WAP to find reverse of string using recursion
4. WAP to find factorial using recursion
5. WAP to take two Array input from user and sort them in ascending or descending order as per user's choice

6. WAP to make addition, Subtraction and multiplication of two matrix using 2-D Array
7. WAP Find out length of string without using inbuilt function
8. WAP to reverse a string and check that the string is palindrome or not
Write a program of structure employee that provides the following
 - a. information -print and display empno, empname, address andage
 - b. Write a program of structure for five employee that provides the following information -print and display empno, empname, address andage
9. WAP to show difference between Structure and Union.
10. WAP to perform Palindrome number using for loop and function
11. WAP to accept 5 numbers from user and display in reverse order using for loop and array
12. WAP to accept 5 students name and store it in array
13. WAP to accept 5 numbers from user and check entered number is even or odd using of array
14. Perform 2D matrix array
15. Store 5 numbers in array and sort it in ascending order
16. Accept 5 numbers from user and perform sum of array
17. WAP to show difference between Structure and Union.

Topics Covered

String

1. Write a program in C to find the length of a string without using library functions.
2. Write a program in C to separate individual characters from a string.
3. Write a program in C to print individual characters of a string in reverse order
4. Write a program in C to count the total number of words in a string.
5. Write a program in C to compare two strings without using string library functions.
6. Write a program in C to count the total number of alphabets, digits and special characters in a string.
7. Write a program in C to copy one string to another string.
8. Write a program in C to count the total number of vowels or consonants in a string.
9. Write a program in C to find the maximum number of characters in a string.

10. Write a program in C to extract a substring from a given string
11. Write a program in C to read a sentence and replace lowercase characters with uppercase and vice versa.
12. Write a program in C to find the number of times a given word 'is' appears in the given string.
13. Write a program in C to remove characters from a string except alphabets.
14. Write a program in C to combine two strings manually
15. Write a program in C to find the largest and smallest words in a string.

MODULE:

OOPS Concept

Topics Covered

Basic Concepts of OOP

1. WAP to print “Hello World” using C++
2. What is OOP? List OOP concepts
3. What is the difference between OOP and POP?

Topics Covered

Basic Concepts of OOP

1. WAP to create simple calculator using class
2. Define a class to represent a bank account. Include the following members:
 3. Data Member:
 - Name of the depositor
 - Account Number
 - Type of Account
 - Balance amount in the account

Member Functions

- To assign values
- To deposited an amount
- To withdraw an amount after checking balance
- To display name and balance

4. Write a C++ program to implement a class called Circle that has private member variables for radius. Include member functions to calculate the circle's area and circumference.
5. Write a C++ program to create a class called Rectangle that has private member variables for length and width. Implement member functions to calculate the rectangle's area and perimeter.
6. Write a C++ program to create a class called Person that has private member variables for name, age and country. Implement member functions to set and get the values of these variables.

Topics Covered

Constructor

Destructor

Encapsulation

Abstraction

1. Write a program to find the multiplication values and the cubic values using inline function
2. Write a program of Addition, Subtraction, Division, Multiplication using constructor.
3. Write a C++ program to create a class called Car that has private member variables for company, model, and year. Implement member functions to get and set these variables.
4. Write a C++ program to implement a class called Bank Account that has private member variables for account number and balance. Include member functions to deposit and withdraw money from the account.
5. Write a C++ program to create a class called Triangle that has private member variables for the lengths of its three sides. Implement member functions to determine if the triangle is equilateral, isosceles, or scalene.
6. Write a C++ program to implement a class called Employee that has private member variables for name, employee ID, and salary. Include member functions to calculate and set salary based on employee performance. Using of constructor
7. Write a C++ program to implement a class called Date that has private member variables for day, month, and year. Include member functions to set and get these variables, as well as to validate if the date is valid.
8. Write a C++ program to implement a class called Student that has private member variables for name, class, roll number, and marks. Include member functions to calculate the grade based on the marks and display the student's information. Accept address from each student implement using of aggregation

Topics Covered

Inheritance

Polymorphism

1. Assume a class cricketer is declared. Declare a derived class batsman from cricketer. Data member of batsman. Total runs, Average runs and best performance. Member functions input data, calculate average runs, Display data. (Single Inheritance)
2. Write a C++ Program to find Area of Rectangle using inheritance
3. Create a class person having members name and age. Derive a class student having member percentage. Derive another class teacher having member salary. Write necessary member function to initialize, read and write data. Write also Main function (Multiple Inheritance)
4. Write a C++ Program display Student Mark sheet using Multiple inheritance
5. Assume that the test results of a batch of students are stored in three different classes. Class Students are storing the roll number. Class Test stores the marks obtained in two subjects and class result contains the total marks obtained in the test. The class result can inherit the details of the marks obtained in the test and roll number of students. (Multilevel Inheritance)
6. Write a C++ Program to show access to Private Public and Protected using Inheritance
7. Write a C++ Program to illustrates the use of Constructors in multilevel inheritance
8. Write a program to Mathematic operation like Addition, Subtraction, Multiplication, Division Of two number using different parameters and Function Overloading
9. Write a Program of Two 1D Matrix Addition using Operator Overloading
10. Write a program to concatenate the two strings using Operator Overloading
11. Write a program to calculate the area of circle, rectangle and triangle using Function Overloading

 Rectangle: $\text{Area} * \text{breadth}$

 Triangle: $\frac{1}{2} * \text{Area} * \text{breadth}$

 Circle: $\pi * \text{Area} * \text{Area}$

12. Write a program to swap the two numbers using friend function without using third variable
13. Write a program to find the max number from given two numbers using friend function

- **Topics Covered**

Templates

1. Write a program of to swap the two values using template
2. Write a program of to sort the array using templates

MODULE: (Database)

- **Topics Covered**

Basics of Database

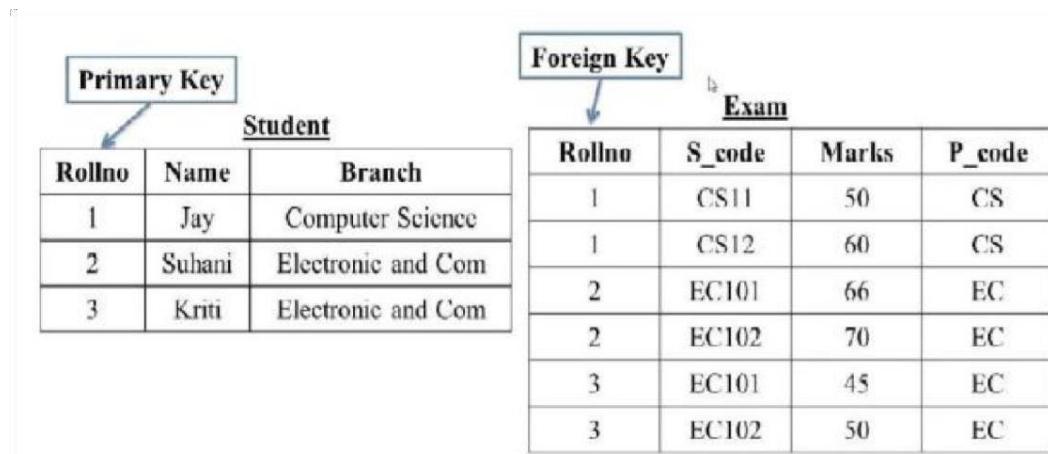
1. What do you understand By Database
2. What is Normalization?
3. What is Difference between DBMS and RDBMS?
4. What is MF Cod Rule of RDBMS Systems?
5. What do you understand By Data Redundancy?
6. What is DDL Interpreter?

7. What is DML Compiler in SQL?
8. What is SQL Key Constraints writing an Example of SQL Key Constraints
9. What is save Point? How to create a save Point write a Query?
- 10.What is trigger and how to create a Trigger in SQL?

Topics Covered

SQL Queries

1. Create Table Name : Student and Exam



2. Create table given below: Employee and IncentiveTable

Employee_id	First_name	Last_name	Salary	Joining_date	Department
1	John	Abraham	1000000	01-JAN-13 12.00.00 AM	Banking
2	Michael	Clarke	800000	01-JAN-13 12.00.00 AM	Insurance
3	Roy	Thomas	700000	01-FEB-13 12.00.00 AM	Banking
4	Tom	Jose	600000	01-FEB-13 12.00.00 AM	Insurance
5	Jerry	Pinto	650000	01-FEB-13 12.00.00 AM	Insurance
6	Philip	Mathew	750000	01-JAN-13 12.00.00 AM	Services
7	TestName1	123	650000	01-JAN-13 12.00.00 AM	Services
8	TestName2	Lname%	600000	01-FEB-13 12.00.00 AM	Insurance

Name: Employee

Table Name: Incentive

Employee_ref_id	Incentive_date	Incentive_amount
1	01-FEB-13	5000
2	01-FEB-13	3000
3	01-FEB-13	4000
1	01-JAN-13	4500
2	01-JAN-13	3500

3. Get First_Name from employee table using Tom name “Employee Name”.
 4. Get FIRST_NAME, Joining Date, and Salary from employee table.
 5. Get all employee details from the employee table order by First_Name

Ascending and Salary descending?

6. Get employee details from employee table whose first name contains ‘J’.
7. Get department wise maximum salary from employee table order by
8. salaryascending?
9. Select first_name, incentive amount from employee and incentives table forthose employees who have incentives and incentive amount greater than 3000
10. Create After Insert trigger on Employee table which insert records in viewtable
11. Create table given below: Salesperson and Customer

TABLE-1

TABLE NAME- SALESPERSON

(PK)SNo	SNAME	CITY	COMM
1001	Peel	London	.12
1002	Serres	San Jose	.13
1004	Motika	London	.11
1007	Rafkin	Barcelona	.15
1003	Axelrod	New York	.1

TABLE-2

TABLE NAME- CUSTOMER

(PK)CNM.	CNAME	CITY	RATING	(FK)SNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206	Clemens	London	300	1007
207	Pereira	Roe	100	1004

12. Retrieve the below data from above table
13. All Customer name whose rating is more than 100.
14. Names and cities of all salespeople in London with commission above 0.12
15. All salespeople either in Barcelona or in London
16. All salespeople with commission between 0.10 and 0.12. (Boundary valuesshould be excluded).
17. All customers excluding those with rating <= 100 unless they are locatedinRome
18. Write a SQL statement that displays all the information about all salespeople

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

19. From the following table, write a SQL query to find orders that are delivered by a salesperson with ID. 5001. Return ord_no, ord_date, purch_amt.

Sample table: orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
70008	5760	2012-09-10	3002	5001
70010	1983.43	2012-10-10	3004	5006
70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

20. From the following table, write a SQL query to select a range of products whose price is in the range Rs.200 to Rs.600. Begin and end values are included. Return pro_id, pro_name, pro_price, and pro_com.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

21. From the following table, write a SQL query to calculate the average price for a manufacturer code of 16. Return avg.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

22. From the following table, write a SQL query to display the pro_name as 'Item Name' and pro_priceas 'Price in Rs.'

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

23. From the following table, write a SQL query to find the items whose prices are higher than or equal to \$250. Order the result by product price in descending, then product name in ascending. Return pro_name and pro_price.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

24. From the following table, write a SQL query to calculate average price of the items for each company. Return average price and companycode.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Java Assignments

Module – Java- Core Java

→ Basic :

- Write a Java program to Take three numbers from the user and print the greatest number.
- Write a Java program that takes the user to provide a single character from the alphabet. Print Vowel or Consonant, depending on the user input. If the user input is not a letter (between a and z or A and Z), or is a string of length > 1, print an error message.
- Write a Java program that takes a year from user and print whether that year is a leap year or not. B19. Write a program in Java to display the first 10 natural numbers using while loop.
- Write a program in Java to input 5 numbers from keyboard and find their sum and average using for loop.
- Write a program in Java to display the pattern like right angle triangle with a number.

1

12

123

1234

12345

- Write a program in Java to make such a pattern like right angle triangle with number increased by 1 The pattern like:

1

2 3

4 5 6

7 8 9 10

Write a Java program that reads a positive integer and count the number of digits the number.

Input an integer number less than ten billion: 125463

Number of digits in the number: 6

- Write a Java program to print numbers between 1 to 100 which are divisible by 3, 5 and by both.

Array:

- Write a java program to find out the max number from given array using function
- Write a java program to find out the 2nd max number from given array using function.
- Write A Java Program to take two Array input from user and sort them in ascending or descending order as per user's choice
- Write a java program to make addition, Subtraction and multiplication of two matrix using 2-D Array
- Write a java program Find out length of string without using inbuilt function
- Write a java program to reverse a string and check that the string is palindrome or not.

OOPS :

- Create a class to print the area of a square and a rectangle. The class has two methods with the same name but different number of parameters. The method for printing area of a rectangle has two parameters which are length and breadth respectively while the other method for printing area of square has one parameter which is side of square.
- Create a class with a method that prints "This is a parent class" and its subclass with another method that prints "This is child class". Now, create an object for each of the class and call 1 - method of parent class by object of parent class 2 - method of child class by object of child class 3 - method of parent class by object of child class
- Create a class named 'Member' having the following members:
 1. Data members
 2. Name
 3. Age
 4. Phone number
 5. Address
 6. Salary

It also has a method named 'printSalary' which prints the salary of the members.

- Create a class named 'Rectangle' with two data members 'length' and 'breadth' and two methods to print the area and perimeter of the rectangle respectively. Its constructor having parameters for length and breadth is used to initialize the length and breadth of the rectangle. Let class 'Square' inherit the 'Rectangle' class with its constructor having a parameter for its side (suppose s) calling the constructor of its parent class as 'super (s, s)'. Print the area and perimeter of a rectangle and a square.
- Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' without any parameter in its constructor.
- Print the sum, difference and product of two complex numbers by creating a class named 'Complex' with separate methods for each operation whose real and imaginary parts are entered by user.
- Create an abstract class 'Parent' with a method 'message'. It has two subclasses each having a method with the same name 'message' that prints "This is first subclass" and "This is second subclass" respectively. Call the methods 'message' by creating an object for each subclass.
- Create an abstract class 'Bank' with an abstract method 'getBalance'. \$100, \$150 and \$200 are deposited in banks A, B and C respectively. 'BankA', 'BankB' and 'BankC' are subclasses of class 'Bank', each having a method named 'getBalance'. Call this method by creating an object of each of the three classes.
- We have to calculate the percentage of marks obtained in three subjects (each out of 100) by student A and in four subjects (each out of 100) by student B. Create an abstract class 'Marks' with an abstract method 'getPercentage'. It is inherited by two other classes 'A' and 'B' each having a method with the same name which returns the percentage of the students. The constructor of student A takes the marks in three subjects as its parameters and the marks in four subjects as its parameters for student B. Create an object for each of the two classes and print the percentage of marks for both the students.
- Write a program to print the factorial of a number by defining a method named 'Factorial'. Factorial of any number n is represented by $n!$ And is equal to $1*2*3*...*(n-1)*n$. E.g. -

$$4! = 1*2*3*4 = 24$$

$$3! = 3*2*1 = 6 \quad 2! = 2*1 = 2 \quad \text{Also, } 1! = 1 \quad 0! = 0$$

- We have to calculate the area of a rectangle, a square and a circle. Create an abstract class 'Shape' with three abstract methods namely 'RectangleArea' taking two parameters, 'SquareArea' and 'CircleArea' taking one parameter each. The parameters of 'RectangleArea' are its length and breadth, that of 'SquareArea' is its side and that of 'CircleArea' is its radius. Now create another class 'Area' containing all the three methods 'RectangleArea', 'SquareArea' and 'CircleArea' for printing the area of rectangle, square and circle respectively. Create an object of class 'Area' and call all the three methods.

Write a program which will ask the user to enter his/her marks (out of 100). Define a method that will display grades according to the marks entered as below:

Marks Grade :

1-100	A
1-90	B
1-80	B
1-70	C
1-60	D
41-50	DD
40	Fail

- Create a class named 'Shape' with a method to print "This is this is shape". Then create two other classes named 'Rectangle', 'Circle' inheriting the Shape class, both having a method to print "This is rectangular shape" and "This is circular shape" respectively. Create a subclass 'Square' of 'Rectangle' having a method to print "Square is a rectangle". Now call the method of 'Shape' and 'Rectangle' class by the object of 'Square' class.

String:

- Write a Java program to count the letters, spaces, numbers and other characters of an input string.
- Write a Java program to print the ASCII value of a given character.
- Write a Java program that accepts an integer (n) and computes the value of $n+nn+nnn$. Input number: 5
 $5 + 55 + 555$
- Write a Java program to display the system time.
- W.A.J.P to get the character at the given index within the String. Original String = Tops Technologies! The character at position 0 is T, The character at position 10 is o
- W.A.J.P to concatenate a given string to the end of another string.
- W.A.J.P to compare a given string to the specified character sequence. Comparing topsint.com and topsint.com: true Comparing Topsint.com and topsint.com: false
- W.A.J.P to check whether a given string ends with the contents of another string. "Java Exercises" ends with "se"? False "Java Exercise" ends with "se"? True
- W.A.J.P to check whether a given string starts with the contents of another string. Red is favorite color. Starts with Red? True Orange is also my favorite color. Starts with Red? False I3.
- W.A.J.P to find all interleaving of given strings.

The given strings are: WX YZ

The interleaving strings are: YWZX WYZX YWXZ WXYZ YZWX WYXZ

- W.A.J.P to find the second most frequent character in a given string. The given string is: successes The second most frequent char in the string is: c
- Create a class named 'Print Number' to print various numbers of different data types by creating different methods with the same name 'printn' having a parameter for each data type.
 - Create a class to print an integer and a character with two methods having the same name but different sequence of the integer and the character parameters. For

example, if the parameters of the first method are of the form (int n, char c), then that of the second method will be of the form (char c, int n).

Exception :

- W.A.J. P to demonstrate try catch block,
- Take two numbers from the user and perform the division operation and handle Arithmetic Exception. O/P- Enter two numbers: 10 0

Exception in thread main java.lang.ArithmaticException:/ by zero

- W.A.J. P to demonstrate multiple catch blocks, (one is to handle divide by zero exception and another one is to handle

ArrayIndexOutOfBoundsException) int a [] =new int [5]; a [5]=30/0;

- W.A.J. P to implement the above program (pro.no-B27) using nesting of try-catch block. try {

```
try
{ //code }
catch (Exception e)
{ //code }
catch (Exception e)
{ //code }
```

- W.A.J. P to demonstrate try catch block, take two numbers from the user by Command line argument and perform the division operation and handle Arithmetic

O/P-

Exception in thread main java. Lang. Arithmatic Exception:/ by zero

- W.A.J.P to create the validate method that takes integer value as a parameter. If the age is less than 18, then throw an Arithmetic Exception otherwise print a message welcome to vote.

O/P- Enter your age: 16

Exception in thread main java. Lang. Arithmatic Exception: not valid

- W.A.J.P to create a custom exception if Customer withdraw amount which is greater than account balance then program will show custom exception otherwise amount

will deduct from account balance. Account balance is: 2000 Enter withdraw amount: 2500

Sorry, insufficient balance, you need more 500 Rs. To perform this transaction.

- W.A.J.P to create a class Student with attributes roll no, name, age and course. Initialize values through parameterized constructor. If age of student is not in between 15 and 21 then generate user defined exception "AgeNotWithinRangeException". If name contains numbers or special symbols raise exception "NameNotValidException". Define the two exception classes.

MultiThreading :

- W.A.J. P to create one thread by implementing Runnable interface in Class.
- W.A.J. P to create one thread by extending Thread class in another Class.
- W.A.J.P to create 2 threads and execute that threads by providing sleep time as 2000ms and check the execution.
- W.A.J.P to start the same Thread twice by calling start () method twice. Test ThreadTwice1 t1=new TestThreadTwice1(); t1.start (); t1.start ();
- W.A.J.P to create 2 threads and make one thread as Daemon Thread by using set Daemon () method of Thread class and check whether the thread is set daemon or not by using is Daemon () method.

```
TestDaemonThread2 t1=new TestDaemonThread2();
```

```
TestDaemonThread2 t2=new TestDaemonThread2(); t1.start();
```

```
t1.setDaemon(true); //will throw exception here t2.start();
```

Collection :

Write a Java program to create a new array list, add some colors (string) and print out the collection.

- Write a Java program to iterate through all elements in an array list.
- Write a Java program to insert an element into the array list at the first position.
- Write a Java program to retrieve an element (at a spec. index) from a given array list.
- Write a Java program to update specific array element by given element.
- Write a Java program to remove the third element from an array list.
- Write a Java program to search an element in an array list.
- Write a Java program to sort a given array list.
- Write a Java program to copy one array list into another.
- Write a Java program to shuffle elements in an array list.
- Write a Java program to append the specified element to the end of a hash set.

- Write a Java program to iterate through all elements in a hash list.
- Write a Java program to get the number of elements in a hash set.
- Write a Java program to associate the specified value with the specified key in a Hash Map.
- Write a Java program to count the number of key-value (size) mappings in a map.
- Write a Java program to reverse elements in an array list.
- Write a Java program to extract a portion of an array list.
- Write a Java program to compare two array lists.
- Write a Java program of swap two elements in an array list.
- Write a Java program to join two array lists.
- Write a Java program to convert a hash set to an array.
- Write a Java program to convert a hash set to a List/ArrayList.
- Write a Java program to check whether a map contains key-value mappings (empty) or not.
- Write a Java program to increase the size of an array list.
- Write a Java program to replace the second element of an ArrayList with the specified element.
- Write a Java program to print all the elements of an ArrayList using the position of the elements.
- Write a Java program to compare two sets and retain elements which are same on both sets.
- Write a Java program to get a collection view of the values contained in this map.

Module – Java- RDBMS & Database Programming With JDBC

Field	Type	Null	Key	Default
Empno	int(4)	NO	PRI	0
Ename	varchar(10)	YES		(NULL)
Job	varchar(9)	YES		(NULL)
Mgr	int(4)	YES		(NULL)
Hiredate	date	YES		(NULL)
Sal	decimal(7,2)	YES		(NULL)
Comm	decimal(7,2)	YES		(NULL)
Deptno	int(2)	YES	MUL	(NULL)

DEPT TABLE:

Field	Type	Null	Key	Default
Deptno	int(2)	NO	PRI	0
Dname	varchar(14)	YES		(NULL)
Loc	varchar(13)	YES		(NULL)

STUDENT TABLE:

Field	Type	Null	Key	Default
Rno	int(2)	NO	PRI	0
Sname	varchar(14)	YES		(NULL)
City	varchar(20)	YES		(NULL)
State	Varchar(20)	YES		(NULL)

EMP LOG TABLE:

Field	Type	Null	Key	Default
Emp_id	int(5)	NO		(NULL)



Log_date	Date	YES		(NULL)
New_salary	Int(10)	YES		(NULL)
Action	Varchar(20)	YES		(NULL)

DEPT TABLE DATA:

Deptno	dname	loc
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

EMP TABLE DATA:

Empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800.00	(NULL)	20
7499	ALLEN	SALESMA N	7698	1981-02-20	1600.00	300.00	30
7521	WARD	SALESMA N	7698	1981-02-22	1250.00	500.00	30
7566	JONES	MANAGE R	7839	1981-04-02	2975.00	(NULL)	20
7654	MARTIN	SALESMA N	7698	1981-09-28	1250.00	1400.00	30
7698	BLAKE	MANAGE R	7839	1981-05-01	2850.00	(NULL)	30
7782	CLARK	MANAGE R	7839	1981-06-09	2450.00	(NULL)	10
7788	SCOTT	ANALYST	7566	1987-06-11	3000.00	(NULL)	20
7839	KING	PRESIDEN T	(NULL)	1981-11-17	5000.00	(NULL)	10
7844	TURNER	SALESMA N	7698	1981-08-09	1500.00	0.00	30
7876	ADAMS	CLERK	7788	1987-07-13	1100.00	(NULL)	20

7900	JAMES	CLERK	7698	1981-03-12	950.00	(NULL)	30
7902	FORD	ANALYST	7566	1981-03-12	3000.00	(NULL)	20
7934	MILLER	CLERK	7782	1982-01-23	1300.00	(NULL)	10

1. Select unique job from EMP table.
2. List the details of the emps in asc order of the Dptnos and desc of Jobs?
3. Display all the unique job groups in the descending order?
4. List the emps who joined before 1981.
5. List the Empno, Ename, Sal, Daily sal of all emps in the asc order of Annsal.
6. List the Empno, Ename, Sal, Exp of all emps working for Mgr 7369.
7. Display all the details of the emps who's Comm. Is more than their Sal?
8. List the emps who are either 'CLERK' or 'ANALYST' in the Desc order.
9. List the emps Who Annual sal ranging from 22000 and 45000.
10. List the Enames those are starting with 'S' and with five characters.
11. List the emps whose Empno not starting with digit78.
12. List all the Clerks of Deptno 20.
13. List the Emps who are senior to their own MGRS.
14. List the Emps of Deptno 20 who's Jobs are same as Deptno10.
15. List the Emps who's Sal is same as FORD or SMITH in desc order of Sal.
16. List the emps whose jobs same as SMITH or ALLEN.
17. Any jobs of deptno 10 those that are not found in deptno 20.
18. Find the highest sal of EMP table.
19. Find details of highest paid employee.
20. Find the total sal given to the MGR.
21. List the emps whose names contains 'A'.
22. Find all the emps who earn the minimum Salary for each job wise in ascending order.
23. List the emps whose sal greater than Blake's sal.
24. Create view v1 to select ename, job, dname, loc whose deptno are same.
25. Create a procedure with dno as input parameter to fetch ename and dname.
26. Add column Pin with bigint data type in table student.

27. Modify the student table to change the sname length from 14 to 40. Create trigger to insert data in emp_log table whenever any update of sal in EMP table. You can set action as 'New Salary'.

JDBC with Swing :

1. Write swing example with database connectivity to achieve the following.



Module – Java - Web Technologies in Java)

- Write a Java program to fetch data from web.xml to Servlet using ServletConfig.
- Write a Java program to fetch data from web.xml to Servlet using ServletContext.
- Write a Java program to submit student information (fname, lname, email, mobile, gender, password) using jsp form to servlet. Fetch data at servlet and print all the data in console.
- Write above Java program and print fetched data on another jsp using expression language.
- Write a Java program to fetch all the data from database table and print on jsp page using JSTL SQL tag library.
- Write a Java program to validate jsp form server side.

First Name: Only Alphabets Last Name: Only Alphabets Mobile: Only 10 Numbers

Email: Standard Email Id

Password: Minimum One 1 Upper, Minimum 1 Lower, Minimum 1 Digit, Minimum 1 Special Character from @, #, \$, %, _, & I2. Write CRUD operation using jsp only.

- Write a jsp/servlet CRUD operation for following.

Student:

- Int id;(primary key, Auto Increment)
- String fname, lname, email, mobile, gender, password;
- Need to use bootstrap responsive template for the same.
- Use client side validation to for all data input.
- Use regular expression for email for standard email input.
- Use regular expression for password like(Test@123)
- Use server side validation (Filter) same as client side validation.
- All the inserted data should be show in show.jsp with edit and delete functionality.
- Store all the deleted record in table named deleted data.
- Write a Java dynamic application “Message Passing System “using MVC and JDBC.

User:

Int uid ;(primary key, auto increment)

String fname, lname, email, mobile; Message:
int uid; String from, to, msg;

- Create one registration form to register user.
 - i. Do client and server side validation. Use AJAX to register with unique email id.
 - ii. After successful registration confirmation email should be sent to user's email id with one OTP.
 - iii. Verify OTP and then and then allowed to login to the user. o
After successful login user can edit their profile.
 - iv. Also one user can send some msg to another user using their email id.
 - v. When another user logged in they are able to see msg sent by a particular user and also can reply.
 - vi. Logout button is there to invalidate session.
 - vii. Also take care when user logged out and press back button on browser then it should be in logged out mode.
- W.A.J.P using above configuration with annotation and also show login jsp after data insert or registration.
- Write above Java program for after successful registration student can login and if login credentials are correct then show student's home page with his/her detail.

Module – Java- Software Design and pattern and Project

- Write a program to create and read the cookie with any user define name enter into text box and go to servlet1 and again any support to button to go another servlet

Module – Java - Hibernate Framework

- Write a program to establish One to One Relationship between given 2 classes and perform a CRUD operation.

Student:

```
Int studentId; String studentName; Address; Address: Int addressId;
String street, city, state, zip code;
```

- Write a program to establish one to many and Many to One relationship between given 2 classes and perform a CRUD operation.

Cart: int cartId; double total;

String name; Set<Item> items;

```
Items:Int id;String itemId;Double
itemTotal; Int quantity; Cart cart;
```

- Write a program to establish many to many relationships between given 2 classes and perform a CRUD operation.

Reader:

```
Int readerId;
String email,      firstName, lastName;
Set<Subscription> subscriptions; Subscription: Int subscriptionId;
String subscriptionName; Set<Reader> readers;
```

Module – Java - Spring

- Write a program to demonstrate the setter based dependency injection.
- Write a program to demonstrate the constructor based dependency injection.
- Write a program to demonstrate the object based dependency injection and also implement inner bean concept in your spring beans configuration file.
- Write a program to collect 5 student information using spring collection(List) in spring bean configuration file.

Student:

```
Int id; String fname, lname, email, mobile.
```

- Write a Spring ORM application to demonstrate following things.
- 2. Need to use bootstrap template.
- 3. There will be 2 modules. User and Admin.
- 4. User (id, firstname, lastname, email, mobile, password, gender, profile_pic) have to register to the site. (registration.jsp)
- 5. Then user have to login(login.jsp) and can able to edit profile like email, mobile or profile_pic.
- 6. Admin can login to the site and able see all the user registered with system and also able to delete profile of a user.
- Write a Spring MVC+ORM application to demonstrate the following

Spring MVC Form
Add User

All Users

#ID	Name	Email	framework	Action
100	mkyong	mkyong@gmail.com	Spring MVC , GWT	Query Update Delete
101	alex	alex@yahoo.com	Spring MVC , PLAY	Query Update Delete
102	joel	joel@gmail.com	Spring MVC , JSF 2	Query Update Delete

1. Add user with validation.
2. On clicking Query display single user data.
3. Update is for changes in user data.
4. Delete data.
5. Use bootstrap for UI part.

Module – Java - Spring Boot

1. What is Spring Boot and what are its Benefits?
2. Why Spring Boot is preferred over any other framework?
3. What are the key dependencies of Spring Boot?
4. What are the advantages of Spring Boot?
5. What are the features of Spring Boot?
6. How do you create a Spring Boot application using Maven?
7. What are the Spring Boot Annotations?
8. What are the Spring Boot properties?
9. What does REST stand for?
10. What is a resource?
11. What is the difference between @Controller and @RestController?
12. create springboot web app for product management :
 - 1 : create form to add product category
 - 2 : create from to add product with available category
 - 3 : view all product with category
 - 4 : view all product with category by pagination

Module – Java - Spring Boot with WebServices

1. What is WebServices and what are its Benefits?
2. How Many type of Webservices and write its details.
3. Explain key terminology of webservices
4. Explain architecture of webservices
5. What is restful webservices?
6. Difference between SOAP vs Restful.

7 : create restful service for given requirement :

- 1 : POST : add userdata with validation
- 2 : GET : view all userdata
- 3 : PUT : update userdata
- 4 : DELETE : delete userdata

Module - Microservices with Spring Boot andCloud

- 1 How to configure microservices in Spring Boot?
- 2 Is Spring Boot suitable for microservices?
- 3 How do microservices work in Spring Boot?
- 4 How to communicate two microservices?
- 5 What is a load balancer in microservices?
- 6 What is Spring Boot microservices architecture?
- 7 Can 2 microservices have same database?
- 8 What is Eureka in microservices?
- 9 Is REST API a microservice?
- 10 Is every API a microservice?

11.Create a simple microservices-based system using Spring Boot that returns "Hello World" when accessed.

Requirements:

1. Create two separate Spring Boot projects:
 - hello-service (returns "Hello")
 - world-service (returns "World")
2. Use RestTemplate to communicate between services
3. Create a third project, api-gateway, that routes requests to the appropriate service
4. Use Eureka for service discovery
5. Run the applications and test the endpoint (/hello) using a tool like curl or Postman

12 Create a simple microservices-based system using Spring Boot that performs CRUD operations on a User entity.

Requirements:

1. Create two separate Spring Boot projects:
 - user-service (handles CRUD operations for Users)
 - user-client (consumes the user-service and exposes a RESTful API)
2. Use RestTemplate to communicate between services
3. Implement CRUD operations in the user-service using Spring Data JPA
4. Expose the CRUD operations as RESTful endpoints in the user-client
5. Run the applications and test the endpoints using a tool like curl or Postman



13. Build a simple CRUD API:

- Create a Spring Boot microservice that exposes a RESTful API for CRUD operations on a single entity (e.g., User, Product, etc.).
- Implement service layers, repositories, and entity models.

2. Design a microservice architecture:

- Divide a larger application into smaller, independent microservices (e.g., authentication, inventory management, payment processing).
- Define API contracts and communication patterns between services.

3. Implement service discovery and registration:

- Use Netflix Eureka to register and discover microservices.

Front end Development

Module – WD - HTML

- 1) How to purchase domain ?

GoDaddy 

Contact Us 24/7 • Help • Blog • Sign In • 

Domains Websites WordPress Hosting Web Security Online Marketing Email & Office Phone Numbers Promos 

Auctions Domain Auction List A Domain Tools Pricing

 **Auctions** Enter keywords to begin search: **Search** Advanced Search

Domain Name Aftermarket

The perfect domain deal could be right around the corner. Download the Investor App and add domains to your watchlist to negotiate offers on the go.

[Join Now](#) Already an Auctions member? [Log In](#)

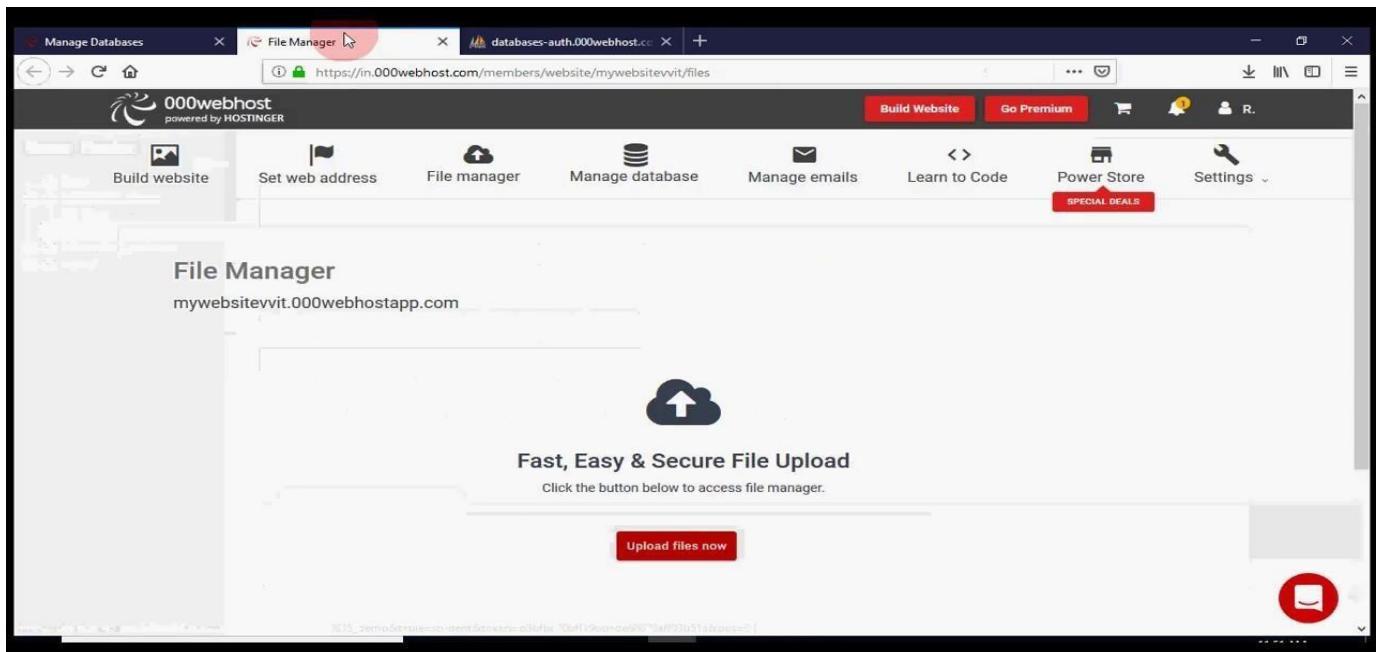
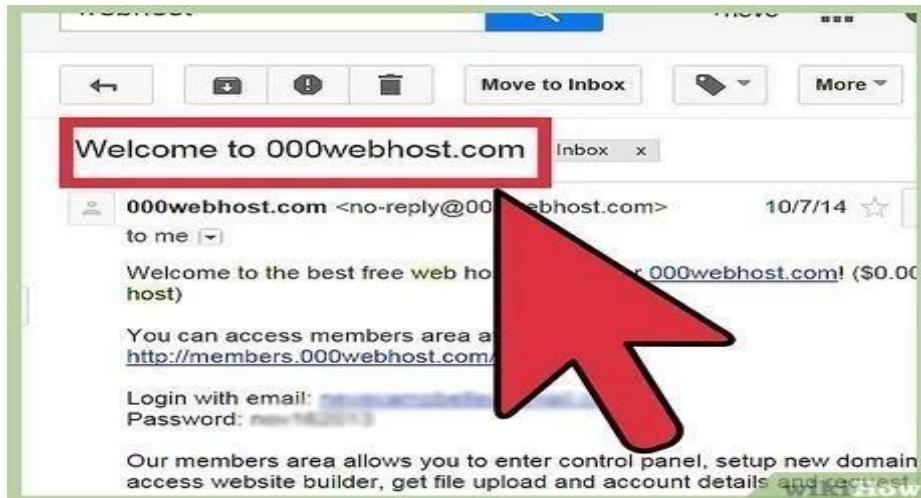
Popular Searches Search Results to Return

Most Active	25
...	...

Featured Domains [View all Featured Domains](#)

Name	Bids/Offers	Traffic	Estimated Value	Price	Enter Bid/Offer	Time Left
hawaii4newbies.com	0	-	-	Make Offer	USD\$ Offer \$400 or more	260 3H
hdreceiver.com	0	-	-	\$24,999 *	USD\$ Offer \$199 or more or Buy Now for \$24,999 *	320 2H
chronocurrency.com	0	-	-	Make Offer	USD\$ Offer \$10,603 or more	840 10H
droneconvoy.com	0	-	-	\$89 *	USD\$ Bid \$89 or more	30 0H
dwdc.com	0	-	-	\$3,500 *	USD\$ Offer \$2,300 or more or Buy Now for \$3,500 *	280 10H
happans.com	0	-	-	Make Offer	USD\$ Offer \$200 or more	880 20H
m9t.com	0	-	-	\$1,762 *	USD\$ Offer \$176 or more or Buy Now for \$1,762 *	880 10H
thelittledogstore.com	0	1	-	\$39,000 *	USD\$ Offer \$39,000 or more or Buy Now for \$39,000 *	820 10H

2) Upload one page on server using Free server hosting [000webhost.com]



3) of student management system

4) Upload your code in Github using command.



- Create below example using HTML .

The image shows a composite view of a website's header and a contact form, which are overlaid on a map of Ahmedabad, India. The top portion of the image displays a screenshot of a website's header. The header includes a navigation bar with links for "Home", "about", "contact", "help", and "store". To the right of the navigation bar is a red button labeled "BOOK PLACE". Below the header is a photograph of a building facade with a wooden double door and a metal rolling shutter door. The bottom portion of the image shows a "Contact Us" page. The page features a large background image of two people working at a desk. Overlaid on this image are several input fields: "first-name" (placeholder "Enter your name"), "last-name" (placeholder "Enter your name"), "Email -id" (placeholder "enter your emil id"), "Phone-no" (placeholder "enter your phone no."), and a "city" dropdown menu set to "Ahmedabad". There is also a "Gender" section with radio buttons for "MALE", "FEMALE", and "OTHER". To the left of the contact form is a Google Map of Ahmedabad. The map shows the location of TOPS Technologies, which is marked with a red pin. Other nearby landmarks like "Nebula Towers", "Kamala Cafe", and "Concept Hyundai SG Highway Showroom" are also visible. The map includes a "Directions" button and a "View larger map" link. To the right of the contact form is a video player window. The video thumbnail shows three people in an office setting, one pointing at a laptop screen. The text "Get Job ready" is overlaid on the video thumbnail. Below the video thumbnail is a "Watch on YouTube" button. The overall layout suggests a responsive web design where the map and video are integrated into the page's main content area.

- Create employee registration webpage using HTML form objects



Employee Registration Form

Mr. Mrs. Ms.

First Name

Last Name

Mail Address1

Mail Address2

City

State

 ▾

Zip

Upload Photo

 No file selected.

E-Mail

Mobile

Languages known

Gujarati

Hindi

English

Marathi

Optional

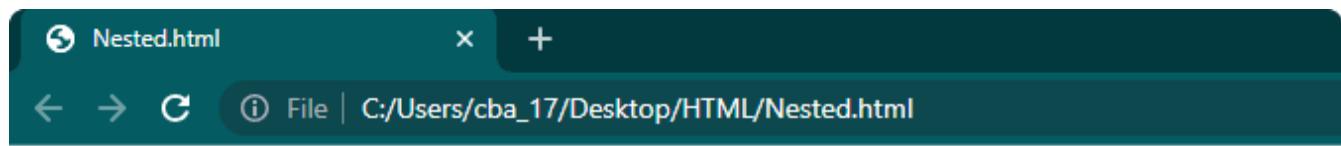
Additional Information

- Create webpage using list tags of HTML

Learning Web Development

- I. Background Skills
 - A. Unix Commands
 - B. Vim Text Editor
- II. HTML
 - A. Minimal Page
 - B. Headings
 - C. Tags
 - D. Lists
 - i. Unordered
 - ii. Ordered
 - iii. Definition
 - iv. Nested
 - E. Links
 - i. Absolute
 - ii. Relative
 - F. Images
- III. CSS
 - A. Anatomy
 - B. Basic Selectors
 - i. Element
 - ii. Class
 - iii. ID
 - iv. Group
 - C. The DOM
 - D. Advanced Selectors
 - E. Box Model
- IV. Programming
 - A. Python
 - B. JavaScript
- V. Database
 - A. Flat File
 - B. Relational

- create this using nested table



Device	Brand	Specifications	
		Model	Storage
Smartphone	Apple	iPhone 12 Pro	256GB
		iPhone SE	128GB
Laptop	HP	15.6" Display	
Tablet	Samsung	10.5" Display	

- create layout using html table

Invoice #9876543210		15 September 2020	
Pay to: Acme Billing Co. 123 Main St. Cityville, NA 12345		Customer: John Smith 321 Willow Way Southeast Northwestershire, MA 54321	
Name / Description	Qty.	@	Cost
Paperclips	2000	0.02	20.00
Staples (box)	200	2.00	200.00
Subtotal			220.00
Tax	9%		19.80
Grand Total			239.80

- creating form using table

Registration

Personal Details

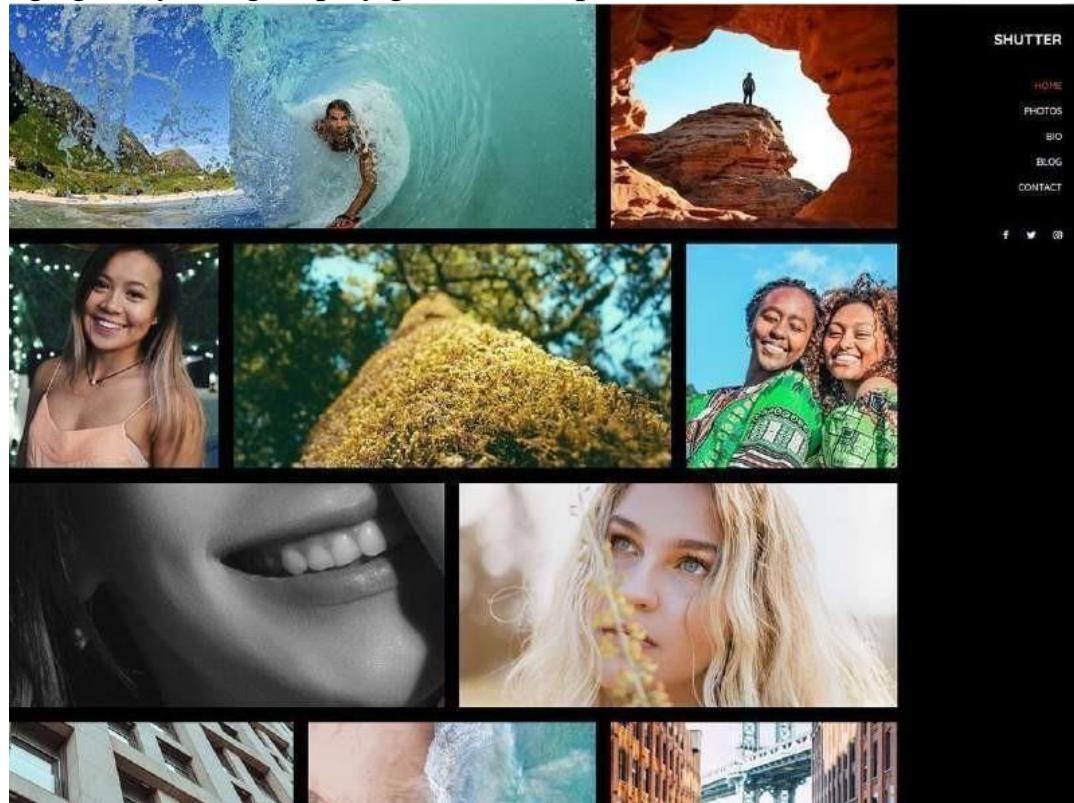
Full Name <input type="text" value="Enter your name"/>	Father Name <input type="text" value="Enter father name"/>	Mother Name <input type="text" value="Enter mother name"/>
Date of Birth <input type="text" value="Enter your DOB"/>	Full Name <input type="text" value="Enter aadhar number"/>	Email <input type="text" value="Enter your email"/>
Mobile Number <input type="text" value="Enter mobile number"/>	Gender <input type="text" value="Enter your gender"/>	Address <input type="text" value="Enter your Address"/>

Other Details

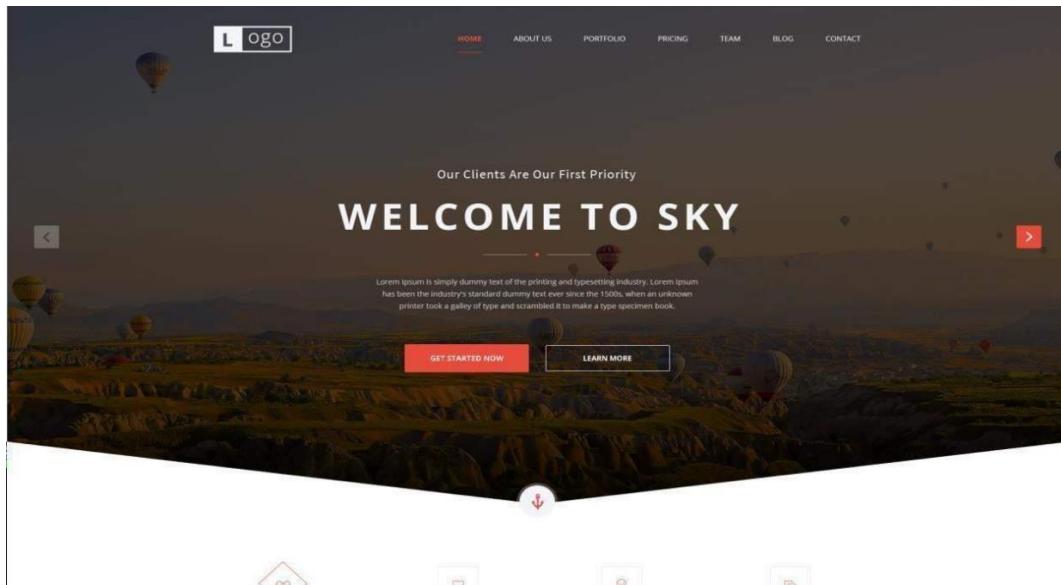
Stream <input type="text" value="Enter your stream"/>	Previous Class <input type="text" value="Enter previous class"/>	Hobbies <input type="text" value="Enter your hobbies"/>
Account Number <input type="text" value="Enter account number"/>	Religion <input type="text" value="Enter your religion"/>	Category <input type="text" value="Enter your category"/>

Module WD - CSS and CSS 3

- Create image gallery using display grid with responsive

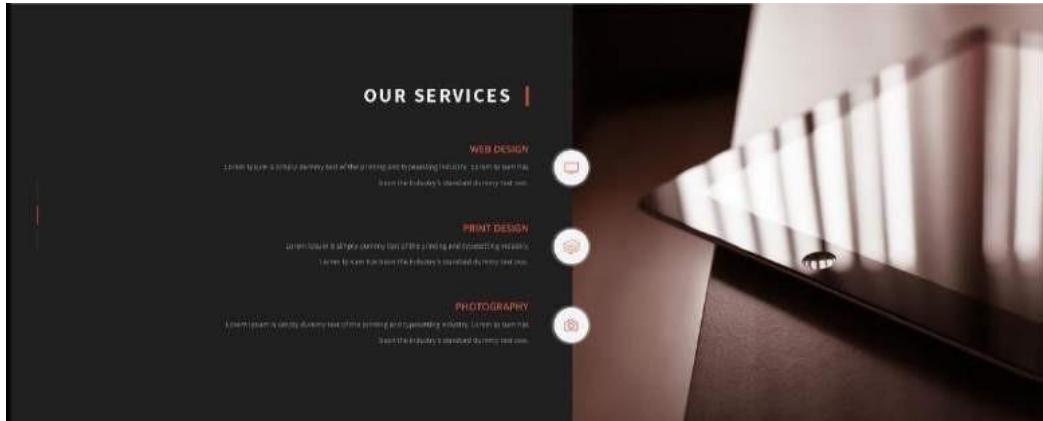


- Create below example with the help of clip path





- Multiple background one side bg-color other side contain image as bg

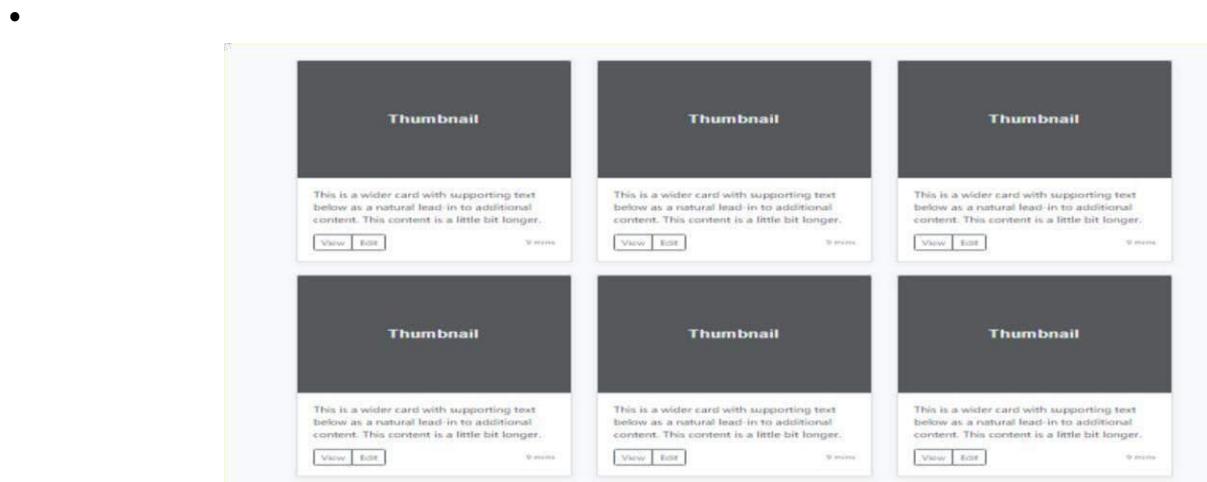


- Create below example using css waves generator (<https://getwaves.io/>)





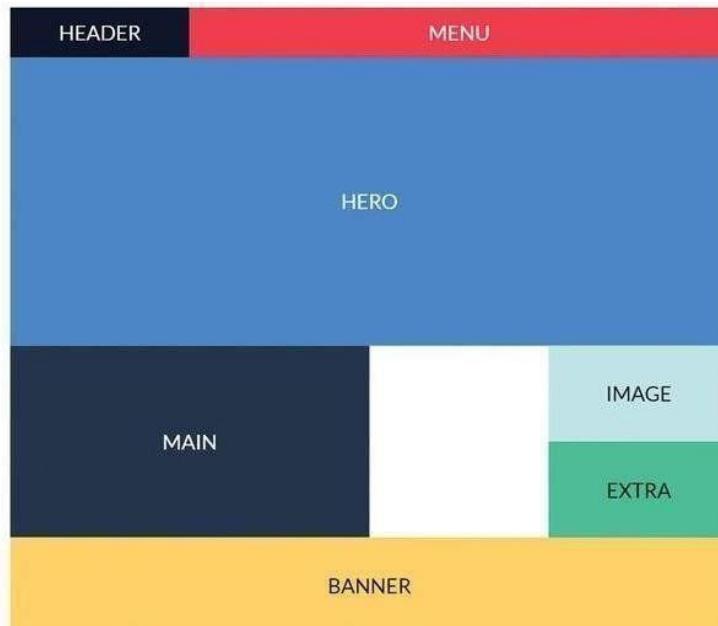
- Create Layouts





layout using html and css include media query

DESKTOP

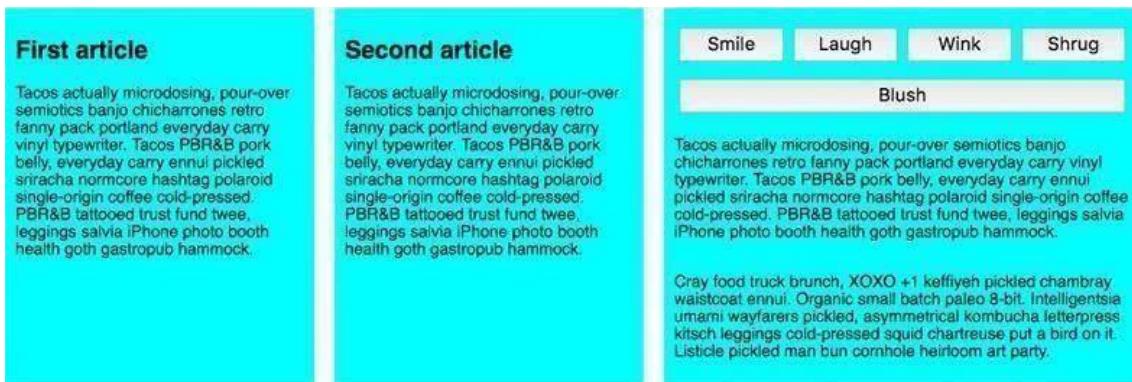


MOBILE

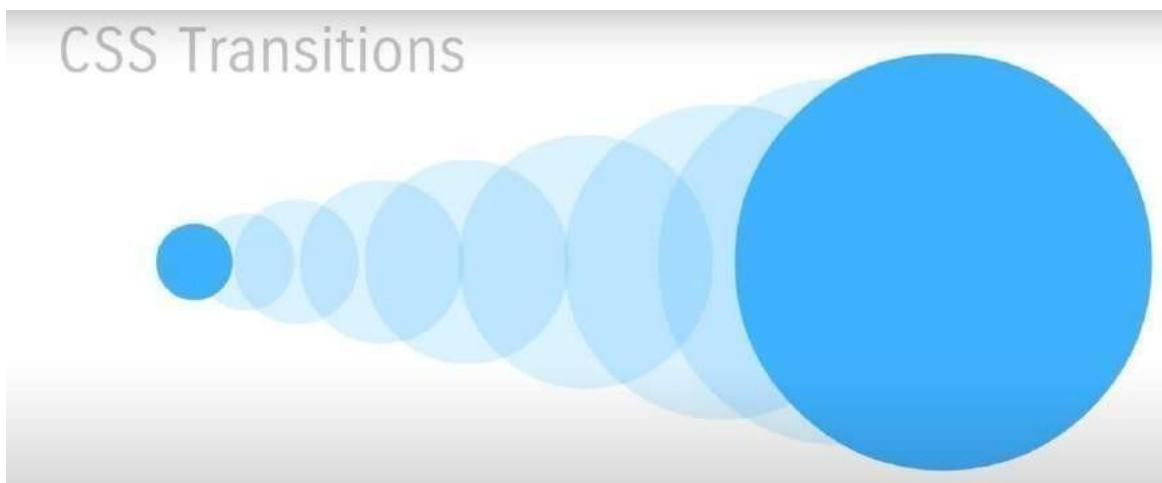
TABLET



create this using flex



- create this using transitions



- create this using css



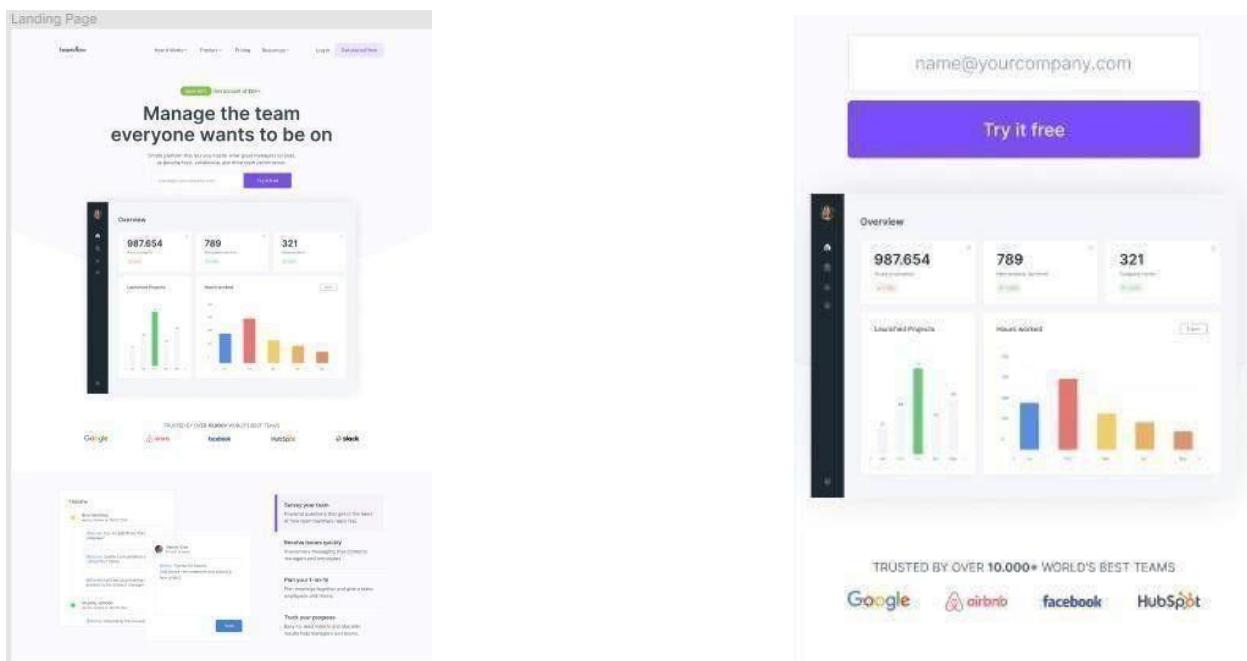
- Create below example responsive media query (use given link figma file)
[https://www.figma.com/file/THg3uvkrmtFxI49fZyeqki/Web_Mobile-%E2%80%94-Template-Website-\(Community\)?type=design&node-id=263%3A387&t=5kSwj12CLI7djPgw-1](https://www.figma.com/file/THg3uvkrmtFxI49fZyeqki/Web_Mobile-%E2%80%94-Template-Website-(Community)?type=design&node-id=263%3A387&t=5kSwj12CLI7djPgw-1)

Template-Website-

[\(Community\)?type=design&node-id=263%3A387&t=5kSwj12CLI7djPgw-1](https://www.figma.com/file/THg3uvkrmtFxI49fZyeqki/Web_Mobile-%E2%80%94-Template-Website-(Community)?type=design&node-id=263%3A387&t=5kSwj12CLI7djPgw-1)

Desktop -web

Mobile



Module - Website Designing - HTML5

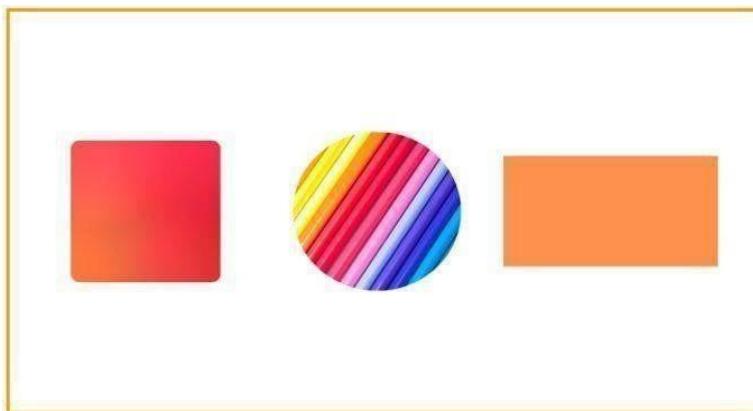
- create this using video tag



- create some audio file like this in html 5

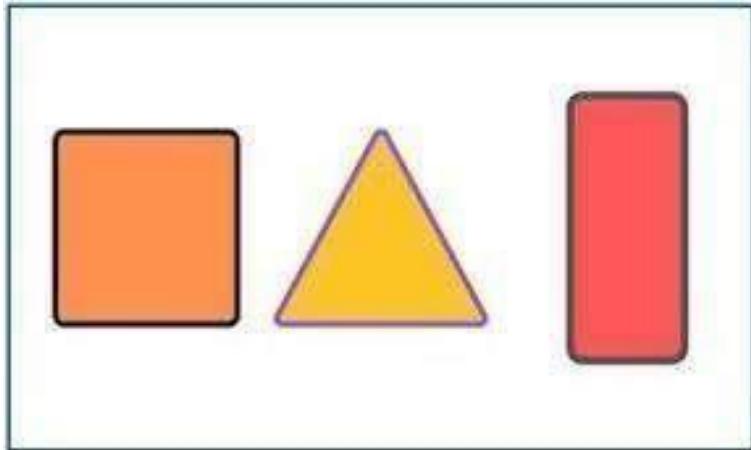


- create some shape using canvas tag in html



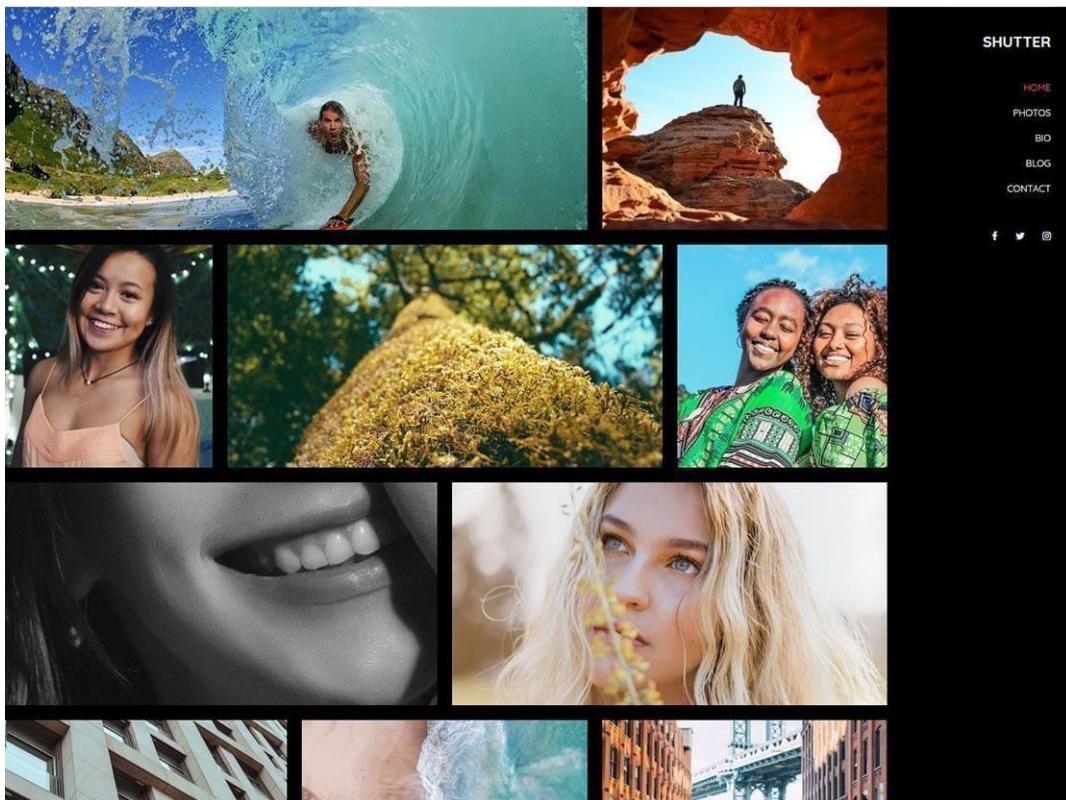


- create some shape using svg tag in html



Module – Wd - Advance CSS/CSS Preprocessors

- Make this layout using SCSS variables and mixins : -



- Create mixin for a flexbox
- Create this layout using extend

First article

Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth health goth gastropub hammock.

Second article

Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth health goth gastropub hammock.

Shutter

HOME
PHOTOS
BIO
BLOG
CONTACT

f t i

Smile Laugh Wink Shrugs

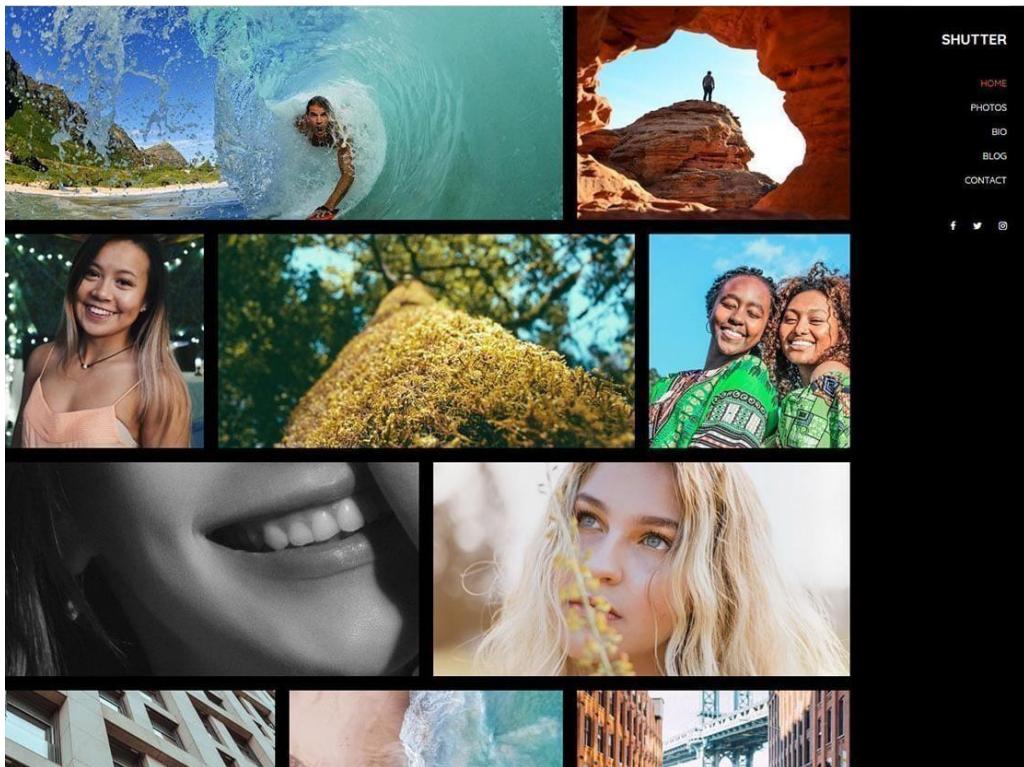
Blush

Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth health goth gastropub hammock.

Cray food truck brunch, XOXO +1 keffiyeh pickled chambray waistcoat ennui. Organic small batch paleo 8-bit. Intelligentsia umami wayfarers pickled, asymmetrical kombucha letterpress kitsch leggings cold-pressed squid chartreuse put a bird on it. Listicle pickled man bun cornhole heirloom art party.

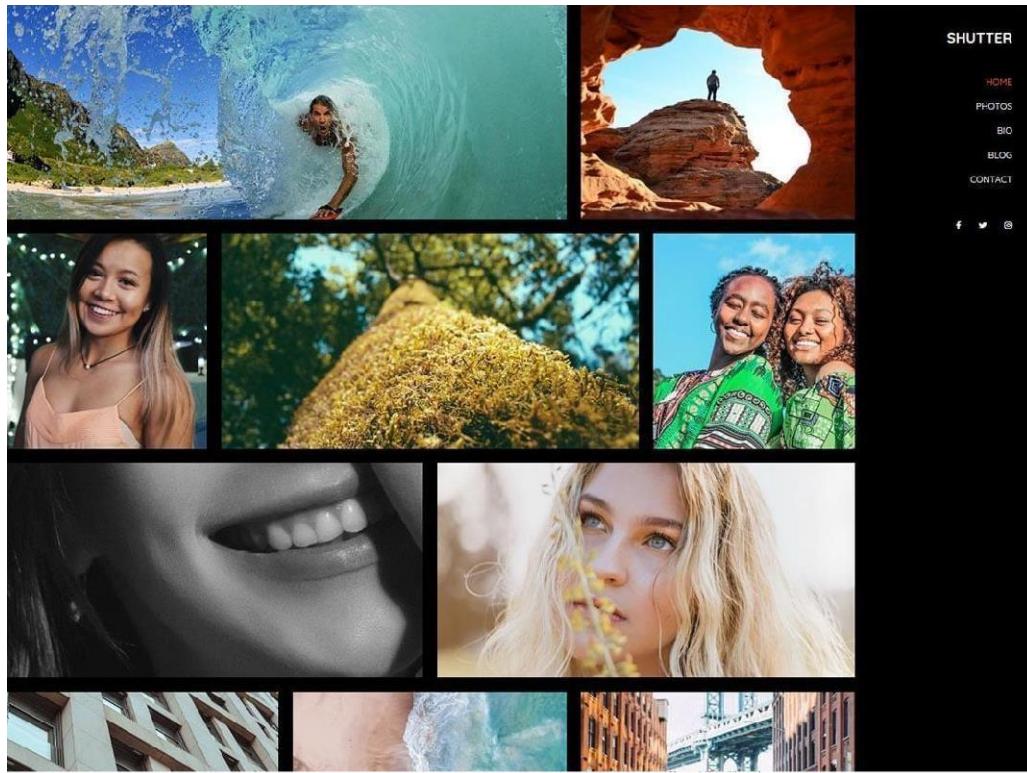


- Make this layout using LESS variables and mixins : -



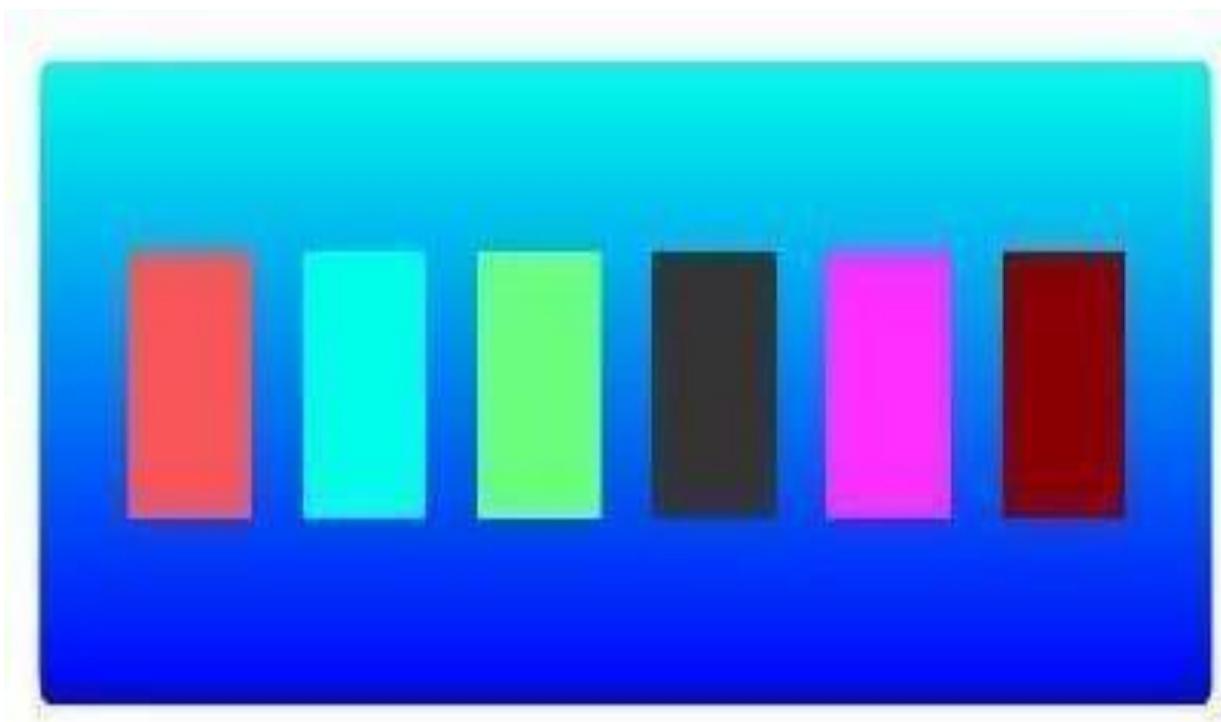


- Make this layout using SCSS variables and mixins : -



Module WD - JQuery Basic, Effects & Advanced

- How to create slider with animation?
 - Change Background-color using
JQuery



□

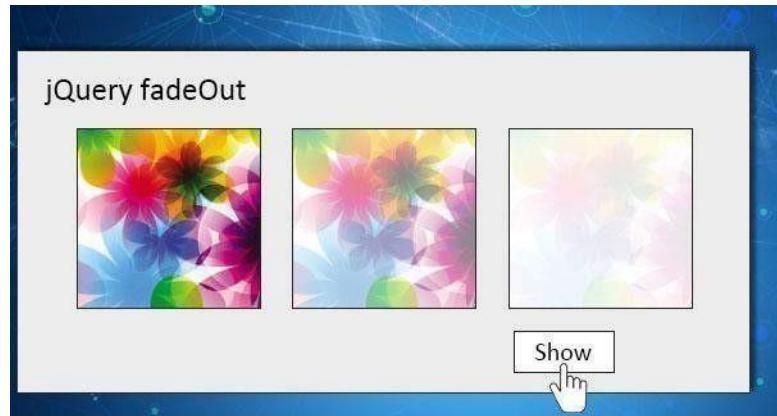
Create this using JQuery



- Create this using Jquery



- Create Fade out using JQuery



Module - WD - JavaScript Essentials & Advanced

Q.1 Using console.log() print out the following statement: The quote 'There is no exercise better for the heart than reaching down and lifting people up.' by John Holmes teaches us to help one another. Using console.log() print out the following quote by Mother Teresa:

Q.2 Check if typeof '10' is exactly equal to 10. If not make it exactly equal?

Q.3 Write a JavaScript Program to find the area of a triangle?

Q.4 Write a JavaScript program to calculate days left until next Christmas?

Q.5 What is Condition Statement?

Q.6 Find circumference of Rectangle formula : $C = 4 * a$?

Q.7 WAP to convert years into days and days into years?

Q.8 Convert temperature Fahrenheit to Celsius? (Conditional logic Question)

Q.9 Write a JavaScript exercise to get the extension of a filename.?

Q.10 What is the result of the expression $(5 > 3 \&\& 2 < 4)$?

Q.11 What is the result of the expression $(true \&\& 1 \&\& "hello")$?

Q.12 What is the result of the expression $true \&\& false \parallel false \&\& true$?

Q.13 Check Number Is Positive or Negative in JavaScript?

Q.14 Find the Character Is Vowel or Not ?

Q.15 Write to check whether a number is negative, positive or zero?

Q.16 Write to find number is even or odd using ternary operator in JS?

Q.17 Write to find maximum number among 3 numbers using ternary operator in JS?

Q.18 Write to find minimum number among 3 numbers using ternary operator in JS?

Q.19 Write to find the largest of three numbers in JS?

Q.20 Write to show

i. Monday to Sunday using switch case in JS?

ii. Vowel or Consonant using switch case in JS?

(Conditional looping logic Question)

Q.21 What are the looping structures in JavaScript? Any one Example?

Q.22 Write a print 972 to 897 using for loop in JS?

Q.23 Write to print factorial of given number?

Q.24 Write to print Fibonacci series up to given numbers?

Q.25 Write to print number in reverse order e.g.: number = 64728 ---> reverse =82746 in JS?

Q.26 Write a program make a summation of given number (E.g., 1523 Ans: - 11) in JS?

Q.27 Write a program you have to make a summation of first and last Digit. (E.g., 1234 Ans: -5) in JS?

Q.28 Use console.log() and escape characters to print the following pattern in JS?

```
1 1 1 1 1  
2 1 2 4 8  
3 1 3 9 27  
4 1 4 16 64  
5 1 5 25 125
```

Q.29 Use pattern in console.log in JS?

1) 1
1 0
1 0 1
1 0 1 0
1 0 1 0 1

2) A
B C
DE F
G H I J
K L M N O

3) 1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

4) *
* *
* * *
* * * *
* * * * *

Q.30 Accept 3 numbers from user using while loop and check each numbers palindrome

Q.31 Write a JavaScript Program to display the current day and time in the following format. Sample Output: Today is Friday. Current Time is 12 PM: 12 : 22 2 ?

Q.32 Write a JavaScript program to get the current date?

Q.33 Write a JavaScript program to compare two objects?

Q.34 Write a JavaScript program to convert an array of objects into CSV string?

Q.35 Write a JavaScript program to capitalize first letter of a string?

Q.45 Write a JavaScript program to determine if a variable is array?

Q.46 Write a JavaScript program to clone an array?

Q.47 What is the drawback of declaring methods directly in JavaScript objects?

Q.48 Print the length of the string on the browser console using console.log()?

Q.49 Change all the string characters to capital letters using toUpperCase() method?

Q.50 What is the drawback of declaring methods directly in JavaScript objects?

Q.51 Write a JavaScript program to get the current date. Expected Output : mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy?

Q.52 Use indexOf to determine the position of the first occurrence of a in 30 Days Of JavaScript?

Q.53 Use lastIndexOf to determine the position of the last occurrence of a in 30 Days Of JavaScript?

Q.54 Form Validtion in JS?

Q.55 Form in Email, number, Password, Validation?

Q.56 Dynamic Form Validation in JS?

Q.57 how many type of JS Event? How to use it ?

Q.60 What is Bom vs Dom in JS?

Q.61 Array vs object defences in JS?

Q.62 Split the string into an array using split() Method?

Q.63 Check if the string contains a word Script using includes() method?

Q.64 Change all the string characters to lowercase letters using toLowerCase() Method.

Q.65 What is Character at index 15 in '30 Days of JavaScript' string? Use charAt() method.

Q.66 copy to one string to another string in JS?

- Create basic math operation in JS

Maths Operations

Enter 1st number :

Enter 2nd number :

Answer is : 55

- Create result

Marksheet for Information Technology

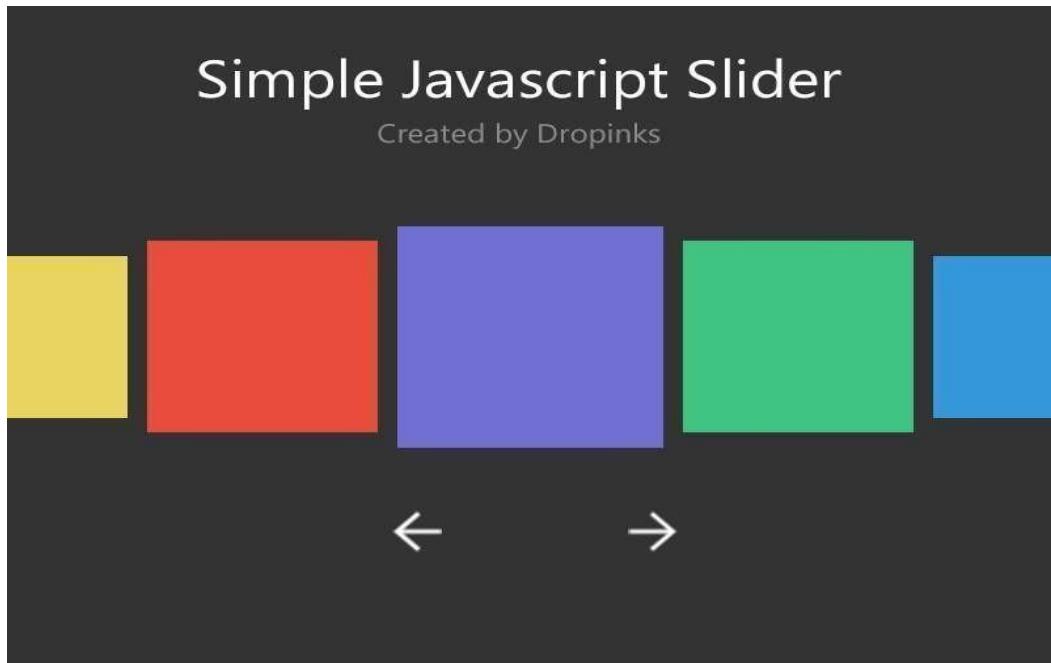
Enter Marks

1. C Language	<input type="text" value="34"/>
2. C++ Language	<input type="text" value="44"/>
3. Database	<input type="text" value="22"/>
4. HTML	<input type="text" value="33"/>
5. CSS	<input type="text" value="45"/>
6. php	<input type="text" value="44"/>
7. Core java	<input type="text" value="50"/>

Total is : 272 / 350

Percentage is : 78 %

- Create a slider using JavaScript



- Change background using java script



- Create a hide show password functionalities.



- Create a form and apply validations as shown in below example.

Sign Up

Username:

 Username must be between 3 and 25 characters.

Email:

 hello@example.com

Password:

 Password must has at least 8 characters that include at least 1 lowercase character, 1 uppercase characters, 1 number, and 1 special character in (!@#\$%^&*)

Confirm Password:

 Please enter the password again

SIGN UP

- Create basic math operation in JS

Maths Operations

Enter 1st number :

Enter 2nd number :

+**-*******

/**%**

Answer is : **55**

- Create result

Marksheet for Information Technology

Enter Marks

1. C Language	<input type="text" value="34"/>
2. C++ Language	<input type="text" value="44"/>
3. Database	<input type="text" value="22"/>
4. HTML	<input type="text" value="33"/>
5. CSS	<input type="text" value="45"/>
6. php	<input type="text" value="44"/>
7. Core java	<input type="text" value="50"/>

Result

Total is : **272 / 350** Percentage is : **78 %**

Advance JavaScript

- Calculate subtotal price of quantity show in below image

Product Info	Quantity	Price (per unit)	Price (subtotal)	
 Fortunata Window Hardware - Decorative Holdbacks - Mocha	2	\$29.99	\$59.98	Remove
 Woven Trellis Window Hardware - Clip Rings - Bronze	1	\$12.99	\$12.99	Remove
\$72.97				

- Create below form and do apply validation show in below image

Form Validation

Form Validation

Full Name

Email Address

Password
 (@)

Birth Date
 (x)

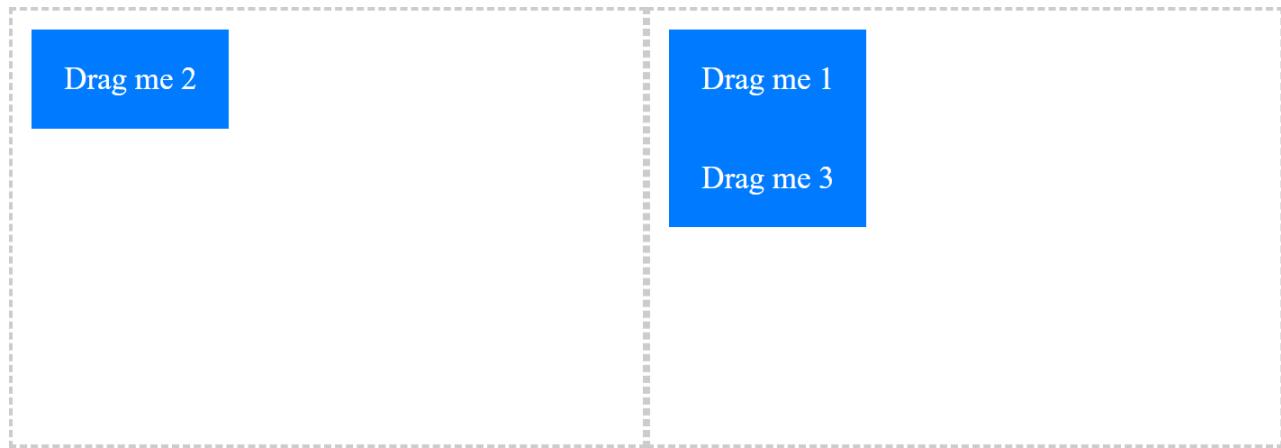
Select your date of birth

Gender
 (y)

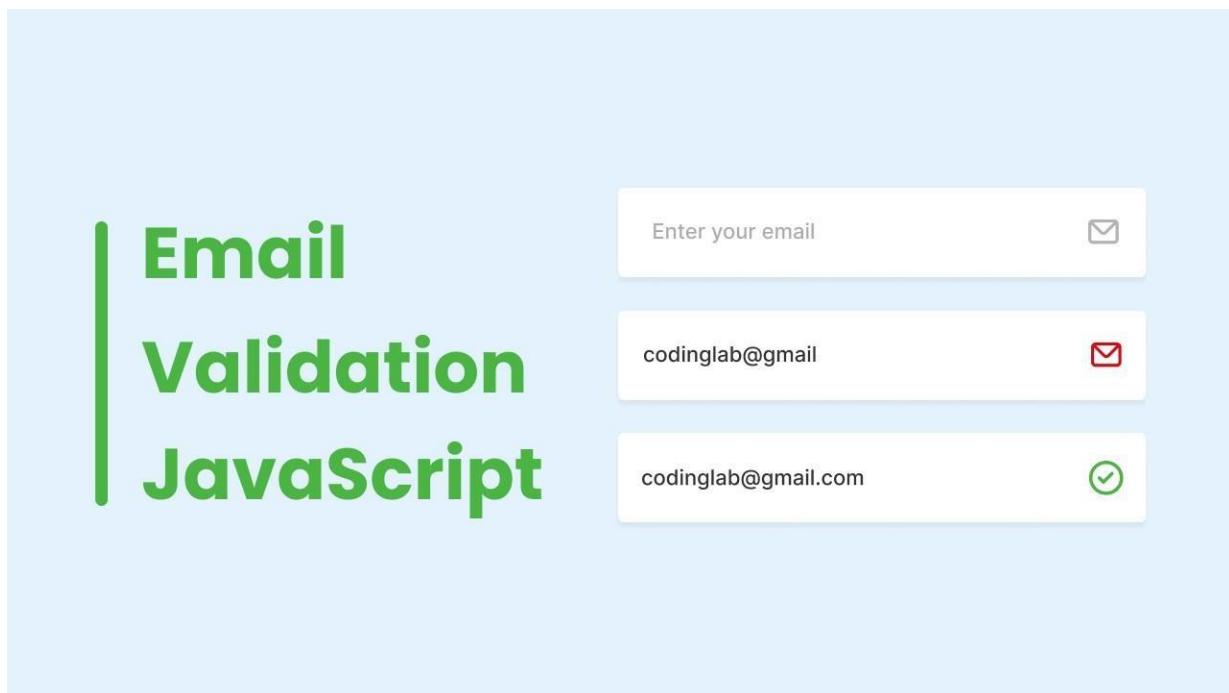
Select your gender

Submit

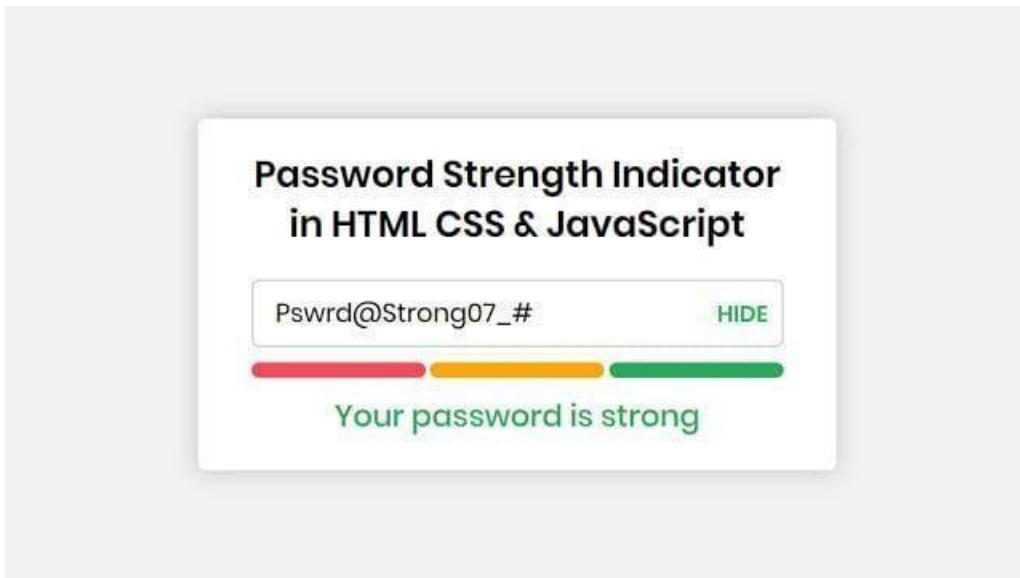
- Create two containers and drag from one to another show in below image



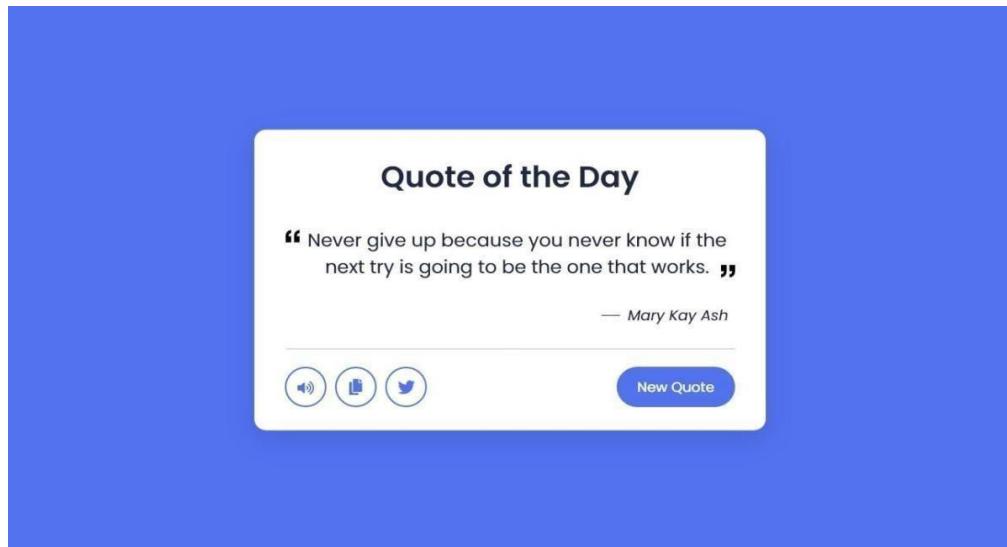
- Create Email validation program show in below image



- Create Password Strength checker show in below image



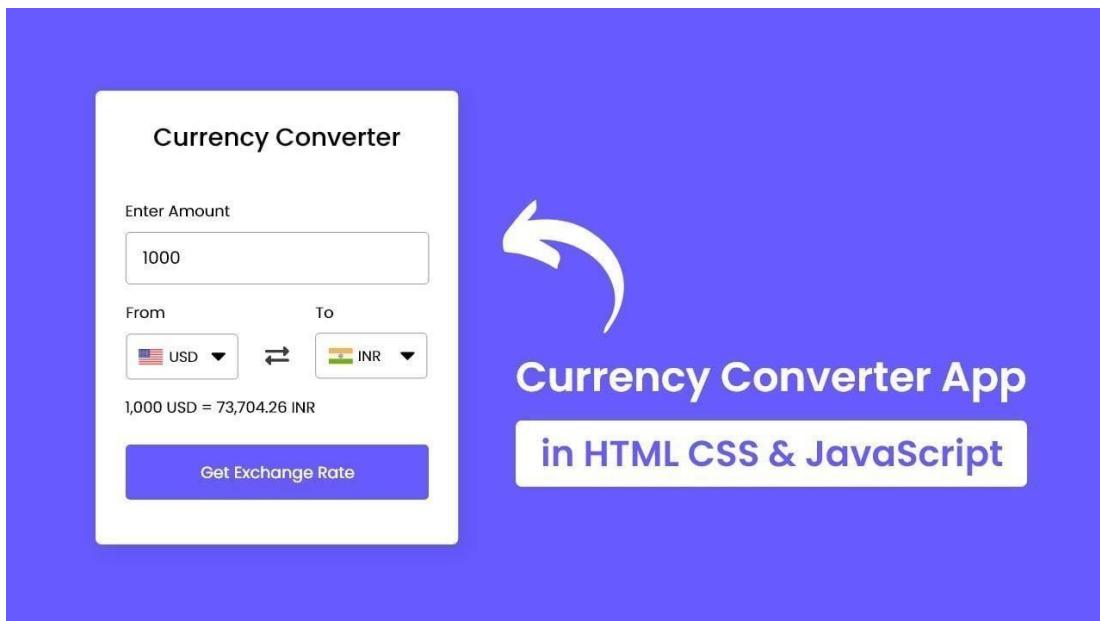
- Create program to generate Random quote show in below image



- Create program to Export html table to excel show in below image

Name	Age	Country
Alice	30	USA
Bob	25	UK
Charlie	35	Canada
Export to Excel		

- Create Currency converter show in below image



- Delay function result using debouncing
-

hi

You typed: hi

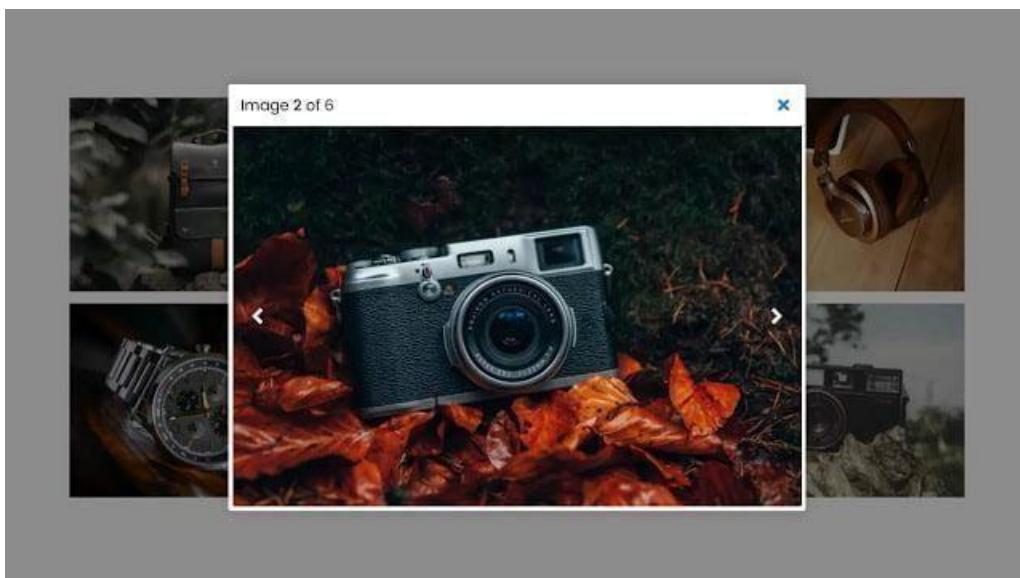
- Achieve Throttling using below example (on mouse over display mouse coordinates.)

Mouse coordinates: 324, 17

- Create Simple Alarm Clock show in below image



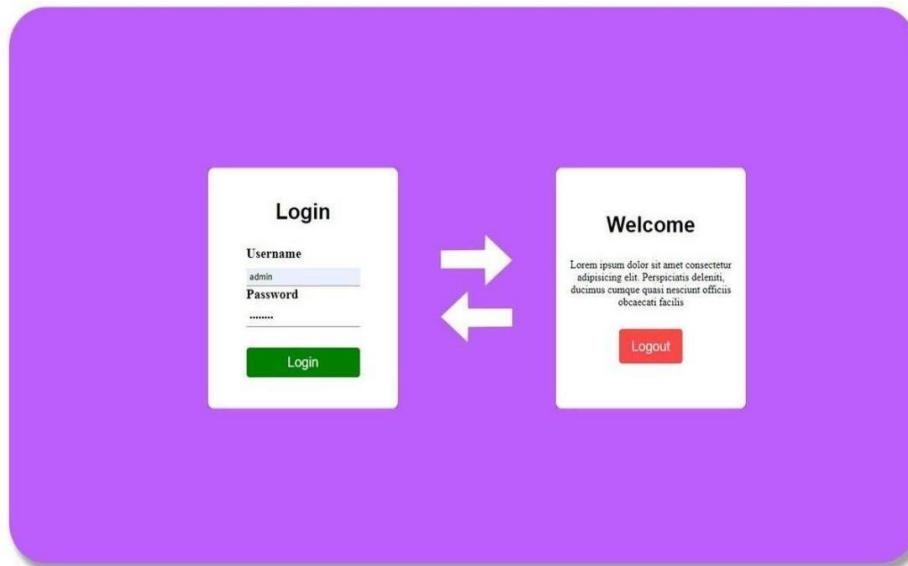
- Create Responsive Light box Gallery shown in below image



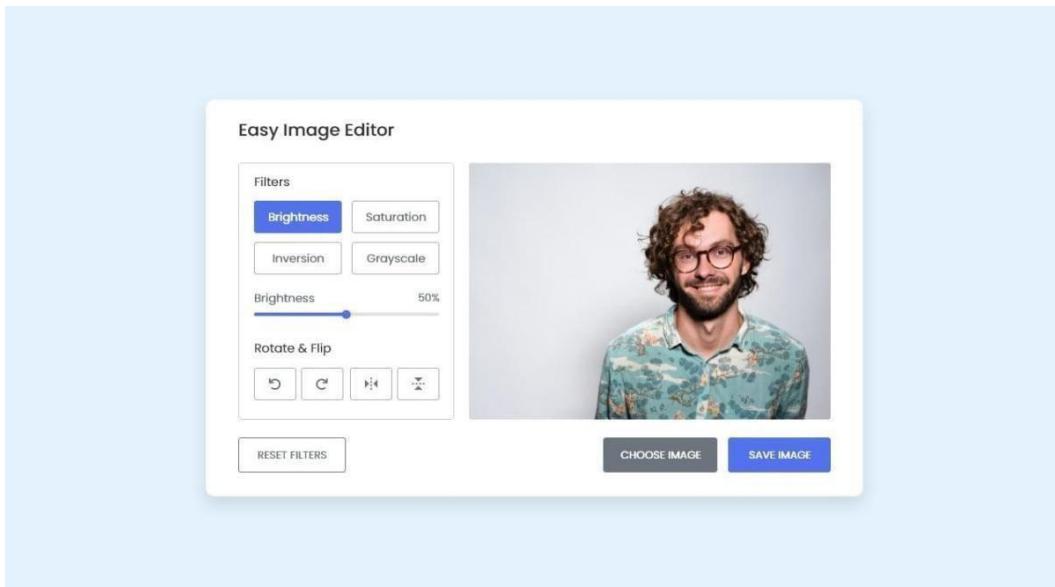
- Create review Card slider shown in below image



- Create Login Logout system shown below



- Create Image Editor shown below and apply filters like brightness, contrast etc.



- Perform Localstorage CRUD as below

CRUD with LocalStorage

Items:

Apple

milk

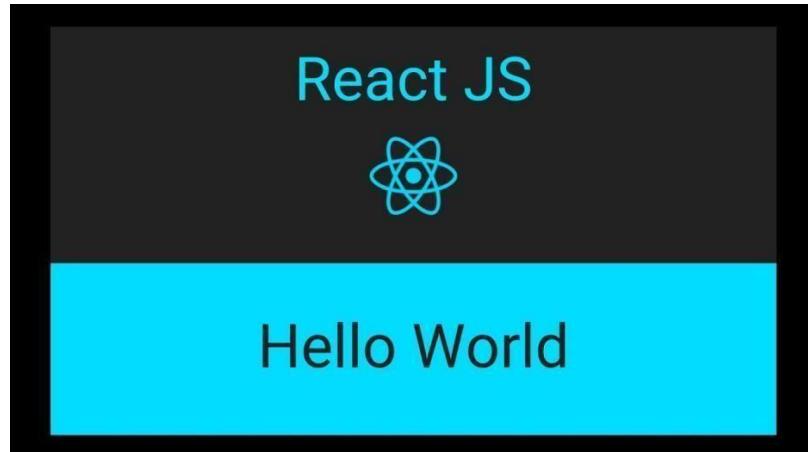
banana

bread

Module – ReactJs

Components , states ,props

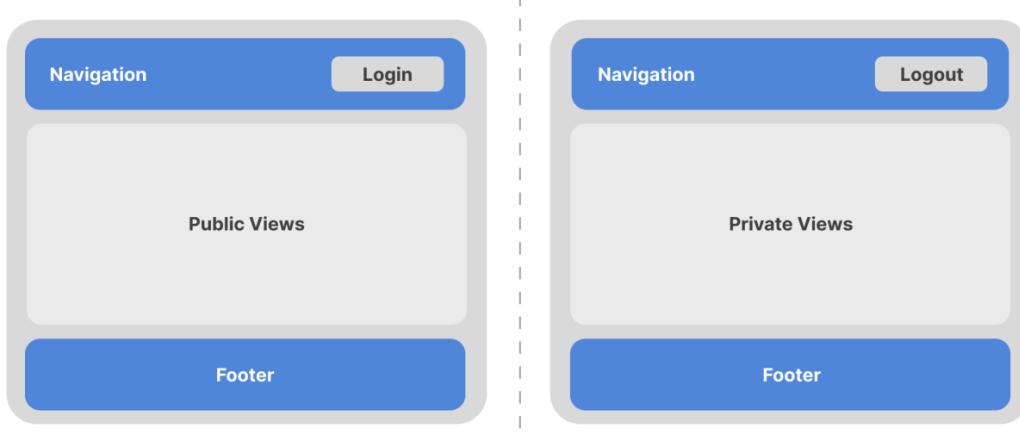
- Create Hello World React program show below



Create counter app program shown below

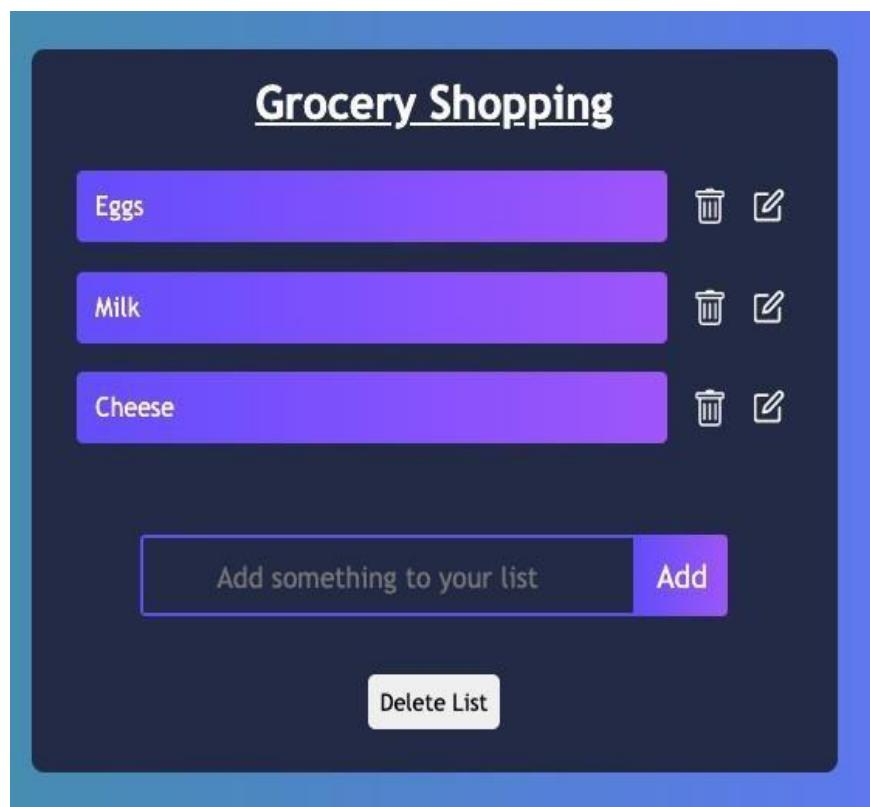


- Create Login Lout React program as below

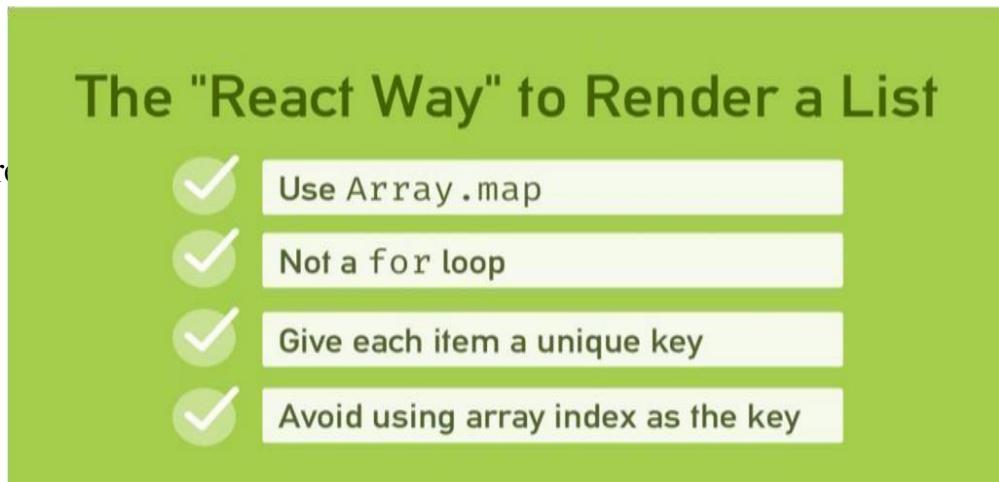


Module – Lists , Hooks , LocalStorage, Api Project

Create TODO app show in image

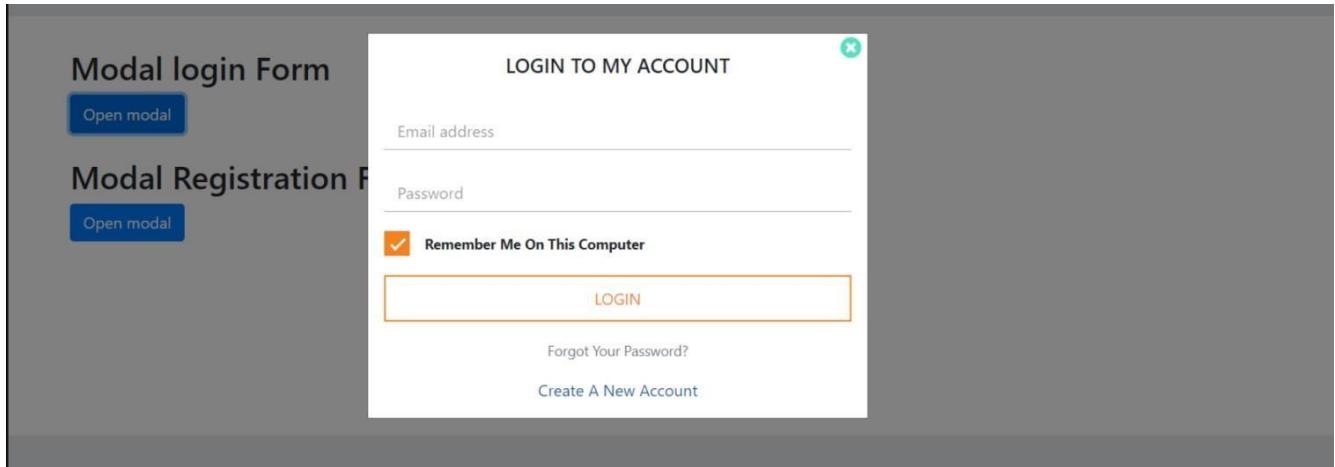


- How to Create a List View in React Js?

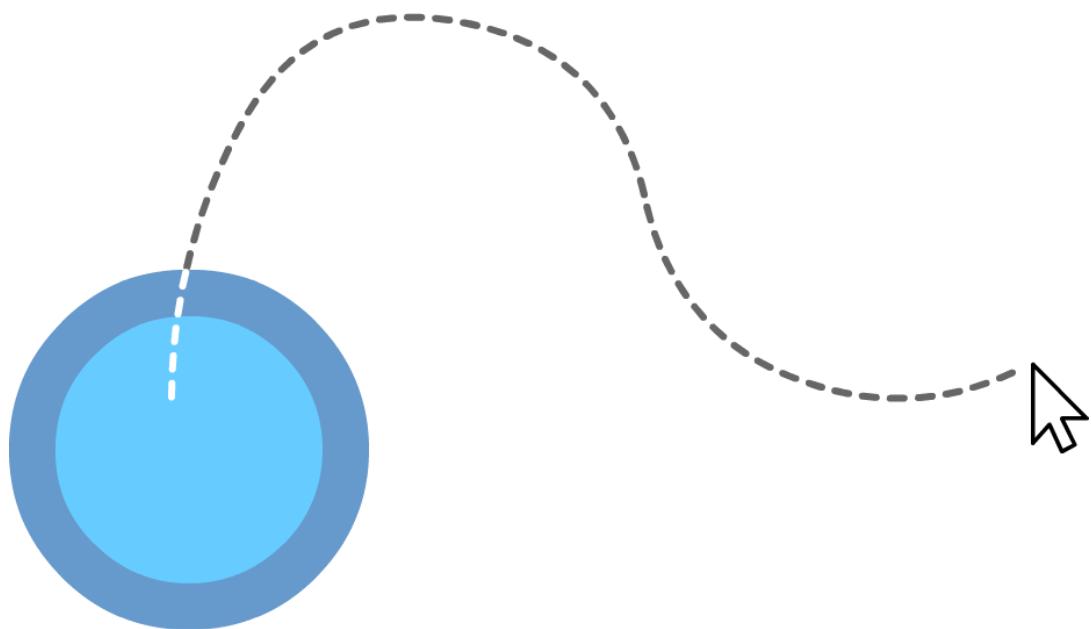




- Create modal for Login and Registration show in below image.

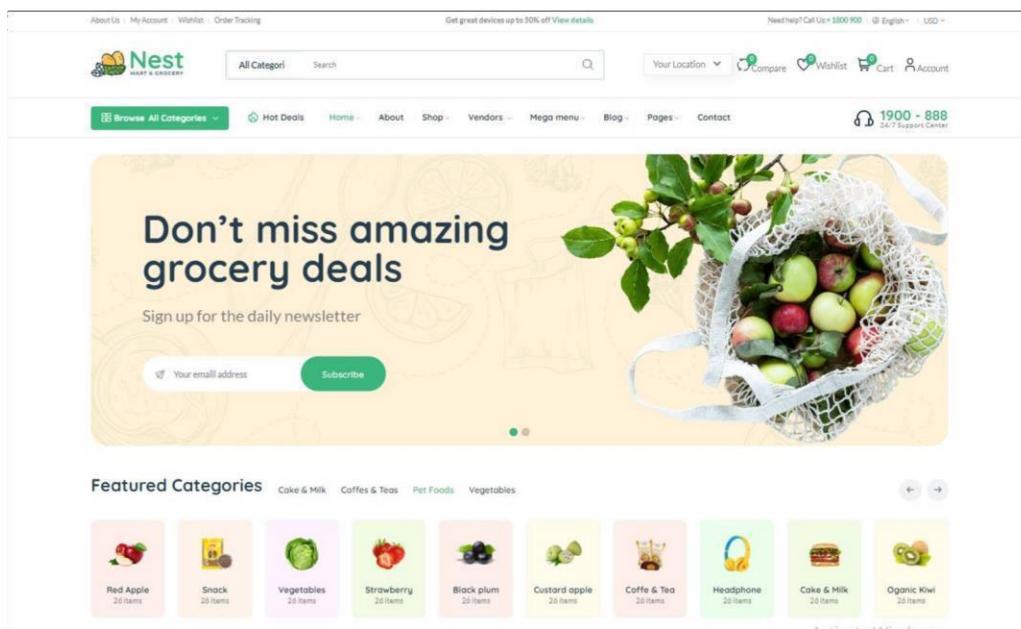


- Move an element on mouse move using useState OR useEffect Hook



Module -React -Advance React-Styling , Routing

- Create Shopping site home page with Styled- component



- Perform crud using Fake API and Material UI React Router

REACT CRUD & MATERIAL UI

≡ Search...

ADD BLOG

React JS	This is simple UI Library	 
Node JS	It is backend JS Framework	 
Angular	This is Frontend JS Framework	 
Vue JS	Another Framework for JS	 

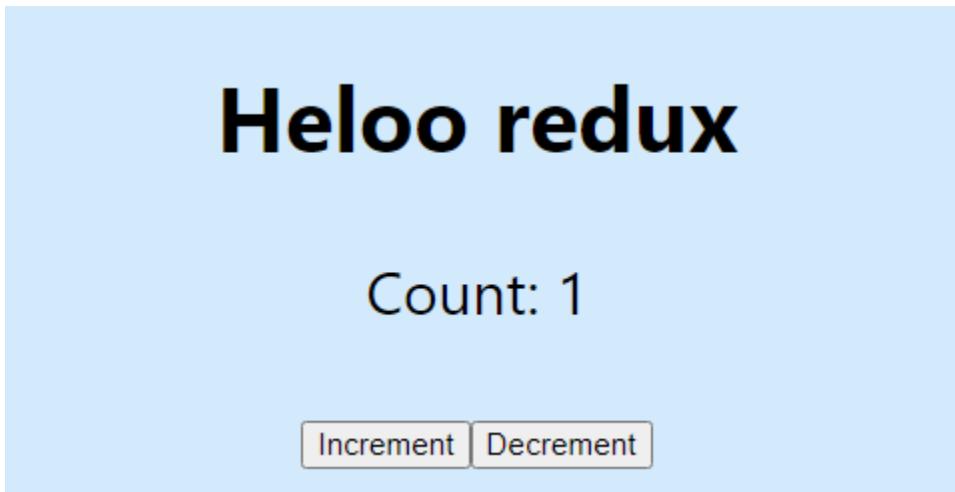
Module React – JSON-server and Firebase Real Time Database

- Create React app with modules and lazy loading (Admin-user module with child router and outlet)
- Perform Crud operation using json-server,axios,router

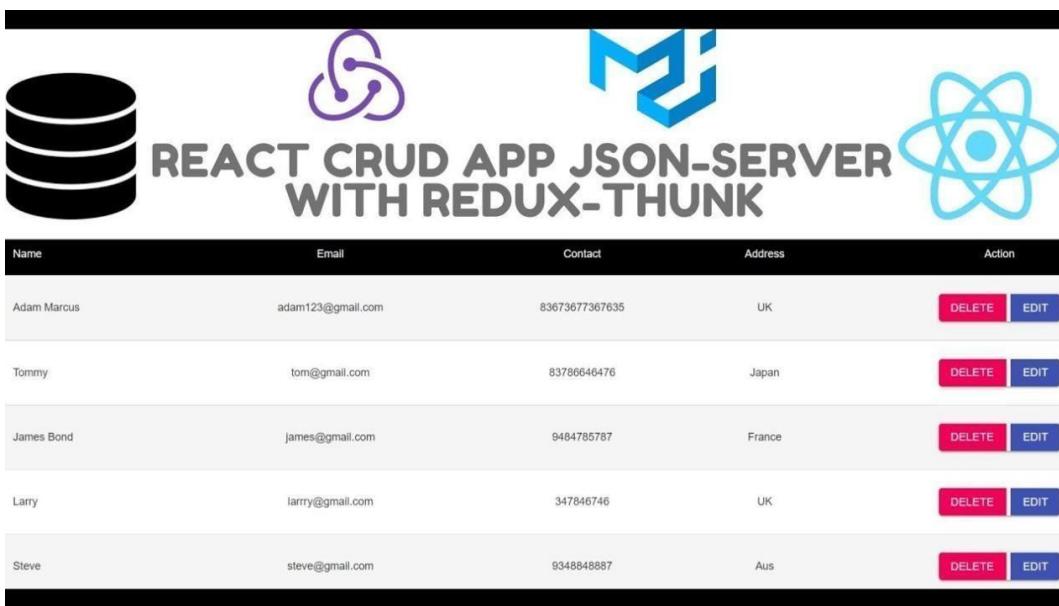


Module - React - Applying Redux

- Create app for Reduc counter as shown below?



- Create CRUD using Redux-thunk , Json-server, axios,router



The screenshot shows a React application for a CRUD (Create, Read, Update, Delete) operation using Redux-thunk, JSON-Server, and Axios. The interface includes a header with icons for a database, JSON-Server, and React. Below the header is a table displaying user data:

Name	Email	Contact	Address	Action
Adam Marcus	adam123@gmail.com	83673677367635	UK	<button>DELETE</button> <button>EDIT</button>
Tommy	tom@gmail.com	83786646476	Japan	<button>DELETE</button> <button>EDIT</button>
James Bond	james@gmail.com	9484785787	France	<button>DELETE</button> <button>EDIT</button>
Larry	larry@gmail.com	347846746	UK	<button>DELETE</button> <button>EDIT</button>
Steve	steve@gmail.com	9348848887	Aus	<button>DELETE</button> <button>EDIT</button>

- Create a Single page application as show below.
- Create this portfolio page with at least three pages those all pages should be opened without refreshing the page also apply dark light there on toggle button

