

# Full Stack assignment

# Software Engineering Assignment

## MODULE: 1 (SDLC)

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

## MODULE: 2 (HTML)

- Define the terms: Website, Webpage, Web browser, Web server, HTML, CSS
- Create a webpage to show “This is my first HTML page”
- Display top 10 IT companies list in html webpage
- Create a dropdown list
- Create a Table Of college Management system using row span & col span.
- Create below table using HTML table tags

European Roulette													
0	3	6	9	12	15	18	21	24	27	30	33	36	2to1
	2	5	8	11	14	17	20	23	26	29	32	35	2to1
	1	4	7	10	13	16	19	22	25	28	31	34	2to1
	1st12				2nd12				3rd12				
	1to18		EVEN						ODD		19to36		

- Create Registration form using HTML, CSS
- In how many ways can a CSS be integrated as a web page?
- Create simple three pages using External CSS, Internal CSS, and Inline CSS.
- Create below page using HTML CSS

**Individual Registration**

**User Particulars**

\* Login ID

\* Password

\* Confirm Password

**Personal Particulars**

* Salutation <input type="text" value="Select"/>	* First Name <input type="text"/>
Middle Name <input type="text"/>	* Last Name <input type="text"/>
* Resident Status <input type="text" value="Select"/>	* Country <input type="text" value="Select"/>
* Email-Id <input type="text"/>	* Mobile Number <input type="text"/>

**Account Particulars**

* 15 Digit Account No <input type="text"/>	* Nick Name <input type="text"/>
* Fund Transfer <input type="text" value="Select"/>	

**DECLARATION**

I have read, understood and hereby agree to the Terms and Conditions in respect of all products and channels.

I understand that any changes in the terms and conditions applicable to this relationship would be made available to me on request at any IOB branches. I confirm that all accounts under this login name are operated singly and in case of joint account operated by either or survivor/ anyone or survivor(s) under his/her joint name respectively. I do hereby declare that information furnished in this form is true to the best of my knowledge and belief.

- Create link-pseudo classes using external css, to format links on the pages.
- Create a dynamic pseudo class using HTML, CSS

## **MODULE: 3.1 (C Language Fundamental)**

- Display This Information using printf
  1. Your Name
  2. Your Birth date
  3. Your Age
  4. Your Address
- Write a program to make Simple calculator (to make addition, subtraction, multiplication, division and modulo)
- WAP to find area of circle, rectangle and triangle
- WAP to find simple interest
- WAP to check if the given year is a leap year or not.
- WAP to convert years into days and days into years

## **MODULE: 3.2 (C Language Programing with C)**

- WAP to make simple calculator (operation include Addition, Subtraction, Multiplication, Division, modulo)
- WAP to swap two numbers without using third variable
- WAP to find number is even or odd using ternary operator
- WAP to show
  1. Monday to Sunday using switch case
  2. Vowel or Consonant using switch case
- Looping programs:
  1. WAP to print 972 to 897 using for loop
  2. WAP to take 10 no. Input from user and find out ...
  3. How many Even numbers are there
  4. How many odd numbers are there
  5. Sum of even numbers
  6. Sum of odd numbers WAP to print table up to given numbers

- WAP to print factorial of given number
- WAP to print Fibonacci series up to given numbers
- WAP to print number in reverse order e.g.: number = 64728 ---> reverse = 82746
- Write a program to find out the max from given number (E.g., No: -1562 Max number is 6)
- Write a program make a summation of given number (E.g., 1523 Ans: -11)
- Write a program you have to make a summation of first and last Digit. (E.g., 1234 Ans: -5)

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

## MODULE: 3.3 (File Handling and Debugging)

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

- WAP to make addition, Subtraction and multiplication of two matrix using 2-D Array
- WAP Find out length of string without using inbuilt function
- WAP to reverse a string and check that the string is palindrome or not
- Write a program of structure employee that provides the following information -print and display empno, empname, address and age
- Write a program of structure for five employee that provides the following information -print and display empno, empname, address and age
- WAP to show difference between Structure and Union.

## **MODULE: 4.1 (C++ Basic)**

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

## **MODULE: 4.2 (Programing with C++)**

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

## 2. Member Functions

- To assign values
  - To deposited an amount
  - To withdraw an amount after checking balance
  - To display name and balance
- Write a program to find the multiplication values and the cubic values using inline function
  - Write a program of Addition, Subtraction, Division, Multiplication using constructor.
  - Write a program of Addition, Subtraction, Division, Multiplication using constructor.
  - 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)
  - 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)
  - 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)
  - Write a program to Mathematic operation like Addition, Subtraction, Multiplication, Division Of two number using different parameters and Function Overloading
  - Write a Program of Two 1D Matrix Addition using Operator Overloading
  - Write a program to concatenate the two strings using Operator Overloading

- Write a program to calculate the area of circle, rectangle and triangle using Function Overloading
  - Rectangle: Area \* breadth
  - Triangle:  $\frac{1}{2} * \text{Area} * \text{breadth}$
  - Circle:  $\text{Pi} * \text{Area} * \text{Area}$
- Write a program to swap the two numbers using friend function without using third variable
- Write a program to find the max number from given two numbers using friend function

## **MODULE: 4.2 (C, C++ Templates)**

- Write a program of to swap the two values using templates
- Write a program of to sort the array using templates.

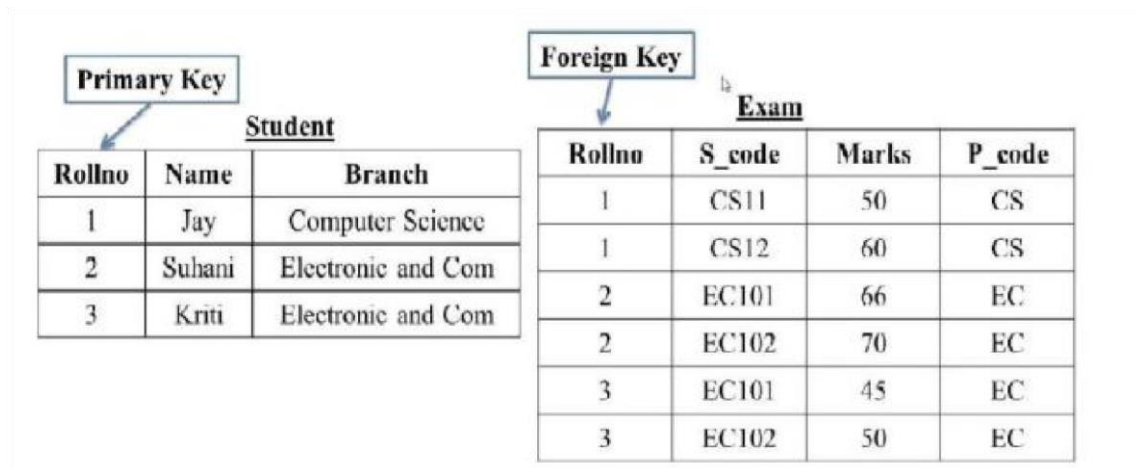
## **MODULE: 5 (Database)**

- What do you understand By Database
- What is Normalization?
- What is Difference between DBMS and RDBMS?
- What is MF Cod Rule of RDBMS Systems?
- What do you understand By Data Redundancy?
- What is DDL Interpreter?
- What is DML Compiler in SQL?
- What is SQL Key Constraints writing an Example of SQL Key Constraints
- What is save Point? How to create a save Point write a Query?
- What is trigger and how to create a Trigger in SQL?



## Task

1. Create Table Name : Student and Exam



2. Create table given below

First Name	Last Name	Address	City	Age
Mickey	Mouse	123 Fantasy Way	Anaheim	73
Bat	Man	321 Cavern Ave	Gotham	54
Wonder	Woman	987 Truth Way	Paradise	39
Donald	Duck	555 Quack Street	Mallard	65
Bugs	Bunny	567 Carrot Street	Rascal	58
Wiley	Coyote	999 Acme Way	Canyon	61
Cat	Woman	234 Purrfect Street	Hairball	32
Tweety	Bird	543	Itotltaw	28

### 3. Create table given below: Employee and Incentive

Table Name: Employee

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

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

- Get First\_Name from employee table using Tom name "Employee Name".
- Get FIRST\_NAME, Joining Date, and Salary from employee table.

- c) Get all employee details from the employee table order by First\_Name Ascending and Salary descending?
- d) Get employee details from employee table whose first name contains 'J'.
- e) Get department wise maximum salary from employee table order by salary ascending?
- f) Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000
- g) Create After Insert trigger on Employee table which insert records in view table

4. Create table given below: Salesperson and Customer

TABLE-1

TABLE NAME- SALSEPERSON

(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

Retrieve the below data from above table

- a) All orders for more than \$1000.
- b) Names and cities of all salespeople in London with commission above 0.12
- c) All salespeople either in Barcelona or in London

- d) All salespeople with commission between 0.10 and 0.12. (Boundary values should be excluded).
- e) All customers excluding those with rating  $\leq 100$  unless they are located in Rome

# **Web Designing Assignment**

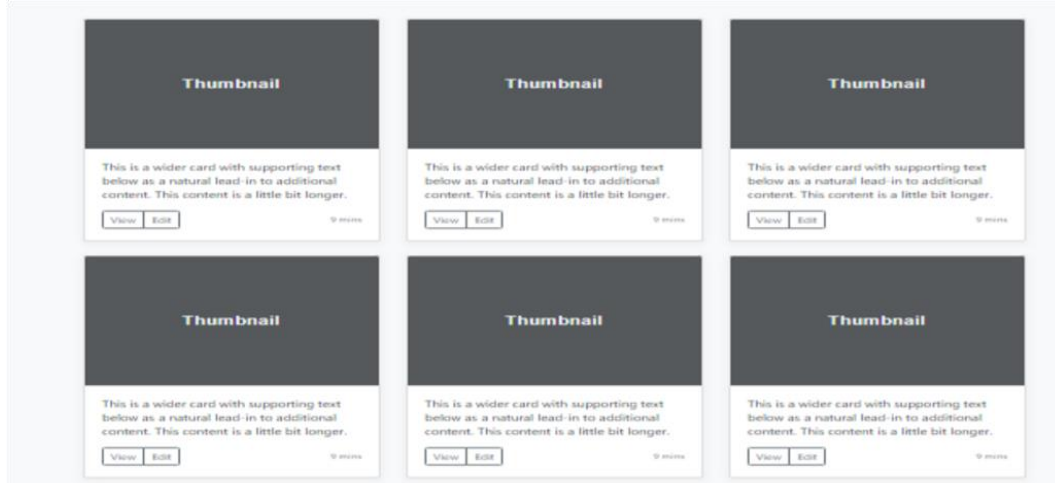
## **Term-1**

### **Module (HTML) -1**

- Are the HTML tags and elements the same thing?
- What are tags and attributes in HTML?
- What are void elements in HTML?
- What are HTML Entities?
- What are different types of lists in HTML?
- What is the 'class' attribute in HTML?
- What is the difference between the 'id' attribute and the 'class' attribute of HTML elements?
- What are the various formatting tags in HTML?
- How is Cell Padding different from Cell Spacing?
- How can we club two or more rows or columns into a single row or column in an HTML table?
- What is the difference between a block-level element and an inline element?
- How to create a Hyperlink in HTML?
- What is the use of an iframe tag?
- What is the use of a span tag? Explain with example?
- How to insert a picture into a background image of a web page?
- How are active links different from normal links?
- What are the different tags to separate sections of text?
- What is SVG?
- What is difference between HTML and XHTML?
- What are logical and physical tags in HTML?

## **Module (CSS and CSS 3) -2**

- What are the benefits of using CSS?
- What are the disadvantages of CSS?
- What is the difference between CSS2 and CSS3?
- Name a few CSS style components
- What do you understand by CSS opacity?
- How can the background color of an element be changed?
- How can image repetition of the backup be controlled?
- What is the use of the background-position property?
- Which property controls the image scroll in the background?
- Why should background and color be used as separate properties?
- How to center block elements using CSS1?
- How to maintain the CSS specifications?
- What are the ways to integrate CSS as a web page?
- What is embedded style sheets?
- What are the external style sheets?
- What are the advantages and disadvantages of using external style sheets?
- What is the meaning of the CSS selector?
- What are the media types allowed by CSS?
- What is the rule set?
- Create Layouts



## **Module (HTML5) – 3**

- What are the new tags added in HTML5?
- How to embed audio and video in a webpage?
- Semantic element in HTML5?
- Canvas and SVG tags

## **Module (JAVASCRIPT BASIC & DOM) – 4**

- What is JavaScript?
- What is the use of isNaN function?
- What is negative Infinity?

- Which company developed JavaScript?
- What are undeclared and undefined variables?
- Write the code for adding new elements dynamically?
- What is the difference between ViewState and SessionState?
- What is === operator?
- How can the style/class of an element be changed?
- How to read and write a file using JavaScript?
- What are all the looping structures in JavaScript?
- How can you convert the string of any base to an integer in JavaScript?
- What is the function of the delete operator?
- What are all the types of Pop up boxes available in JavaScript?
- What is the use of Void (0)?
- How can a page be forced to load another page in JavaScript?
- What are the disadvantages of using innerHTML in JavaScript?

## **Module (jQuery Basic, Effects & Advanced) – 5**

- What is jQuery?
- How to Apply CSS Using JQuery, How to Add Class and Remove Class in JQuery , JQuery Animation?
- How to create slider with animation?

## **Module (Bootstrap Basic & Advanced) – 6**

- What are the advantages of Bootstrap?
- What is a Bootstrap Container, and how does it work?



- What are the default Bootstrap text settings?
- What do you know about the Bootstrap Grid System?
- What is the difference between Bootstrap 4 and Bootstrap 5
- What is a Button Group, and what is the class for a basic Button Group?
- How can you use Bootstrap to make thumbnails?
- In Bootstrap 4, what is flexbox?
- How can one create an alert in Bootstrap?
- What is a bootstrap card and how would you create one?



# Advance JavaScript

## MODULE: 1 (Introduction and Code Quality)

- Write a program to Show an alert
- What will be the result for these expressions?

1.  $5 > 4$
2. `"apple" > "pineapple"`
3. `"2" > "12"`
4. `undefined == null`
5. `undefined === null`
6. `null == "\n0\n"`
7. `7. null === +"\n0\n"`

- Will alert be shown?

```
if ("0") { alert( 'Hello'); }
```

- What is the code below going to output? `alert( null || 2 || undefined );`
- The following function returns true if the parameter age is greater than 18. Otherwise it asks for a confirmation and returns its result:

function

checkAge(age)

{

if (age > 18) { return true; }

else {

// ...return confirm ('did parents allow you?');

}

}

- Replace Function Expressions with arrow functions in the code below:

Function

ask(question, yes, no)

```
{ if (confirm(question))yes();  
    else  
    no();  
}  
ask("Do you agree?", function()  
    { alert("You agreed."); },  
function() {  
    alert("You canceled the execution."); }  
}
```

## MODULE: 2 (Data Types and Objects)

- Write the code, one line for each action:

- a) Create an empty object user.
- b) Add the property name with the value John.
- c) Add the property surname with the value Smith.
- d) Change the value of the name to Pete.
- e) Remove the property name from the object.

- Is array copied?

```
let fruits = ["Apples", "Pear", "Orange"]; // push a new value into the "copy" let  
shoppingCart = fruits; shoppingCart.push("Banana"); // what's in fruits?
```

```
alert( fruits.length ); // ?
```

- Map to names

```
let john = { name: "John", age: 25 }; let pete = { name: "Pete", age: 30 }; let mary =  
{ name: "Mary", age: 28 }; let users = [ john, pete, mary ]; let names = /* ... your  
code */ alert( names ); // John, Pete, Mary
```

- Map to objects

```
let john = { name: "John", surname: "Smith", id: 1 }; let pete = { name: "Pete",  
surname: "Hunt", id: 2 }; let mary = { name: "Mary", surname: "Key", id: 3 }; let  
users = [ john, pete, mary ]; let usersMapped = /* ... your code ... */
```

```
/*
```

```
usersMapped = [
```

```
  { fullName: "John Smith", id: 1 },
```

```
  { fullName: "Pete Hunt", id: 2 },
```

```
  { fullName: "Mary Key", id: 3 }
```

```
]
```

```
*/ alert( usersMapped[0].id ) // 1 alert( usersMapped[0].fullName ) // John Smith
```

- Sum the properties There is a salaries object with arbitrary number of salaries. Write the function `sumSalaries(salaries)` that returns the sum of all salaries using `Object.values` and the `for..of` loop. If salaries is empty, then the result must be 0.

```
let salaries = {
```

```
  "John": 100,
```

```
  "Pete": 300,
```

```
  "Mary": 250
```

```
};
```

```
alert( sumSalaries(salaries) ); // 650
```

- Destructuring assignment We have an object: Write the Destructuring assignment that reads:
  - a) Name property into the variable name.
  - b) Year's property into the variable age.
  - c) isAdmin property into the variable isAdmin (false, if no such property)
  - d) let user = { name: "John", years: 30};
- Turn the object into JSON and back Turn the user into JSON and then read it back into another variable.

```
user = { name: "John Smith", age: 35};
```

## **MODULE: 3 (Document, Event and Controls)**

- Create a program to hide/show the password
- Create a program that will select all the classes and loop over and whenever i click the button the alert should show
- Create a responsive header using proper JavaScript
- Create a form and validate using JavaScript
- Create a modal box using css and Js with three buttons
- Use external js library to show slider
- Prevent the browser when i click the form submit button

## **MODULE: 4 (New Request)**

- What is JSON
- What is promises
- Write a program of promises and handle that promises also
- Use fetch method for calling an api <https://fakestoreapi.com/products>
- Display all the product from the api in your HTML page



# React Js Assignments

## Module -1

- HTML–CSS Login Registration page

## Module – 2 Advance JavaScript

- Calculate subtotal price of quantity in JavaScript?

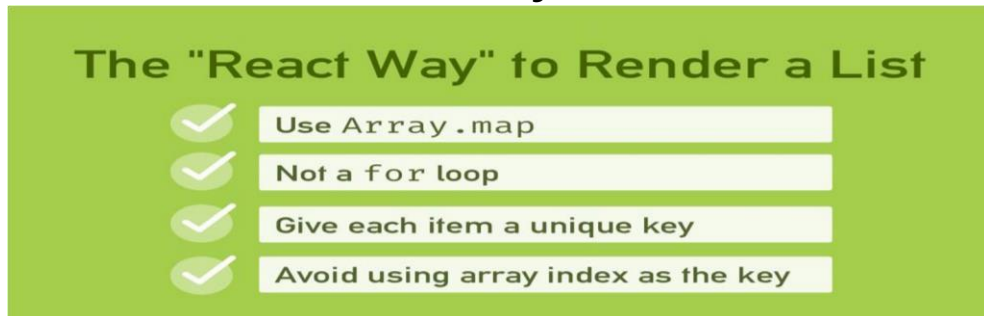
Product Info	Quantity	Price (per unit)	Price (subtotal)	
 Fortunata Window Hardware - Decorative Holdbacks - Mocha	<input type="text" value="2"/>	\$29.99	\$59.98	<button>Remove</button>
 Woven Trellis Window Hardware - Clip Rings - Bronze	<input type="text" value="1"/>	\$12.99	\$12.99	<button>Remove</button>
			\$72.97	

- What is JavaScript Output method?
- How to used JavaScript Output method?
- How to used JavaScript Events to do all examples?

## Module – 3 ReactJs

- What is React Js?
- What is NPM in React Js?
- What is Role of Node Js in react Js?
- What is CLI command In React Js?
- What is Components in React Js?
- What is Header and Content Components in React Js?
- How to install React Js on Windows, linux Operating System? □ How to install NPM and How to check version of NPM?

- How to check version of React Js?
- How to change in components of React Js?
- How to Create a List View in React Js?



- Create Increment decrement state change by button click?

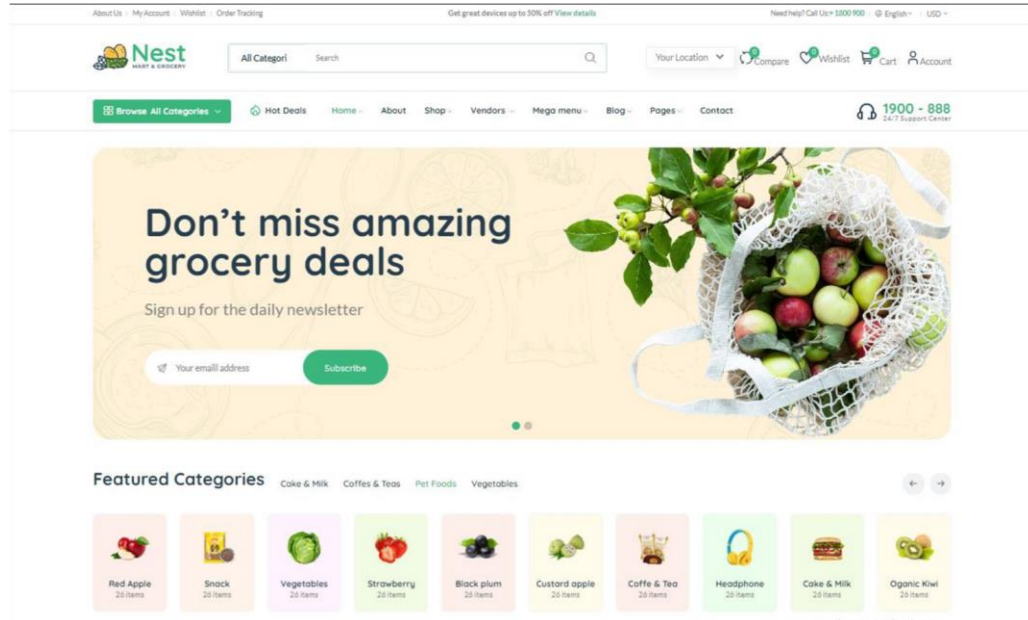


## Module – 4 Lists and Hooks

- Explain Life cycle in Class Component and functional component with Hooks

## Module-5) React - Styling & Advance React

- Create Shopping site home page with Styled- component



## Module 6) React Router

- Create React app with modules and lazy loading (Admin-user module with child router and outlet)

## Module-7) React - Applying Redux

- What is Redux?
- What is Redux Thunk used for?
- What is Pure Component? When to use Pure Component over Component?
- What is the second argument that can optionally be passed to setState and what is its purpose?
- Create a Table and Search data from table using React Js ?



← → localhost/php-ajax-crud-level-1.5/

Search products: shirt

shirt

[+ Create Product](#)

Name	Price	Category	Action
Amanda Valley Shirt Men	\$333	Fashion	<a href="#">Read</a> <a href="#">Edit</a> <a href="#">Delete</a>
Abercrombie Allen Brook Shirt	\$70	Fashion	<a href="#">Read</a> <a href="#">Edit</a> <a href="#">Delete</a>
Abercrombie Lake Arnold Shirt	\$60	Fashion	<a href="#">Read</a> <a href="#">Edit</a> <a href="#">Delete</a>
Bench Shirt	\$29	Fashion	<a href="#">Read</a> <a href="#">Edit</a> <a href="#">Delete</a>

- Create Login registration with CRUD Application using API (Redux)

# Python Assignment

## Module – 2 (Fundamentals of python)

- Write a Python program to check if a number is positive, negative or zero.
- Write a Python program to get the Factorial number of given number.
- Write a Python program to get the Fibonacci series of given range.
- How memory is managed in Python?
- What is the purpose continue statement in python?
- Write python program that swap two number with temp variable and without temp variable.
- Write a Python program to find whether a given number is even or odd, print out an appropriate message to the user.
- Write a Python program to test whether a passed letter is a vowel or not.
- Write a Python program to sum of three given integers. However, if two values are equal sum will be zero.
- Write a Python program that will return true if the two given integer values are equal or their sum or difference is 5.
- Write a python program to sum of the first n positive integers.
- Write a Python program to calculate the length of a string.
- Write a Python program to count the number of characters (character frequency) in a string
- What are negative indexes and why are they used?
- Write a Python program to count occurrences of a substring in a string.
- Write a Python program to count the occurrences of each word in a given sentence

- Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string.
- Write a Python program to add 'ing' at the end of a given string (length should be at least 3). If the given string already ends with 'ing' then add 'ly' instead if the string length of the given string is less than 3, leave it unchanged.
- Write a Python program to find the first appearance of the substring 'not' and 'poor' from a given string, if 'not' follows the 'poor', replace the whole 'not'...'poor' substring with 'good'. Return the resulting string.
- Write a Python function that takes a list of words and returns the length of the longest one.
- Write a Python function to reverse a string if its length is a multiple of 4.
- Write a Python program to get a string made of the first 2 and the last 2 chars from a given string. If the string length is less than 2, return instead of the empty string.
- Write a Python function to insert a string in the middle of a string.

## **Module – 3 (Collections, functions and Modules)**

- What is List? How will you reverse a list?
- How will you remove last object from a list?  
Suppose list1 is [2, 33, 222, 14, and 25], what is list1 [-1]?
- Differentiate between append () and extend () methods?
- Write a Python function to get the largest number, smallest num and sum of all from a list.
- How will you compare two lists?

- Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings.
- Write a Python program to remove duplicates from a list.
- Write a Python program to check a list is empty or not.
- Write a Python function that takes two lists and returns true if they have at least one common member.
- Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30.
- Write a Python function that takes a list and returns a new list with unique elements of the first list.
- Write a Python program to convert a list of characters into a string.
- Write a Python program to select an item randomly from a list.
- Write a Python program to find the second smallest number in a list.
- Write a Python program to get unique values from a list
- Write a Python program to check whether a list contains a sub list
- Write a Python program to split a list into different variables.
- What is tuple? Difference between list and tuple.
- Write a Python program to create a tuple with different data types.
- Write a Python program to create a tuple with numbers.
- Write a Python program to convert a tuple to a string.
- Write a Python program to check whether an element exists within a tuple.
- Write a Python program to find the length of a tuple.
- Write a Python program to convert a list to a tuple.
- Write a Python program to reverse a tuple.
- Write a Python program to replace last value of tuples in a list.
- Write a Python program to find the repeated items of a tuple.
- Write a Python program to remove an empty tuple(s) from a list of tuples.
- Write a Python program to unzip a list of tuples into individual lists.
- Write a Python program to convert a list of tuples into a dictionary.
- How will you create a dictionary using tuples in python?

- Write a Python script to sort (ascending and descending) a dictionary by value.
- Write a Python script to concatenate following dictionaries to create a new one.
- Write a Python script to check if a given key already exists in a dictionary.
- How Do You Traverse Through A Dictionary Object In Python?
- How Do You Check The Presence Of A Key In A Dictionary?
- Write a Python script to print a dictionary where the keys are numbers between 1 and 15.
- Write a Python program to check multiple keys exists in a dictionary
- Write a Python script to merge two Python dictionaries
- Write a Python program to map two lists into a dictionary
- Write a Python program to combine two dictionary adding values for common keys.

`d1 = {'a': 100, 'b': 200, 'c': 300} o d2 = {'a': 300, 'b': 200, 'd': 400}`

**Sample output: Counter ({'a': 400, 'b': 400, 'd': 400, 'c': 300}).**

- Write a Python program to print all unique values in a dictionary.
- Why Do You Use the Zip () Method in Python?
- Write a Python program to create and display all combinations of letters, selecting each letter from a different key in a dictionary.

Sample data: `{'1': ['a','b'], '2': ['c','d']}`

**Expected Output:**

**ac ad bc bd**

- Write a Python program to find the highest 3 values in a dictionary
  - Write a Python program to combine values in python list of dictionaries.
- Sample data: `[{'item': 'item1', 'amount': 400}, {'item': 'item2', 'amount': 300}, o {'item': 'item1', 'amount': 750}]`

**Expected Output:**

**Counter ({'item1': 1150, 'item2': 300})**

- Write a Python program to create a dictionary from a string.

Note: Track the count of the letters from the string.

Sample string: 'w3resource'

**Expected output:**

**{'3': 1, 's': 1, 'r': 2, 'u': 1, 'w': 1, 'c': 1, 'e': 2, 'o': 1}**

- Write a Python function to calculate the factorial of a number (a nonnegative integer)
- Write a Python function to check whether a number is in a given range
- Write a Python function to check whether a number is perfect or not.
- Write a Python function that checks whether a passed string is palindrome or not
- How Many Basic Types Of Functions Are Available In Python?
- How can you pick a random item from a list or tuple?
- How can you pick a random item from a range?
- How can you get a random number in python?
- How will you set the starting value in generating random numbers?
- How will you randomizes the items of a list in place?
- Write a Python program to read a random line from a file.
- Write a Python program to convert degree to radian
- Write a Python program to calculate the area of a trapezoid
- Write a Python program to calculate the area of a parallelogram
- Write a Python program to calculate surface volume and area of a cylinder
- Write a Python program to returns sum of all divisors of a number
- Write a Python program to find the maximum and minimum numbers from the specified decimal numbers.

## **Module – 4 (Advance python programming)**

- What is File function in python? What is keywords to create and write file.
- Write a Python program to read an entire text file.
- Write a Python program to append text to a file and display the text.
- Write a Python program to read first n lines of a file.
- Write a Python program to read last n lines of a file.
- Write a Python program to read a file line by line and store it into a list
- Write a Python program to read a file line by line store it into a variable.
- Write a python program to find the longest words.
- Write a Python program to count the number of lines in a text file.
- Write a Python program to count the frequency of words in a file.
- Write a Python program to write a list to a file.
- Write a Python program to copy the contents of a file to another file.
- Explain Exception handling? What is an Error in Python?
- How many except statements can a try-except block have? Name Some built-in exception classes:
- When will the else part of try-except-else be executed?
- Can one block of except statements handle multiple exception?
- When is the finally block executed?
- What happens when „1“== 1 is executed?
- How Do You Handle Exceptions With Try/Except/Finally In Python? Explain with coding snippets.
- Write python program that user to enter only odd numbers, else will raise an exception.
- What are oops concepts? Is multiple inheritance supported in java
- How to Define a Class in Python? What Is Self? Give An Example Of A Python Class



- Write a Python class named Rectangle constructed by a length and width and a method which will compute the area of a rectangle
- Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle
- Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle
- Explain Inheritance in Python with an example? What is init? Or What Is A Constructor In Python?
- What is Instantiation in terms of OOP terminology?
- What is used to check whether an object o is an instance of class A?
- What relationship is appropriate for Course and Faculty?
- What relationship is appropriate for Student and Person?

## **Module – 5 (DB and Python Framework)**

- Why Django should be used for web-development? Explain how you can create a project in Django?
- How to check installed version of django?
- Explain what does django-admin.py make messages command is used for?
- What is Django URLs? make program to create django urls
- What is a QuerySet? Write program to create a new Post object in database:
- Mention what command line can be used to load data into Django?
- Explain what does django-admin.py make messages command is used for?
- Make Django application to demonstrate following things
  - o There will be 2 modules (Admin, Product manager)
  - o Admin can add product name (ex. Product id and product name) ex. (1, Samsung), (2, Apple)...etc. Data should store in



- Product\_mst table with product id as primary key o Admin can add product subcategory details Like (Product price, product image, Product model, product Ram) data should store in Product\_sub\_cat table o Admin can get product name as foreign key from product\_mst table in product\_sub\_category\_details page Admin can view, update and delete all registered details of product manager can search product on search bar and get all details about product.

## **Module - 6 (Rest Framework)**

- Create Django REST API using below instruction.
- Create Book Model
- Title
- Author
- Isbn
- Publisher
- Using Serialize, display all data in REST API
- Also Using REST API, perfume CRUD Operation.