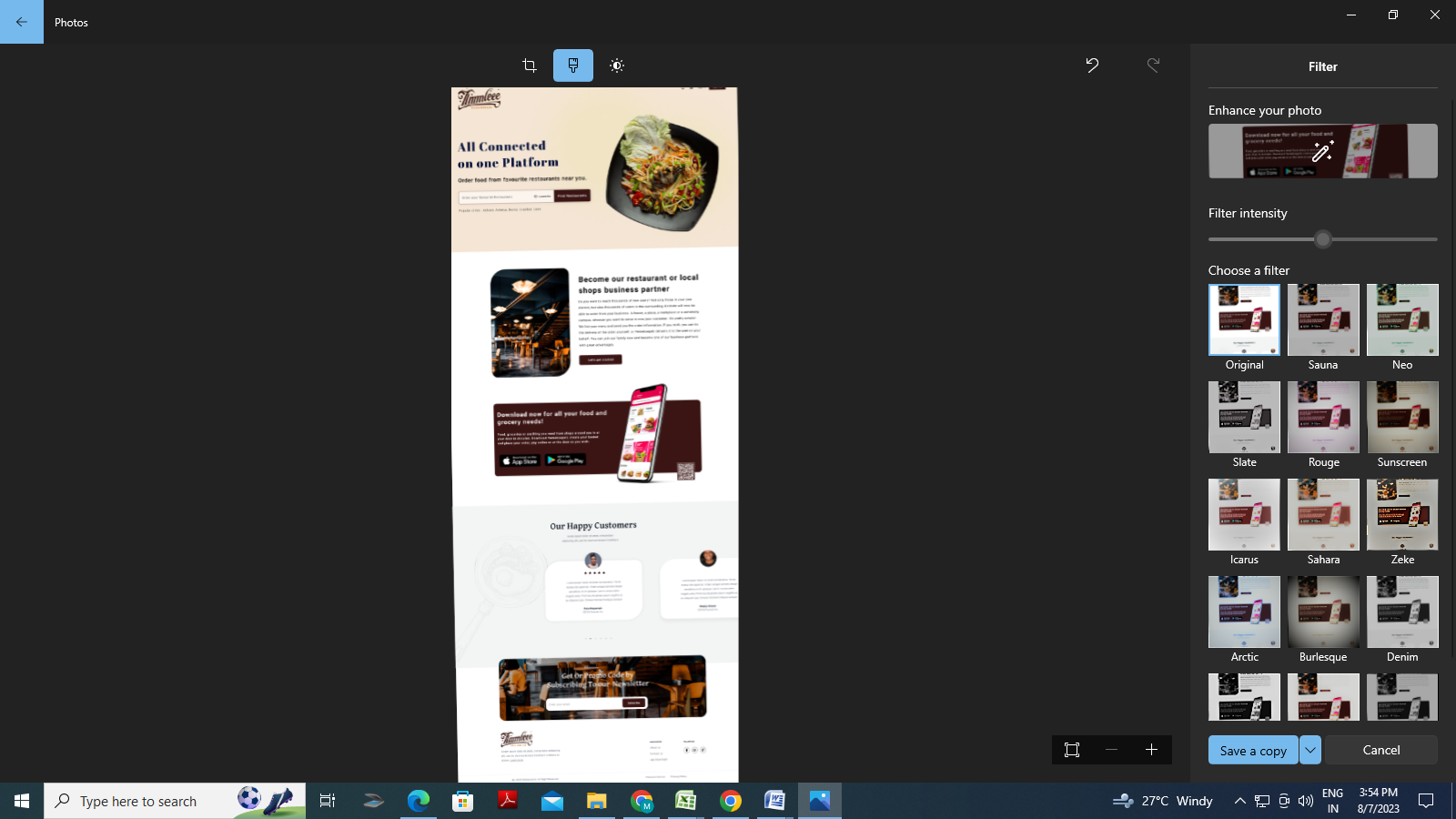
****

**Assignment - 1**

**Trainer: Mr.Sunil Jaitly Date:  
  
1. Convert this Mock-up from HTML to CSS.**



**Assignment - 2**

**Trainer: Mr. Vivek Pateria Date:**

1. Write a program to calculate multiplication and division of two numbers.  
2. Write a program to convert temperatures to and from celsius, fahrenheit.  
3. Write a function that checks whether a passed string is palindrome or not.  
4. Write a function that returns a passed string with letters in alphabetical order.  
5. Write a function takes an argument and returns the type.  
6. Write a function to calculate the value of mn where n is the exponent and m is the base. take both values from user and show result.  
7. Write a function to extract unique characters from a string.  
8. Write a function to get difference between two dates in days.  
9. Write a function to convert a string into camel case  
10. function to find a word within a string.  
11. Create a form with all type of fields and add value in this. After submit form all values should be visible in a div with all proper label and its value with good design.

 **Assignment-03**

**Trainer: Mr. Vivek Pateria Date:**

1. Create a form with following fields:  
    Name, email, state, city, Save button.
2. When state will change, city field options will be updated accordingly. Develop this example with multidimensional array.
3. After adding values in all fields and hit on save button store values in an array. show result in table format below the form.
4. Use mousehover and mouseout event to update design of save button.

 **Assignment-04**

**Trainer: Mr. Vivek Pateria Date:**

1. JavaScript program to test the first character of a string is uppercase or not  
2. Pattern that matches e-mail addresses  
3. function to check whether a given value is an valid url or not  
4. All fields are required.  
5. Both password should be same.  
6. Password must contains at least one cap letter, one number and one special character.  
7. Only alpha characters should be allowed in name field.  
8. Username should contain only alphanum and underscore.

 **Assignment-05**

**Trainer: Mr. Vivek Pateria Date:**

1. Practice all example given in slide.  
2. Create assignment#2(Event assignment) using jquery.

 **Assignment-06**

**Trainer: Mr. Vivek Pateria Date:**

1. Create slide-show with button and mouse hover event with static images path in an array.  
2. Take the css style in textboxes and apply on a div.  
3. Implement assignment #3 with jQuery form validation plugin.

 **Assignment -07**

**Trainer: Mr. Vivek Pateria Date:**

1. Create a grid and make that inline editable.  
2. Install and use owl carousel plugin.  
3. Use jquery image zoom plugin.  
4. Use fancybox plugin.

 **Assigment-08**

**Trainer: Mr. Ashish Gavshinde Date:**

1 ) Learn about DBMS Architecture  
2) Find difference between file server and database server  
3) Create database and table for learning management system   
 Table Name :- User, Course , modules, and class  
4) Create a ER diagram for the same database

 **Assignment-09**

**Trainer: Mr. Ashish Gavshinde Date:**

1. Create Customers and orders table in your database name dbclass2  
2. insert some dummy data in the table  
3. Get OrderID CustomerName form Orders table using INNER JOin  
4. Get CustomerName and OrderID from Customers table using left join  
5. Get OrderID, CustomerName form order using right join  
6. Get CustomerName, OrderID from Customers using full order join  
7. Apply GROUP BY on user id in the order table  
8. Apply GROUP BY on user id in the order table  
9. Apply all aggregate function on order total.

 **Assignment-10**

**Trainer: Mr. Ashish Gavshinde Date:**

1. Create account on [https://dummyapi.io/.](https://dummyapi.io/)  
2. Call all "comment" and "post" data api with curl.

** Assignment- 13**

**Trainer: Mr. Ashish Gavshinde Date:**

1. Display string on the page using echo and print statements. "Hello World! This string is displayed using echo/print statement".

2. Create multiple variables with different data types and display them on page using echo.

3. Write a program for performing operations on variables add, multiply, division.

4. Write a program to print table of 10 by using for loop (while, do while and for loop).

5. Write a program to calculate electricity bill of a user;

conditions - If consumption is below 100 units apply rate of Rs. 6

conditions - If consumption is above 100 units and below 250 units apply rate of Rs. 10

conditions - If consumption is above 250 units apply rate of Rs. 15 and additional consumption charge of 5% on the bill.

6. Write a program to replace word "position" with your Developer and "x" with number of year in the string "I have been working as a position for x years.".

7. Write a program to check the position of word "experience" in the string "It was a very enriching experience at the University as not only we were actively involved in practical projects"

8. Write a program to reverse the string "elgoogmorfmargorpsihtdeipoc ton evaheW"

9. Write a program to calculate factorial for 5.

10. Create a program to check the gender using switch case.

steps - Take a variable with value Male/Female.

display results as "gender selected is - "

default condition display "Select Gender".

11. Write a program for performing operations add, multiply, division using switch case.

12. Write a program to print pyramid of \* using for loop (up to 6 \* in the last row)

13. Write program to print

a)  \*

     \* \*

     \* \* \*

     \* \* \* \*

     \* \* \* \* \*

     \* \* \* \* \* \*

b) \* \* \* \* \* \*

    \* \* \* \* \*

    \* \* \* \*

    \* \* \*

    \* \*

    \*

c)  \*

    \* \*

    \* \* \*

    \* \* \* \*

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**Trainer: Date:   
  
 Assignment - 13**

1. Create a program to display chess board using loops. (8 X 8)

2. Write a function to check if number is prime

3. Write a function to calculate factorial of number 7.

4. Write a function to change the string to uppercase and lowercase. Default to lowercase.

5. Create a calculator to perform addition, subtraction, multiplication and division. Create functions for each action separately.

6. Create a table to display users data (first name, last name, dob, email) using foreach, use associative array.

7. Create a table to display users data (email, username, [multiple phone numbers]). A user can have 1 or more phone numbers, Display them in one column.

8. Write program to sort array.

9. Write a program and take 2 arrays.

a) State - ['mp' => MP, 'raj' => Rajasthan, 'maha' => Maharashtra, 'guj' => Gujrat];

b) Cities - ['mp' => ['Indore', 'Dewas', 'Ujjain'],

             'maha' => ['Mumbai', 'Pune', 'Nashik', 'Nagpur'],

             'raj' => ['Jaipur', 'Udaipur'],

             'guj' => ['Ahmedabad', 'Surat', 'Vadodara']];

c) Display the data in table by accessing the array using foreach loop. In this way -

State | City List

10. Write a program to merge 2 arrays.

11. Write a program to show example for array\_merge\_recursive.

****

**Trainer: Date:   
  
 Assignment - 14**

1. Create a form with following fields, submit the form data using GET method and display the post data on the same page below the form with proper labels for the field value and remove whitespaces from the data posted.

a) Fields - First Name, Last Name, Gender (radio buttons), Email and Comment (textarea)

2. Create a registration form and submit the data on another page with POST method to display the post data in a well informatic way.

3. Create a login form and submit it using POST method on same page and display error message above the form for required fields.

****

**Trainer: Date:   
  
 Assignment - 15**

1. Write a PHP class to calculate the factorial of an integer.

2. Write a PHP Calculator class which will accept two values as arguments, then add them, subtract them, multiply them together, or divide them on request.

3. Write a PHP class to print table any number passed from frontend.

4. Write a PHP class to calculate electricity bill of a user;

conditions - If consumption is below 100 units apply rate of Rs. 6

conditions - If consumption is above 100 units and below 250 units apply rate of Rs. 10

conditions - If consumption is above 250 units apply rate of Rs. 15 and additional consumption charge of 5% on the bill.

Need to pass the consumption value from frontend form.

5. Write a PHP class to replace word "position" with your Developer and "x" with number of year in the string "I have been working as a position for x years.".

6. Write a PHP class to check the position of word "experience" in the string "It was a very enriching experience at the University as not only we were actively involved in practical projects"

8. Write a PHP class to reverse the string "elgoogmorfmargorpsihtdeipoc ton evaheW"

9. Write a PHP class to calculate factorial for 5.

10. Write a PHP class to get sorted array values in ascending and descending order. Create a single functions for both operations and pass parameter to identify the operation.

Sample array: array(11, -2, 4, 35, 0, 8, -9)

****

**Trainer: Date:   
  
 Assignment - 16**

1. Create a registration form with following fields.

first name, last name, email, password, confirm password, contract number

All fields are required and also apply all appropriate validation on all fields from client side and server side both.

Register user with jQuery Ajax post method and after successful registration redirect user on thank you page.

2. Create login form with username and password.

Submit this form with jQuery Ajax and after successful login redirect user to "My Account" page.

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**Trainer: Date:   
  
 Assignment - 17**

1. Create a registration form using bootstrap and use all types of inputs (text, select dropdown, radio, checkbox, file etc.). Submit the form via HTTP Post method.  
  
2. Create a simple form to take input from user in number. Create a service class to generate table of the given number. Use this class in controller as dependency injection. Pass the output to view and return to screen.

****

**Trainer: Date:   
  
 Assignment - 17**

1. What are the important files which are required to create a module?
2. What do registration.php and module.xml files?
3. Create a module with these details:  
   Vendor Folder: Mangoit  
   Module Folder: BloggerPost
4. What is Routing and how does it work?
5. Create a route for frontend and backend with this details:  
   Route name: mangoit (for both frontend and backend)

1. Create account on [https://dummyapi.io/.](https://dummyapi.io/)  
2. Call all "comment" and "post" data api with curl.

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1. **Trainer: Date:   
     
    Assignment - 18**
2. What is the installSchema class in Magento and what it does do?
3. What is the installData class in Magento and what it does do?
4. What is the upgradeSchema class in Magento and what it does do?
5. What is the upgradeData class in Magento and what it does do?
6. What is the db\_schema.xml file in Magento and what it does do?
7. Perform these action(s) using installSchema class:  
   A. Create table: mit\_blogger\_categories (id(int primary), category\_code(char 64), category\_name(char 64), category\_description(char 64), created\_at(timestamp), updated\_at(timestamp))  
   B. Update table: change category\_code and category\_name type from ‘char’ to ‘varchar’.  
   C. Update table: change category\_description type from ‘char’ to ‘varchar’ and change its length to 64K or more than 1000 length.  
   D. Delete a column. (category\_code)
8. Perform these action(s) using installData class:  
   A. Add new data in the ‘mit\_blogger\_categories’ table.  
   B. Update existing data of a row in the ‘mit\_blogger\_categories’ table.  
   C. Delete existing data of a row in the ‘mit\_blogger\_categories’ table.  
   D. Add multiple new data (4-5 Rows) in the ‘mit\_blogger\_categories’ table.  
   E. Update multiple existing data (4-5 Rows) in the ‘mit\_blogger\_categories’ table.  
   F. Delete existing row data (4-5 Rows) of the ‘mit\_blogger\_categories’ table.
9. Perform these action(s) using upgradeSchema class:  
   A. Create table: mit\_blogger\_post (`id` int(10) NOT NULL AUTO\_INCREMENT PRIMARY KEY, `category\_id` int(10), `title` varchar(255), `content` text, `aurthor\_firstname` varchar(64), `aurthor\_lastname` varchar(64), `created\_at`, `updated\_at`)
10. Perform these action(s) using upgradeData class:  
    A. Add new data in the ‘mit\_blogger\_post’ table.  
    B. Update existing data of a row in the ‘mit\_blogger\_post’ table.  
    C. Delete existing data of a row in the ‘mit\_blogger\_post’ table.  
    D. Add multiple new data (4-5 Rows) in the ‘mit\_blogger\_post’ table.  
    E. Update multiple existing data (4-5 Rows) in the ‘mit\_blogger\_post’ table.  
    F. Delete existing row data (4-5 Rows) of the ‘mit\_blogger\_post’ table.

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**Trainer: Date:   
  
 Assignment - 19**

1. What is the Factory Class?
2. What is the use of Factory Class?
3. Create one Block file and use FactoryClass of the model and get collection of data through Factory Class?
4. What is Plugin and What is the use of Plugin in Magento?
5. Create a Plugin to set Prefix with the Product Name?
6. Create a Plugin to set Suffix with the Category Name?

****

1. **Trainer: Date:   
     
    Assignment - 20**
2. What is Observer and Preference?
3. Difference between Plugin and Observer?
4. Create add product to cart observer to save data into custom table?
5. Create observer after place an order and save order data into custom table?
6. Create a Plugin to set Prefix with the Product Name?
7. Create a Plugin to set Suffix with the Category Name?
8. Create Custom event into custom module like post save?

**   
 Trainer: Date:   
  
 Assignment - 21**

Process of creation of custom theme | Verbally

1. Add a custom CSS file for a custom theme
2. Add custom JS file for custom theme
3. Override a template file of any module in a custom theme and show a custom message
4. Override a JS file of any module in the custom theme and add console.log("-- overridden ---")
5. What is the role of view.xml in the custom theme? Explain.
6. Install any third-party theme.
7. Create a child theme of the installed third-party theme.
8. Add a custom CSS file for a child theme of a third-party theme
9. Add a custom JS file for a child theme of a third-party theme
10. Override a template file of any module in a third-party child theme and show a custom message
11. Override a JS file of any module in a third-party child theme and add console.log("-- overridden ---")

**   
Trainer: Date:   
  
 Assignment – 22 - 4**

Create an admin Menu.

1. Add icon in Menu.
2. Add Menu and sub-menu.
3. Add menu under the existing menu.
4. What is the ACL and what does it do? Prepare verbally.
5. Create an admin user with restricted permission/access.
6. Show created menu only for the main admin user and hides it from the created admin user.
7. Provide access to the created menu to the new admin user that you have created previously.
8. What is system.xml? What does it do? Prepare verbally.
9. Create tab “Mangoit Extension”. Create section “Module Configuration”. Create Group “General Configuration”.
10. Create a “Yes/No” type field with the label “Enable Module”. Add a comment with it like “if its value is set to “yes” then all features of this module will be enabled.”
11. Create a text field with the label “Show Message” and add a comment. It should visible only when “Enable Module” is set to yes/active. It should have validation (Alphabet with space) (No numeric and other types of text/char acceptable)
12. Create a drop-down field with the label “Default Gender”.  It should visible only when “Enable Module” is set to yes/active. The dropdown option should be:  
    — select —  
    Male  
    Female  
    Transgender  
    Not want to specify  
    This field should also have a comment.
13. Create a dropdown field with the label “Default Customer Type”. It should visible only when “Enable Module” is set to yes/active. This field should also have a comment.  
    But it should contain the option of Magento’s default customer types like Retailers, Wholesalers, and others. You need to fetch it from Magento and prepare the option of the drop-down.
14. Create a multi-select field with the label “Default categories”. It should visible only when “Enable Module” is set to yes/active. This field should also have a comment.  
    But it should contain the option of Magento’s categories name like Men, Women, and others. You need to fetch it from Magento and prepare the option of the Multi-Select.
15. Create a Textarea field with the label “Default Content”. It should visible only when “Enable Module” is set to yes/active. This field should also have a comment. It should have validation (Alphabet with space) (No numeric and other types of text/char acceptable)
16. Create a Textarea field with the label “Default Content”. It should visible only when “Enable Module” is set to yes/active. This field should also have a comment. It should have validation (Alphabet with space) (No numeric and other types of text/char acceptable)  
      
    Create a database table "supplier\_info".   
      
    id (int), supplier\_firstname (varchar), supplier\_lastname(varchar), supplier\_email(varchar), supplier\_mobile(varchar), supplier\_trustable(boolean), supplier\_gender(int), supplier\_categories (varchar),  supplier\_country (int), supplier\_state (int).  
      
    Add its model, resource model, and collection class.  
      
    Add Menu "Supplier" in the admin. Add submenu "Suppliers Data".  
      
    Sub menu "Suppliers Data" will show an Admin UI grid with the data of the "supplier\_info" table.  
      
    Admin UI Grid should have all these features: Full-text search, filters, "Add new supplier" button, mass action for delete, on click sort by column.   
      
    Create supplier form by Admin UI. Fields will be:  
       First Name (text field with validation)  
       Last Name (text field with validation)  
       Email (text field with validation)  
       Mobile Number (text field with validation)  
      Gender (dropdown with these options) [''=> '-- select --', '0'=> 'Other', '1'=> 'Male', '2'=> 'Female']  
       Trustable (dropdown with these options) [''=> '-- select --', '0'=> 'No', '1'=> 'Yes']  
       Trustable (dropdown with these options) [''=> '-- select --', '0'=> 'No', '1'=> 'Yes']  
       Assigned Categories: (Multiselect field with data of Magento's existing categories)  
       Country: (Dropdown field with data of Magento's existing Country)  
       City: (Dropdown field with data of Magento's existing City of the selected Country)  
      
       Button: Save and edit, Save and Reset  
      
    Save action should dispatch two events. before\_supplier\_save and after\_supplier\_save.

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1. **Trainer: Date:   
     
    Assignment - 23**
2. Enable/disable the cache by command.
3. Difference between cache clean and flush.
4. What are the types of sessions available in Magento?
5. Create a custom session “mis\_custom\_text” and set the value.
6. Fetch the created session “mis\_custom\_text” and check if it is empty or not. If it is not empty then show its data and if it is empty then show the default text.
7. What are multistore, multi-website, and store-views?
8. Create two store views with English (English language and USD currency) & German (German language and Euro currency)
9. Create two stores: North America and Europe and assign storeview or create a new one.
10. Translate the site content into configured language by CSV file and inline translation.
11. Configure CMS page or block based on the store view. If the store view is german then content should show in german and if the store view is English then it should show in English.

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**Trainer: Date:   
  
 Assignment -24 - 5**

1. What is Knockout JS?
2. What is difference between KO and JQuery?
3. Why use data-binding?
4. Create a clock on HelloWorld page using KO.
5. Create a KO module to increate/decrement qty on product detail page qty box.

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**Trainer: Date:   
  
 Assignment - 25**

Magento Rest Api and Custom API creation

1. What is RESTAPI?
2. What is GraphQL?
3. Difference between RESTAPI and Graphql?
4. Create a custom REST API Blog post module.
5. Create a graphql query/mutation for blog post module.

****

**Trainer: Date:   
  
 Assignment - 26**

1. Install cron job on Magento directory.
2. Create a cronjob that can log any message into the system.log file. Like “ Customcron job is running.”
3. Create a custom database table customer\_order\_relation. Add columns: id(‘int’), customer\_id(int), order\_placed (boolean), total\_order\_placed(int), total\_spent(float).  
   After creating its model, resource model, and collection create a custom cronjob that can fetch the order and customer data and add values to the new table.   
     
   Each customer id has its own row. If it does not exist then add else update the existing one.   
     
   Id will be auto increment,   
   customer\_id will be customer id,   
   order\_placed will contain 0 or 1 means if a customer has placed an order then 1 otherwise 0,  
   Total\_order\_placed will contain the number of orders placed by the customer. (if no order is placed then 0 )  
   Total\_spent will contain the number of orders that the customer has placed yet (Do not include canceled orders)  
     
   Create a table grid to show this data. Menu inside Sale => Order Data Customer wise (sub-menu)

Assignment – 6

1. Create two system configuration fields (text and textarea) that will have this information:  
   **Text field:**  
   Label: Product Amount  
   Comment: Enter product amount  
   Validation: only numeric but not more than 3 digits.  
     
   **Text area:**  
   Label: Free shipping message on Minicart  
   Comment: This message will be displayed in a mini-cart with each eligible product.  
   Validation: only alphabet with space  
     
   Task: When a logged-in customer tries to add a  product which is having price more than “Configured product amount” then configured free shipping message should appear in the mini cart with that product.
2. Continuing the above task this message should appear on the shopping cart page too.
3. On the checkout page. Add a text area field “Order comment”. It should have validation that text content should not be more than 100 in length. It should save with the order and show this order comment on the order details page of the admin.