Department of Computer Science

Final Term Lab Task Spring 20-21

Course Title	ADVANCED PROGRAMMING IN WEB TECHNOLOGY	Section	B

Title:

Company – Client Management System

Short Description:

Role Name	Description
Admin	An admin can login to the system and manage customers, vendors and others company stuffs. He can also check attendances, manage day and night shifts, salary of the stuffs along with searching, adding, editing and removing them from the system. An admin can change web pages static contents form pages like about us, contact us or blogs by uploading contents or editing them.
Customer	The customers can register to the system and make monetary transactions, track transaction log, get reminder of future transaction date and time, connect to their respective bank accounts. They can manage their respective accounts and track flow of money, account details, spent money, earned money, balance etc. They can make payments for product purchase. Purchase products based on company offering. View purchase log.
Accountant	An accountant can login to the system and check the flow of money, expenditure of every department with details, request funding from every department, check available fund, issue money for spending to any department, account details of all the customers and company stuffs.
Sales and Marketing Person	Sales person can sell products on physical store, virtual store and import those data to the system. They can manage current sales, plan for upcoming sales and view report of sales. They can also offer sales using e-marketing to specific customers for specific or a segmented products or services. They can manage product and pricing as well as track behavior of customers towards specific products or services.
Business Partner	
Vendors	

Modules:

Login Module (M1)		
Function	Description	Database
M1F1	There will be a login page with 2 input fields one will take the users email address and another will take input of the user’s password. There will also be a login button which will be used to submit form data for successful login to the system using a post request.	N/A
M1F2	A backend form validation will occur which will validate the user’s credentials submitted if they are secure to pass to the database for validation. Validations includes: • Valid email syntax • Email length < 50 characters • Null email and password field validation. • Password length min. 8 characters and max. 20 characters. • Password contains alphanumeric characters. If any invalid input is given then error message should be shown to the view page accordingly.	N/A
M1F3	Upon passing the validation steps the user must be searched by the email address in the database and get the users email, username and password. Then the password must be checked with the user submitted password if it matches with the database password for validation. If it matches then necessary credentials such as user type, user name should be saved in session of cookie storage and redirected to the home page of the user using get request. Upon not finding the user form database or password mismatch an error message must be shown to the view.	Search from database table “Customers”, “Admins”, “Vendors”, “Accountants” and column “email” and return “password”, “user_name”, “user_type” fields.

Logout Module (M2)		
Function	Description	Database
M2F1	User logged into the system can press a log out button which will redirect them to a logout url by making a get request that clears the previous session or cookie credentials of the user which logs him out of the system and takes him to the login view page.	N/A

Registration Module (M3)		
Function	Description	Database
M3F1	Users can register the system from a registration page where there will be some input fields including full name, user name, email, password, confirm password, address, company name, phone number, city, country. Users need to fillup the form and make a post request with the help of a button named sign up.	N/A
M3F2	Upon submission of the registration post request a backend validation will take place that validates if all the inputs are valid and match the database data and types. Validations include: • Full name length must be between 3 to 30 characters. • Full name must be alphabetic • Email length must be between 10 to 50 characters. • Email address should be a valid email syntax. • City, country, company name length must be between 3 to 20 characters. • Phone number should be integer type and length should be min. 11 digit and max. 15 digits. • Password must be between 8 to 20 characters and it must be alphanumeric. • Password and Confirm Password field must match their input data. • Full name, email, user name, password, confirm password, phone number. cannot be empty. For any validation error an error message will be shown and redirected to M3F1. If user name or email address is already registered to the database then it will not save the user and its data to the database and show an error message redirecting to M3F1. For successful validation the user will be recorded to the database and redirected to M1F1 with a registration completion message.	Match data from database table "Customers" and column "email", "user_name". Store full_name = full_name, user_name=user_name, email=email, password=password, city=city, country=country, phone=phone, company_name=company_name, user_type="active", date_added="current_date", last_updated="null" to respective columns of table "Customers".

Sales Chanel Module (M5)		
Functions	Descriptions	Database
M5F1	A sales channel should be developed in the system in the route “system/sales” where multiple types of channels would be present. In this view page there would be a dashboard showing number of products sold for current date and last seven days for each of the below channels and some buttons to navigate to various channels such as: • Physical Store: “system/sales/physical_store” (GET Request) • Social Media: “system/sales/social_media” (GET Request) • Ecommerce Web App: “system/sales/ecommerce” (GET Request)	Select count of products sold from table “physical_store_channel” for the current date and for the last seven days. Select count of products sold from table “social_media_channel” for the current date and last seven days. Select count of products sold from table “ecommerce_channel” for the current date and last seven days.
M5F2	On the physical store sales view page on route “system/sales/physical_store” there would be a dashboard which shows number of items sold this current date, last seven days, most sold item name, average sales amount on current month. There should be a button named “View Sales Log” which redirect to “system/sales/physical_store/sales_log”. There should also be a form to sell products to customers with the fields “Customer Name”, “Address”, “Phone” of customers which will be added to the fields coming from the POS machine such as “Product Id”, “Product Name”, “Unit Price”. These all fields will be added with fields called “Quantity” and “Total Price”. These above-mentioned fields are on the same form. A backend validation would take place to validate the followings:	Select count of products sold from table “physical_store_channel” for the current date and last seven days. Select avg. sales amount of current month from the table “physical_store_channel”. Select max. sold item name from the table “physical_store_channel” Store into database table “physical_store_channel” the data “customer_name” = “customer_name”, “address” = “address”, “phone” = “phone”, “product_id” =” product_id”, “product_name”=”product_name”, “unit_price”=”unit_price”, “quantity”=”quantity”, “total_price”=”total_price”,

	• Customer Name, Address, Phone, Product Name, Unit Price, Quantity, Total Price should not be empty. • Max. quantity of items should be 20 and it cannot be equal to or less than zero. • Total Price cannot be equal to or less than zero. • Full Name must be alphabetic and length must be between 3 to 30 characters. • Address could be alphanumeric with special characters and the length must be between 3 to 50 characters. • Phone number should be integer digits with min. 11 digit to max. 15 digits. • Unit price cannot be zero or less. If all the validation is successful then it would store the record to the data to table “physical_store_channel” and give success message by redirecting to “system/sales/physical_store” or upon any validation error or database record error it would show appropriate error message.	“date_sold”=”current_date”, “payment_type”=”cash/card/onine”, “status” =” sold”.
M5F3	On M5F3 there was a button named “View Sales Log” which redirected to “system/sales/physical_store/sales_log”. In this above route view page, there should be a report of sold items log of current month which could be downloaded in pdf or excel format with a button “Download Sales Report”. There should be also another log of pending sales under the sold items log which can also be downloaded in pdf or excel format with a button named “Download Pending Log”. A go back button will be there to navigate back to the sales page “system/sales/physical_store” using “GET” request. Another form will be there in this view page which will have a file picker that uploads an excel file containing sales data to store into	Select all data from table “physical_store_channel” where “status” = “sold”. Select all data from table “physical_store_channel” where “status” = “pending”. Store into database table “physical_store_channel” the data “customer_name” = “customer_name”, “address” = “address”, “phone” = “phone”, “product_id” =” product_id”, “product_name”=”product_name”, “unit_price”=”unit_price”, “quantity”=”quantity”, “total_price”=”total_price”, “date_sold”=”current_date”, “payment_type”=”cash/card/onine”, “status” =” sold/pending” that is pursed from excel file.

	database. The excel data and columns should match the database sales column “pending_store_channel”. A button called “Load Sales Data” button is placed under it which makes a post request to “system/sales/physical_store/upload_sales-data”. It then goes under a backend validation to check: • File type should be .xlsx, .xls. • File size must not exceed 5MB. • File should not be empty. The file data then parsed from excel file to store into “physical_store_channel” table. Upon successful storing it will redirect to “system/sales/physical_store” with success message and upon failure it would show error message.	