

## **WEEK 2**

I.a) BookMyShow is an online movie ticket booking application that helps its user to book movie tickets by logging in. Users can find their movie from the listings. After booking is confirm, the details are sent to user. Identify and write the user stories for this application. [June/July 2023] -12 marks

a) Registration

### **1. Sign-up:**

As an unauthorized user, I want to sign up for the BookMyShow application through a sign-up form, so that I can access to movies list.

#### **Acceptance Criteria:**

1. While signing up-Use Name, Username, Email, and Password and Confirm Password.
2. If sign up is successful, it will get automatically logged in.
3. If I sign up with an incorrect detail which are specified in step I, I will receive an error message for incorrect information.
4. If we are trying to sign up with an existing email address, we will receive an error message saying "email exists."

### **2. Login**

As an authorized user, I want to log in for BookMyShow application, so that I can have access to the application.

#### **Acceptance Criteria:**

1. While logging in, Username and password are required.
2. After successful log in, it will be redirected to the main page.
3. If we are trying to login with incorrect username or password, then error message will be displayed as "invalid login".

### **3. Searching a movie**

As an authorized user, I want to search for a movie in BookMyShow application, so that I can book a movie ticket in a specific theatre.

### Acceptance Criteria:

1. While searching, valid theatre should be specified.
2. Checking for availability of a movie ticket on specific date always should be current date and ahead of the current date.

### 4.Booking ticket

As an authorized user, I want to book a ticket in BookMyShow application, so that I can reserve the seat in a specific theatre and date.

### Acceptance Criteria:

1. While booking, accommodation should be allotted according to the room size.
2. One should select the valid payment method based on the price of reserved room.
3. After successful payment one should get the booking details to registered mobile number and e-mail id.

### 5 Logout

As an authorized user, I want to log out of application, so that I can prevent unauthorized access of my profile.

### Acceptance Criteria:

When I log out of my account, I will be redirected to the log-in page.

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I. b) Write test cases for the above application. [June/July 2023]

-8 marks

### Test Cases for the Login Page:

- Verify that the login page loads correctly and is accessible from the website's homepage.
- Check that the login credentials are case sensitive and the appropriate message is displayed if the user enters incorrect information.
- Verify that "Forgot Password" option works intended, allowing users to reset their password in case they forget it.
- Ensure that the system limits the number of unsuccessful login attempts to prevent brute-force attacks.

### **Test Cases for the Registration Page:**

- Verify that the registration page is accessible from the website's homepage and loads correctly.
- Check that the system validates the user's information, such as email address, phone number, and password complexity.
- Ensure that the system does not allow duplicate email addresses or phone numbers.
- Verify that the user receives an email or SMS confirmation after registering.

### **Test Cases for the Ticket Booking Page:**

- Ensure that the ticket booking page displays accurate information about the event, such as the date, time, and venue.
- Check that the system limits the number of tickets a user can purchase to prevent scalping.
- Verify that the system displays the total cost of the ticket purchase, including any taxes and fees.
- Ensure that the system accepts multiple payment options, such as credit/debit cards, PayPal, and mobile wallets.

### **Test Cases for the Payment Gateway:**

- Verify that the payment gateway is secure and encrypts user information to prevent fraud.
- Check that the payment gateway accepts different currencies and displays the correct conversion rates.
- Ensure that the payment gateway sends confirmation email or SMS to the user after the transaction is complete.

By following these test cases, you can ensure that your online ticket booking system is reliable and user-friendly. Thorough testing will help you identify and fix any issues before your system goes live, ensuring a positive experience for your customers.

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2. a) Swiggy is an online food ordering application that helps its users to buy variety of authentic food items. This application allows users to log in for ordering food. Users can search for their favourite food based on rating or price. Users can select the items and add to the cart. Once the selection made go to payment page and make payment, write the user stories for this application. [June/July 2023]

### **I. Sign-up:**

As a foodie, I want to sign up for Swiggy application through a new user form, so that I can get access to order food of my favourite.

#### **Acceptance Criteria:**

- While signing up-Valid Phone Number/Email Id and OTP/Password.
- If sign up is successful, it will get automatically logged in.
- If I am trying to sign up with an invalid phone number/Email Id, I will receive an error message to enter a valid information.
- If we are trying to sign up with an existing phone number/Email Id, we will receive an error message saying “you are already registered.”

### **2. Login**

As an authorized customer, I want to login for application, so that I can have access to the application for searching and ordering food.

#### **Acceptance Criteria:**

- While logging in, Phone number/Email Id and OTP/Password are required.
- After successful log in, it will be redirected to the main page.
- If we are trying to login with incorrect mobile number/Email Id or OTP/Password, then error message will be displayed as “invalid credentials”.

### **3. Order Creation**

- ❖ As a customer, I should be able to browse through the menu and look at various food options and restaurants and along with their price.
- ❖ As a customer, I should be able to select items from the menu and add them to cart.
- ❖ As a customer, I should have cart containing all the chosen items.
- ❖ As a customer, I should be able to remove items from my cart or increase item count.
- ❖ As a customer, I should be able to cancel my entire order.
- ❖ As a customer, I should be able to view the items bill for my order along with price of each item.

- ❖ As a customer, I should be able to see the listing of restaurants selling food items.

**Acceptance Criteria:**

- See a thumbnail image for each product
- Click to view details for product
- Add to cart from detail page
- Search for a item
- View food item by category

#### **4.Order completion**

As a customer, I should be able to provide feedback for service and the food.

**Acceptance Criteria:**

All the feedbacks are recorded in database for further improvement.

#### **5. Log Out**

As a customer, I want to log out of application, so that I can prevent unauthorized access of my profile.

**Acceptance Criteria:**

When I log out of my account, I will be redirected to the log-in page.

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**2. b) Write test cases for the above application. [June/July 2023] -8 marks**

#### **Test Cases for Swiggy application Login Page**

- Verify that when user open online food ordering application then it should be asked for the user's location.
- Verify that user is able to login in the application without registration or not.
- Verify that user is able to sign up or login with mobile number or not.
- Verify that user is able to sign up or login with email address or not.
- Verify that user is able to redirect on home page screen without login or not.

#### **Test Cases for Online Food Ordering System Search Functionality**

- Verify that if user enters valid food name, then search result should be displayed.

- Verify that if user enters valid restaurant name, then search result should be displayed.
- Verify that if user search by valid food name, then relevant food search result should be displayed on the screen.
- Verify that if user search by valid restaurant name, then relevant food search result should be displayed on the screen.

### **Test Cases for Ordering Page**

- Verify that the restaurant name with rating should be displayed clearly.
- Verify that list of the cuisines should be displayed under the restaurant names.
- Verify that user should be able to see veg and non veg category on the ordering page or not.
- Verify that user is able to see billing discount on the order page or not.
- Verify that user is able to see total numbers of reviews on the ordering page or not.
- Verify that approximate time of the delivery of food is displayed or not.
- Verify that user is able to add food item into the cart or not.
- Verify that add on food items option is displayed on the page or not.
- Verify that user is able to see items with its price or not.

### **Test Cases for Cart Checkout Page**

- Verify that user should be able to see added items into the cart.
  - Verify that user is able to increase the quantity of the food items from the cart page or not.
  - Verify that user should be able to delete food items from the cart page.
  - Verify that food price is displayed for the food items or not.
  - Verify that user is able to edit delivery address or not.
  - Verify that user is able to change delivery address or not.
  - Verify that user is able to select payment method on cart checkout page. Verify that user is able to place order from the cart checkout page or not.
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**3. How to convert monolithic application to microservice architecture? Explain with an example. [June/July 2023] -10 marks**

**Scheme of Valuation:** Conversion steps mentioned (2 marks) + Steps explanation (6 marks) + Example (2 marks) = 10 marks

The typical process to migrate from a monolithic system to a microservices based system involves the following steps:

Step 1: Identify the Logical Component

Step 2: Flatten or Refractor Components

Step 3: Identify the Dependencies of the Components

Step 4: Components Group Identification

Step 5: APIs for Remote User Interface

Step 6: Migrate the Components to Microservice

Step 7: Migrate Microservice to Microservice

Step 8: Deployment and Testing

### **Step 1: Identify the Logical Component**

There are three major components with the data used in the system:

1. Data objects
2. Data actions
3. Job to perform and use cases

The logical construct of the data that is being used in the system is data objects. The data actions are the commands used on one or more data objects, possibly on different types of data, to perform a task. Whereas the job to perform is the function called to perform a task on the available data.

### **Step 2: Flatten or Refractor Components**

Once all the modules and components are uniquely identified and categorized, the businesses must organize these groups internally. The components that have similar functionalities must be addressed before the implementation of microservice architecture. In the end, there must be one microservice to perform a particular task.

### Step 3: Identify the Dependencies of the Components

Upon identifying and reorganizing the components for migrating from a monolithic application to microservices, the system architects must identify the dependencies between the components.

### Step 4: Components Group Identification

After the components and dependencies are identified, the architects must focus on grouping the components into cohesive groups that can transform into microservices or at least microservices.

### Step 5: APIs for Remote User Interface

This step aims to develop a unified API through which the user interfaces with the system and manipulates the data. Hence, it should be designed and developed to ensure the existing data interactions are not altered significantly.

### Step 6: Migrate the Components to Microservice

The goal of this step is to move the components to separate projects and create separate deployments. At a minimum, each microservice should be independently deployable from within the system's continuous integration (CI) and continuous deployment (CD) pipeline.

### Step 7: Migrate Microservice to Microservice

Once the components are migrated to microservice, grouped and organized, the system architects must migrate these components of a monolithic application to microservice from microservice.

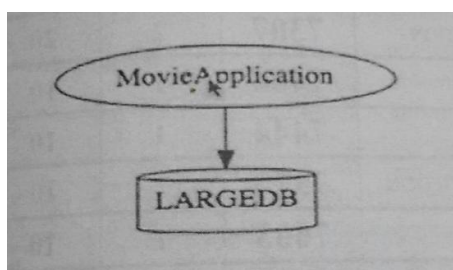
### Step 8: Deployment and Testing

Once a microservice or microservice is ready for deployment, the next step is integration testing and deployment. The monolithic system must be configured to use the new service for its data needs instead of its legacy data store.

### Example: Movie application Monolith Architecture

- Monolith Architecture:

A monolithic movie application looks as follows:



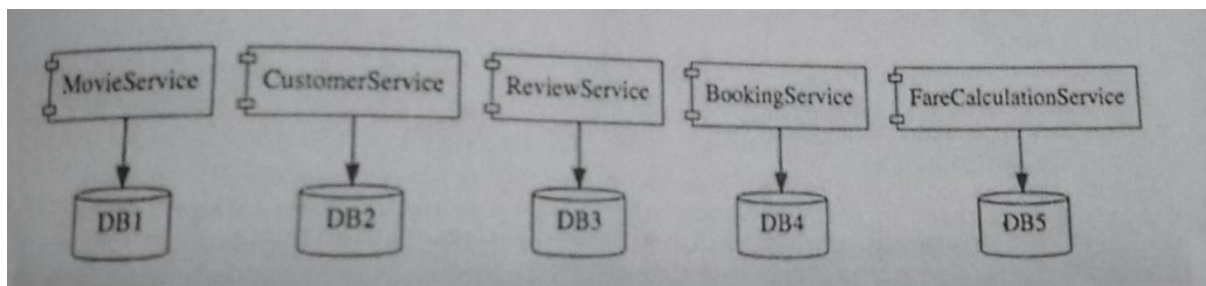


In the above figure , the entire movie application uses the same LARGEDB database to maintain the customer's booking status throughout the buying journey. Here we have a large application talking to a large database.

- Microservices Architecture

In microservices architectures, instead of building a large application, we build a number of smaller microservices.

This is how we would split up the monolith Movie Application into microservice application:



In the above figure, a separate database is developed for every microservices. This implementation helps you ensure that you don't have too many fine-grained services that call each other frequently.

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4.a) Hotel Booking is an online Hotel room booking application that helps the users to book a room for staying at particular place across Karnataka. This application allows users to log in for booking a room. Users can search for the room at a hotel for a specific location. Once found, user can check the availability of a room for specific dates. Users can book hotel for required date. Once booked, user can get the booking details. Identify and write the user stories for this application.

[Feb/March 2023]

-12 marks

Registration

**I. Sign-up:**

As an unauthorized user, I want to sign up for the HotelBooking application through a sign-up form, so that I can access to book a room.

### **Acceptance Criteria:**

- ◆ While signing up- Username, Email, and Password and Confirm Password
- ◆ If sign up is successful, it will get automatically logged in.
- ◆ I sign up with an incorrect detail which are specified in step 1, I will receive an error message for incorrect information.
- ◆ If we are trying to sign up with an existing email address, we will receive an error message saying “email exists.”

## **2. Login**

As an authorized user, I want to log in for Hotel Booking application, so that I can have access to the application

### **Acceptance Criteria:**

- ◆ While logging in. Username and password are required. After successful log in, it will be redirected to the main page.
- ◆ If we are trying to login with incorrect username or password, then error message will be displayed as “invalid login”.

## **3. Searching a Room**

As an authorized user, I want to search for a room in Hotel Booking application, so that I can book a room in a specific location.

### **Acceptance Criteria:**

- ◆ While searching, valid location should be specified.
- ◆ Checking for a room at specific date always should be current date and ahead of the current date.

## **4. Booking Room**

As an authorized user, I want to book a room in Hotel Booking application, so that I can reserve the rooms in a specific location and date.

### **Acceptance Criteria:**

- ◆ While booking, accommodation should be allotted according to the room size.
- ◆ One should select the valid payment method based on the price of reserved room.

- ◆ After successful payment, one should get the booking details to registered mobile number and E-mail id.

## 5. Log out

As an authorized user, I want to log out of Hotel Booking application, so that I can prevent unauthorized access of my profile.

### Acceptance Criteria:

When I log out of my account, I will be redirected to the log-in page.

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### 4.b) Write test cases for the above application.

-8 marks

- ◆ User is able to access the Hotel Booking Home page.
- ◆ Validate the hotel booking Home page is rendered correctly for **desktop** as per the design specifications.
- ◆ Validate the hotel booking Home page is rendered correctly for a **mobile** device as per the design specifications.
- ◆ Validate the hotel booking Home page is rendered correctly for a **tab** as per the design specifications.
- ◆ Validate hotel search fields are visible on screen
- ◆ User searches for a holiday to any place across Karnataka for a family of 2 adults and children and makes a payment (End to End Test).
- ◆ User makes a successful payment for their hotel booking
- ◆ User makes an unsuccessful payment of their hotel booking.
- ◆ Hotel Room Unavailability - User searches for dates that are unavailable and system recommends alternative dates or room types.
- ◆ User wants to amend an existing booking by adding an additional feature (e.g. Increase length of stay/adding breakfast).
- ◆ User wants to verify the itinerary and print a paper version.
- ◆ User cancels their booking and system refunds money-Test Refund Conditions
- ◆ User cancels their booking and system does NOT refund money-Test Refund Conditions
- ◆ User wants to make a group booking

- ◆ User wants to validate booking page displays correct booking data-Visual check
  - ◆ Confirm Payment Page is displayed when user selects “Make Payment”.
  - ◆ End-to-End test of Hotel Booking Engine.
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5.a) Flipkart is an online shopping application that helps its users to buy variety of authentic products. This application allows users to log in for buying products. Users can search for a product, sort the product list based on rating or price. Users can select the items and add them to the cart. Once the selection is done, users can go to the cart page for payment. Identify and write the user stories for this application.

[Feb/March 2023]

-12 marks

Registration

### **I.Sign-up:**

As a shopper, I want to sign up for the Flipkart application through a new user form, so that I can get access to buy a variety of products.

#### **Acceptance Criteria:**

- ◆ While signing up-Valid Phone Number/Email id and OTP/Password.
- ◆ If sign up is successful, it will get automatically logged in
- ◆ If I am trying to sign up with an invalid phone number/Email Id, I will receive an error message to enter a valid information.
- ◆ If we are trying to sign up with an existing phone number/Email Id, we will receive a message saying “you are already registered.”

### **2.Login**

As an authorized shopper, I want to log in for Flipkart application, so that I can have access to the application for searching and buying products.

#### **Acceptance Criteria:**

- ◆ While logging in, phone number/E-mail Id and OTP/Password is required.
- ◆ After successful log in, it will be redirected to the main page.
- ◆ If we are trying to login with incorrect mobile number/Email Id or OTP/Password, then an error message will be displayed as “invalid credentials”

### **3.View a List of Products**

As a Shopper I want to view a list of products so I can select some items to purchase.

#### **Acceptance Criteria:**

- ◆ See a thumbnail image for each product
- ◆ Click to view details for product
- ◆ Add to cart from detail page
- ◆ Search for a product
- ◆ View products by category

### **4.Review a Cart**

As a Shopper, I want to review my cart so that I can make adjustments prior to checkout.

#### **Acceptance Criteria:**

- ◆ View quantities and items in the cart.
- ◆ See the total cost before tax and shipping.
- ◆ Remove items
- ◆ Adjust the quantity of items.
- ◆ Click to navigate to a product detail page

### **5.Check out**

As a Shopper, I want to check out so I can get my products shipped to me.

#### **Acceptance Criteria:**

- ◆ Trigger checkout from any page, if there are items in the cart
- ◆ Enter a shipping address
- ◆ Enter a billing address
- ◆ Enter a credit card number
- ◆ Show total including tax and shipping before finalizing
- ◆ Show Confirmation message after finalizing
- ◆ Verify payment through our payment processor

## 6.Review Orders

As a Shopper, I want to review my orders so that I can see what I have purchased in the past.

### Acceptance Criteria:

- ◆ View a list of open and completed orders
- ◆ See the status of the order
- ◆ Navigate to the details of the order
- ◆ Include a tracking number if the order is shipped but not delivered
- ◆ Contact customer service about an order from the details page

## 7 Logout

As a Shopper, I want to log out of Flipkart application, so that I can prevent unauthorized access of my profile.

### Acceptance Criteria:

When I log out of my account. I will be redirected to the log-in page.

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5. b) Write test cases for the above application. [Feb/March 2023] -8 marks

### Test Cases for Flipkart website Login Page

- Check that there are proper validations on Login Page.
- Check for an error message if the Email, password, or any required field is left blank.
- Check the validations on the Email and password.
- When you log in, check that you stay logged in as you browse products. Also, you need to test the behaviour.
- When the user doesn't interact with the site for some time, then the user has been logged out after the session times out.
- When you are logged in, log out and make sure you are logged out and that you cannot access any of the account's pages.

## Test Cases for Flipkart Website Search Page

- Check that the products displayed are related to what was searched for.
- Check that the products should display an image, name, price, and maybe customer ratings and number of reviews.
- Check the more relevant product for the search term is displayed on the top for a particular search term.
- Check that all items on the next page are different from the previous page, i.e., no duplicates.
- Check that when both sorts and filters have been applied, they remain as we paginate or more products are loaded.
- Check that count of products is correctly displayed on the search result page for a particular search term.
- Check that filtering functionality correctly filters products based on the filter applied.
- Check that filtering works correctly on category pages.
- Check that filtering works correctly on the search result page.
- Check that the correct count of total products is displayed after a filter is applied.
- Check that all the sort options work correctly - correctly sort the products based on the sort option chosen.
- Check that sorting works correctly on the category pages
- Check that sorting works correctly on the search result page
- Check that sorting works correctly on the pages containing the filtered result, after applying filters.
- Check that the product count remains intact irrespective of the sorting option applied.

## Test Cases for Flipkart Website Shopping Cart

- Users should be able to add a product to the cart.
- Item count should be incremented when the user adds the same product again
- Taxes should be applied according to the delivery location.

- Users should be able to add items to the cart.
- Users should be able to update items in the cart.
- Checkout should happen successfully for the items added to the cart.
- Coupons should be applied successfully to the cart.
- The cart should retain the items even when the app is closed.

### Payment Page Test Cases

- Check that after filling the shipping address and payment, the product is purchased successfully.
- Check that different payment types should be present, e.g. Credit Card, PayPal, Bank Transfers, Instalments, etc.
- Check the security of the client's card details when entered for payment.

### Test Case for Flipkart Website-Post Order Page

- Email and order id should be sent after placement of order.
- Users should be able to cancel the order.
- There should be a facility for users to track the order.
- Users should be able to return/replace the product post-delivery.

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6 a) BookingHall is an online convention hall booking application which allows users to login and find the halls in a particular locality and check the availability of a hall for specific dates. Users can book a hall for required duration and get booking details. Identify and write the user stories for this application. .

[ Modal QP, December 2023]

-12 marks

User story is an informal, general explanation of a software feature written from the perspective of the end user or customer.

For Booking Hall application, the user stories are as follows -



### **I. User Story: Registration/Sign-up:**

As a new user, I want to sign up for the application through a sign-up form, so that I can access the hall booking app.

#### **Acceptance Criteria:**

- i. While signing up, enter Username, Email, Password & Confirm Password, Security question and Address.
- ii. If user sign up with an incorrect detail, user receives an error message for incorrect information.
- iii. If user tries to sign up with an existing email address, existing mobile number, user receives error messages saying “email exists”, “mobile registered already”.
- iv. If sign up is successful, a confirmation email is sent to user for mobile & email verification. After successful verification user can login into app with credentials

### **2. User Story: Login**

As a registered/authorized user, I want to login into BookingHall application so that I can access variety of services provided by the app.

#### **Acceptance Criteria:**

- Username, password and captcha are required for user login.
- If we are trying to login with incorrect username or password, then error message will be displayed as “bad credentials”.
- After successful log in, home page is displayed.

### **3. User Story: Search**

As an authorized user, I want to search the halls in a particular locality for a particular date so that I can book the hall

#### **Acceptance Criteria:**

- User has to enter valid locality and valid date.
- A valid search displays list of halls available in a particular locality for a particular date.
- User can sort, filter and modify the search results.

#### 4. User Story: Book Hall

As an authorized user, I want to book a hall so that I can conduct an event at a particular place on a date.

##### Acceptance Criteria:

- User has to choose among the available halls for booking.
- User details like name, email, phone number, address, etc need to be entered
- Valid payment mode is to be selected for making necessary payment
- After successful payment, user should get the booking details to registered mobile number and E-mail id

#### 5. User Stories: Logout

As a logged in user, I want to log out of Booking Hall app so that I can prevent unauthorized access to my profile.

##### Acceptance Criteria:

- When user logs out of his account by clicking log out button, logged out message should appear and app has to redirected to the log-in page.
  - If user session expires due to internet failure or system crash, then user has to be logged out the application.
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6. b) Write test cases for the above application.

- 8 Marks

##### Test Cases for the Registration Page:

- Verify that the registration page is accessible from the website's homepage and loads correctly for desktop and mobile versions.
- Check that the system validates the user's information such as email address, phone number, security questions, address and password complexity.
- Ensure that the system does not allow duplicate email addresses or phone
- Verify that the user receives an email or SMS confirmation after registering.

### **Test Cases for the Login Page:**

- Verify that the login page loads correctly and is accessible from the website's homepage.
- Check that the login credentials are case sensitive and the appropriate message is displayed if the user enters incorrect information.
- Verify that the "Forgot Password" option works as intended, allowing users to reset their password in case they forget it.
- Ensure that the system limits the number of unsuccessful logins attempt to prevent brute-force attacks.

### **Test Cases for the Hall Search:**

- Ensure that the Hall search page displays list of halls corresponding to given particular date and locality.
- Verify whether user is able to apply filter, sort halls and modify existing search.
- Verify whether user is able to select the required hall, check for availability of hall for a particular date and locality.

### **Test Cases for the Hall Booking:**

- Verify that the system displays the total cost of the hall as per booking details, including any taxes and fees.
- Verify whether user is able to cancel the hall or not.
- Verify whether booking confirmation is received by user or not.

### **Test Cases for the Payment Gateway:**

- Verify that the payment gateway is secure & encrypts user information to prevent fraud.
  - Ensure that the system accepts multiple payment options, such as credit/debit cards, GPay, PhonePe and mobile wallets
  - Ensure that the payment gateway sends a confirmation email or SMS to the user after the successful transaction
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7.a) e-Desert is an online application which allows users to login and search for a desert, sort the desert list based on the rating or price, select the items, add them to cart and place order by doing payment. Identify and write the user stories for this application.

[ Modal QP, December 2023]

-12 marks

User story is an informal, general explanation of a software feature written from the perspective of the end user or customer.

For e-Desert application, the user stories are as follows-

### **1. User Story: Registration/Sign-up:**

As a new user I want to sign up for the application through a sign-up form, so that I can access the desert booking app.

#### **Acceptance Criteria:**

- While signing up, enter Username, Email, Password & Confirm Password, Security question and Address.
- If user sign up with an incorrect detail, user receives an error message for incorrect information.
- If user tries to sign up with an existing email address, existing mobile number, user receives error messages saying 'email exists', 'mobile registered already'.
- If sign up is successful, a confirmation email is sent to user for mobile & email verification. After successful verification user can login into app with credentials

### **2. User Story: Login**

As a registered/authorized user, I want to login into e-desert application so that I can view and book a variety of deserts provided by the app.

#### **Acceptance Criteria:**

- Username, password and captcha are required for user login.
- If we are trying to login with incorrect username or password, then error message will be displayed as "bad credentials".
- After successful log in, home page is displayed.

### 3. User Story: Search

As an authorized user, I want to search the variety of deserts so that I can book the desert of my choice.

#### Acceptance Criteria:

- User has to enter valid desert name.
- A valid search displays list of deserts available
- User can sort, filter and modify the search results based on the rating or price.

### 4. User Story: Desert booking

As an authorized user, I want to book a desert of my choice from the list of available deserts

#### Acceptance Criteria:

- User has to choose among the available deserts for booking.
- User details like name, email, phone number, address, etc need to be entered
- Valid payment mode is to be selected for making necessary payment
- After successful payment user should get the booking details to registered
- Valid payment mode is to be selected for making necessary payment
- After successful payment, user should get the booking details to registered mobile number and E-mail id

### 5. User Stories: Logout

As a logged in user, I want to log out of eDesert app so that I can prevent unauthorized access to my profile.

#### Acceptance Criteria:

- When user logs out of his account by clicking log out button, logged out message should appear and app has to be redirected to the log-in page.
  - If user session expires due to internet failure or system crash, then user has to be logged out the application.
-

**7.b) Write the test cases for the above application.**

**- 8 Marks**

**Test Cases for the Registration Page:**

- Verify that the registration page is accessible from the website's homepage and loads correctly for desktop and mobile versions.
- Check that the system validates the user's information such as email address, phone number, security questions, address and password complexity.
- Ensure that the system does not allow duplicate email addresses or phone number
- Verify that the user receives an email or SMS confirmation after registering.

**Test Cases for the Login Page:**

- Verify that the login page loads correctly and is accessible from the website's homepage.
- Check that the login credentials are case sensitive and the appropriate message is displayed if the user enters incorrect information.
- Verify that the "Forgot Password" option works as intended, allowing users to reset their password in case they forget it.
- Ensure that the system limits the number of unsuccessful logins attempt to prevent brute-force attacks.

**Test Cases for the Desert Search:**

- Ensure that the Desert search page displays list of deserts.
- Verify whether user is able to apply filter, sort deserts and modify existing search.
- Verify whether user is able to select the required desert, check for its availability and quantity.

**Test Cases for the Payment Gateway:**

- Verify that the payment gateway is secure & encrypts user information to prevent fraud.
- Ensure that the system accepts multiple payment options, such as credit/debit cards, GPay, PhonePe and mobile wallets
- Ensure that the payment gateway sends a confirmation email or SMS to the user after the successful transaction