Use Cases for Spa Appointment

UC. 1 ACCOUNT CREATION
Goal in context User creates an account to book spa services. Through this use case, potential customers can register and set up an account to make spa reservations.
Scope • Web application
Level • User goal
Actors • Customers • Stakeholders and managers • IT Management- Expand customer base, Guarantees complete and accurate data collection
Preconditions • The web application should be operational all the time. • The user should provide valid information such as their name, email address, and password. • Should verify the email address. • The user must create a strong password that meets the web application requirements. • User must accept both terms & conditions and the privacy policy of the web application. • The website must be accessible to the user, including any necessary technology or software requirements. This may involve a compatible web browser, internet connection, or operating system.
End Condition Success • Account created for customers. • Email confirmation for account creation is sent to customers. • Customers can update their personal information and payment method preferences.
End condition failure • Existing account - account not created. • Terminated account – This account has been terminated, please contact the customer support for further details. • Customer does not accept terms and conditions – account will not be created. • Infrastructure failure – Customer tries at a later point in time

Main success scenario

1. Customer navigates to the signup or registration page.
2. Capture customer demographics from registration page
3. Customers agree to both terms & conditions and the privacy policy.
4. Validate demographics.
5. System checks for existing accounts and terminates process.
6. System validates email and password.
7. Systems creates an account with the details entered in the registration page.
8. Capture credit card data
9. Validate credit card data
10. Verify credit card data
11. Send email confirmation for account creation.

Extensions

- Infrastructure failure
    - Customer retries again later
- Any missing data notify the user.
    - Capturing data from the registration page
    - Capture of incorrect/ invalid data
        - Highlight the data that is incorrect and request for updating of data in the registration page
    - Existing account
        - Notify customer about existing account and terminate process
    - Previous terminated account found
        - Notify customer about previous terminated account and terminate process.
    - Invalid credit card data
        - Highlight invalid/ incorrect data and prompt for re-entry
    - Credit cards expired
        - Notify customer and prompt for alternative credit card
    - Credit number does not match type
        - for re-entry Indicate error to customer and prompt
    - Credit card number not associated with the customer
        - Place hold or card and notify user about possible fraudulent use of credit card
    - Credit card reported lost or stolen
        - Decline cards and notify user about possible fraudulent use of credit card
    - Email not deliverable
        - Flag account as inactive

Special Requirements, including performance.

- Customers should be within a radius of 20miles from Milwaukee

Technology and data variants

- Should be accessible via mobile devices or on a computer

Open Issues

- What should be the correct action for closed accounts?
- How do we recognize existing or terminated account?
- What credit card types will support?
- Do we need to capture card holder name and credit cards billing address as part of this use case?
- How do we handle transactions that exceed the user's available credit limit?
- What security measures do we need to implement to prevent fraud and unauthorized transactions?
- What are our obligations for cards reported lost or stolen?
- What is the process for issuing refunds?
- How do we handle expired credit cards or accounts with insufficient funds?

Related use cases

- UC. 2 User account update
- UC. 3 User account closure

Non-functionality requirements

- Usability – Simple navigation and language, a simple interface, and ease ofuse
- The Spa application should be available with minimal downtime.
- The Spa application should be secure sockets layer certified.
- The Spa application should be encryption of sensitive data, secure transmission of data, and secure storage of data to prevent unauthorized access or fraud.
- The Spa application should be compatible with different web browsers and operating systems such as Microsoft edge, chrome and operating systems like windows, Linux etc.
- The Spa application should be able to handle a high volume of user requests without any issues with the performance.
- Security – No access to private customer and their account information.

UC.2 User Account Update

This use case allows customers to make changes to their personal information on the Spa application page, including their preferred name, contact number, email, and credit card details. The changes will be verified and validation procedures to ensure they are accurate.

UC. 3 User Account Closure

This use case allows customer to close their account for any reason or select any reasons provided.

UC. 4 Spa Appointment

Goal in Context

This use case allows customers with a spa application account to schedule any spa service by browsing through services available in the application and selecting a time slot from the available options for each service after successful login.

Scope

- The scope of this use case is to allow customers with a spa application account to purchase any spa service. Users can browse through the services and select a time slot of their choice. The focus is on providing a convenient and secure process for customers to purchase spa services, with the aim of increasing sales for the spa.

Actors

- Customers

Level

- User goal

Stakeholders and managers

- Customers
- Spa

Preconditions

- The spa application is functioning properly and has no technical issues.
- The customer has a valid account with the spa and has completed the registration process.
- Architecture up and running.
- Customer should have a valid account.
- The time slot selected by the customer is available and not already booked byanother customer.
- List of services that are available at the Spa.
- List of services that are available at time slots.

Customers must select a time slot for their spa service.

End conditions – Success

- Customers select the service of their choice.
- Reaching the payment page.
- Spa service has been successfully scheduled.
- Email confirmation sent to the customer

End conditions – Failure

- Not able to log in due to various reasons which include termination, and closure.
- Not able to select a time slot as it is not available it may be booked by someone else.
- If the service of choice is not available, then the selection of service cannot bedone.
- If the service is not available in the selected time slot, then the selection cannot be done.
- Payment failure – seek an alternative credit card or terminate the process.
- Services not available – offer alternative options to customers.
- Customers elect not to purchase service – terminate the process.
- Infrastructure failure – customer tries at a later point.

Main Success Scenario

1. Customers successfully login by authentication using their login credentials.
2. Customers browse through available spa services or search for the spa service of their choice.
3. System checks if the service is available or not.
4. Customer selects the time slot and date for the selected service.
5. System checks for the time and date availability.
6. System places a hold on the selection.
7. System calculates the total amount.
8. Once the selection is completed, customers are directed to the payment page.
9. System releases the hold on the selection.
10. Customer credit card details are captured, validated, and verified.
11. Credit card is charged.

Extensions

- Infrastructure failure
    - Customer tries again later.
    - Customer would not be.
- Unsuccessful login or authentication using the account.
    - Notify the customer of error and prompt for re-entry, if less than 5times.
- If a customer account is terminated or closed.
    - Appropriate message is displayed, and the process is terminated.
- If a particular service is not available.
    - Inform customers that the service is not available and ask them to select someother service.
- If a service gets cancelled.
    - Customer is informed regarding the cancellation of the appointment and any updates about it.
- If a customer searches for the service, it is based on the availability of the spa services available.
    - Customers get the information about each spa service and all the spa service details get updated on the appointment.
- If spa services are not available
    - Notify the customer about the unavailability and suggest any other service
- Customer plans not to proceed
    - Remove any selected service and terminate process.

Special Requirements, including Performance

- Any page of the website can be browsed and the response time should be lessthan 10 secs, 95% of the time.

Technology and Data Variants

- Should be accessible via mobile devices and computers.

Frequency

- The limit for the number of requests a user can make per day is set to 20.

Open Issues

- How to select multiple services in one go?
- How to handle conflicts when multiple customers try to book the same time slot for service?
- Providing information about any special requirements or preparations needed for the selected service.
- Providing the option for customers to leave reviews or feedback about the service they received.
- Providing options for customers to add additional services or products to their appointment.
- How to handle customer requests for changes to their selected service, time slot, or duration after payment has been made?
- Providing options for customers to view their appointment history and details.

Related Use Cases

- UC.1 Account creation
- UC. 4 Spa Appointment
- UC. 5 Cancellation of Appointment
- UC.9 Inquiries
- UC.10 Sales Report

Non-Functional Requirements

- Usability – Easy to use, simple search and browsing through events
- Reliability – 99% uptime, downtime not to exceed 4 hours/month.
- Performance – availability checking response time should be under 20 seconds 95% of the time.
- Security – No one should be able to get into our app with administrator privileges.
- Supportability – Is fully accessible via Android and IOS operating systems.
- Scalability – The system should be able to handle a high volume of users and requests without any performance degradation.
- The website should be accessible to users with disabilities.
- Customer information should be kept confidential and only accessible to authorized staff.
- The website should be able to handle multiple user requests without any slowdown or delay.
- The website should comply with all applicable united states laws and regulations related to data privacy and security.

UC. 5 Cancellation of Appointment

This use case allows customers to cancel their spa reservation in case of any unexpected situations and allows customer support to communicate this to customers. If a reservation is canceled at least five hours before the scheduled appointment, customers will receive a refund, and email communications are sent for the status of the refund.

UC. 6. Refund

This use case goal is to process a refund for a customer who is eligible for a refund. This use case aims to make sure customers who qualify for a refund get their money back in a prompt and effective manner. This reduces the possibility of unfavorable reviews or complaints while also maintaining consumer pleasure and faith in the business.

UC. 7 – Process Payment
Goal • This use case processes a credit card payment for the purchase of the spa service.
Scope • This use case's main goal is to process a credit card payment for the purchase of spa services.
Level • Sub-function
Actors • Customer – the primary (through UC. 4 Spa Appointment)
Stakeholders & interests • Customer - secure • Payment processor -accurate and timely processing
Preconditions • Link to payment processing is up and functioning. • Payment amount is available
End conditions – success • Student's credit is charged correctly for the amount due
End conditions - failure • Infrastructure failure -System flags as the transaction is incomplete • Invalid credit data- Transaction flagged as failed • Charge request denied -Transaction flagged as failed
Main success scenario 1. Systems initiates payment request with the amount due and requests credit card information form the student 2. Customer selects stored credit card 3. Customer provides credit verification value 4. System verifies credit card data 5. System issues charge request to the payment processor using details provided 6. Payment processor approves the charge 7. System returns approval authorization to calling use case for appropriate processing 8. System sends an invoice to the customer

Extensions

- Infrastructure failure
    - IT personnel resets the connection and tries again.
- CVV missing.
    - Flag missing data and prompt for re-entry
- Credit card expired.
    - Indicate the error to the customer and prompt for the new creditcard.
- Unable to connect to the payment processor.
    - Retry after a short timeout

  No response from payment processor.
- After a pre-set timeout, reissue the charge request.
- Payment processor denies the charge.
    - The purpose of capturing the reasons for denial in the calling use case is to communicate them to the customer.

Special requirements

Response time should be about 10 seconds when called from UC.4(Spa Appointment)

Technology and Data variants

None

Frequency

- IT depends on the number of services that are held

Open issues

- How much security is required for this use case?
- How soon should the transaction expire if the credit processor doesn't respond?
- What types of failure notices may we expect from the credit processor, and what are our obligations for each one?

Related use cases

- UC.4 -Spa Appointment

Non-functional requirements

- Usability – Simple navigation and language, a forgiving interface, and ease of use
- Performance time – Account creation response time should be under 5 seconds
- Security – No access to private customer and their account information
- Supportability – None

Payment processors to send confirmation to customers upon successful payment for the Spa reservation. An invoice is sent to them stating the payment details, with amount paid, customer details and mode of payment.

UC. 8 Appointment confirmation details delivery through email

This use case allows the payment processor to send the appointment confirmation details to the email for which the customer has registered and made a payment. The email is sent with details consisting of service, time, and customer details.

UC.9 Inquiries

This use case allows customers, and IT support to enquire or search data related to the customer account, list of spa services provided, time slots available for the spa service, and spa servicesprice for the given.

UC. 10 Sales Report

This use case allows stakeholders and IT support to access a sales report which generates a few services conducted in a week. They can access the report showing the spa service sales made. This report shows sales made for every week. Weekly reports are generated, and the support team accesses them to work on improving services

Assumptions:

After reviewing our previous report, we realized that the use cases we had identified were too detailed and unnecessarily divided. As a result, we made corrections by merging multiple use cases into one and removing some that were redundant. This approach better reflects the real-world scenario of the application.