

Version History Table

| Version | Date | Description |
|---------|-----------|--|
| v1.0 | 4.11.2023 | - |
| v1.1 | 8.11.2023 | The use case name is changed to "Make Reservation" instead of "Making Reservation" |

Use Case UC1: Make Reservation

Scope: ReserveWell Application

Level: user goal

Primary Actor: Diner

Stakeholders and Interests:

- Diner: Wants to make a reservation at the restaurant efficiently and conveniently.
- Restaurant Manager: Needs to manage reservations effectively and ensure a smooth dining experience.
- System Administrator: Responsible for maintaining and monitoring the reservation system.
- Payment Authorization Service: Responsible for connect to the bank's system
- Development Team: Wants the customer to make the restaurant reservation correctly. Need to ensure system's stability, scalability, security, and adherence to best practices.

Preconditions:

- The reservation system is operational.
- The diner has a stable internet connection.

Success Guarantee (or Postconditions):

- The diner has successfully completed a reservation.
- The reservation information, including the restaurant location, date, time, and the number of guests, is stored in the restaurant's reservation system.
- A unique reservation ID is generated and associated with the diner's reservation.
- The diner receives a confirmation, sent to their email or phone number, date, time, and restaurant details.
- The reservation system is updated with the new reservation, making the reserved table or dining area unavailable to other diners during the specified date and time.

Main Success Scenario (or Basic Flow):

1. Diner visits the website.
2. Diner picks an available restaurant from the interface.
3. Diner specifies the number of people, date and time for the reservation.
4. System checks and verifies the chosen restaurant's availability according to provided information by diner.
5. Diner reviews and confirms reservation details.
6. Diner enter his/her email or phone number.
7. System records the reservation for the selected restaurant.
8. Diner receives a confirmation via email or message for the reservation.
9. System directs diner to customer services screen for getting feedback.
10. Diner give her/his feedback.
11. Diner exits from the website.

Extensions (or Alternative Flows):

*a. At any time, System fails:

1. Diner restarts System, and requests recovery of prior state.
2. System reconstructs prior state
- 2a. System detects anomalies preventing recovery:
 1. System signals error to the Diner, records the error, and enters a clean state.
 2. Diner starts to make a new reservation.

1a. Diner has membership:

1. The diner logs in his/her membership information and password.
- 1a. Diner entered incorrect information.
 1. System notifies the dinner and re-directs to the login screen.
 2. Diner enter the information again.

The diner repeats steps 1-2 until he/she is verified.

1b. Diner wants to create an account:

1. Diner enters his/her name and surname.
2. Diner enters the password he/she wants to use.
3. Diner enters his/her phone number.
4. Diner enters his/her e-mail.
5. System redirects the diner to the main screen.

3a. Diner wants to reserve more than maximum group size for the selected restaurant. (additional charges apply):

1. System shows payment details on the screen.
2. System directs the diner to the payment screen.
3. Diner enters his/her credit card details including card number, expiration date, and CVV.
4. The system securely sends the entered credit card information to the bank for payment processing.
5. The system redirects the diner to the screen where she/he will enter the confirmation code.
6. The bank processes the payment and sends confirmation code to the diner.
7. Diner enter the confirmation code.

3b. Diner wants to make a reservation at a restaurant where an event will be held:

1. System shows payment details on the screen.
2. System directs the diner to the payment screen.
3. Diner enters his/her credit card details including card number, expiration date, and CVV.
4. The system securely sends the entered credit card information to the bank for payment processing.
5. The system directs the diner to the screen where she/he will enter the confirmation code.
6. The bank processes the payment and sends confirmation code to the diner.
7. Diner enters the confirmation code

4a. System determines that the selected restaurant is not available at the specified date and time.

1. The system displays a screen asking yes or no if the diner is waiting on the waiting list.
 - 1a. The diner chooses yes.
 1. The system puts the diner on the waiting list.
 2. Diner exits from the web site.
 - 2a. The diner chooses no.
 1. The diner chooses an alternative date or time for the same restaurant, select a different restaurant, or select a different date.

3-5a. Diner Cancels Reservation

1. The system cancels the reservation for the selected restaurant.
2. Diner exits from the web site.

3-5b. Diner Modifies Reservation:

1. Diner updates reservation information.
2. The system updates the reservation details for the selected restaurant accordingly.

Special Requirements:

- The system must ensure data security and protect diner's personal information.
- The system should allow diners to view and manage their reservations after the reservation process is complete.
- No login or account creation is required for diners to make a reservation.

Technology and Data Variations List:

1. The web site is supported by all browsers.
2. Restaurant information are displayed on the screen.
- 3a-3b. System can successfully connect to the bank's system.
- 4a-5a. Database is maintained for reservation records, including reservation IDs, diner details, restaurant details, date, time, and party size.
7. Reservation notification can be sent via email or message via phone number.
10. Archiving historical reservation and feedback for analytics, reporting, and improving the reservation system.

Frequency of Occurrence: Could be nearly continuous.

Open Issues:

- Explore the remote service recovery issue.
- What customization is needed for different restaurant types such as for cafes, fine dining and breakfast?
- How will the restaurants be ordered on the main page (near location, alphabetical order, etc)?
- Which languages will be supported by the ReserveWell?
- Will there be any advantage for the diners who have membership?