UC Name	FR_GST_08:Regsister guest expenses to final invoice
Summary	Record guest expenses on the final invoice.
Dependency	No dependency
Actors	Guest is the primary actor.
Preconditions	Guest Check-In: The Guest must be registered in the system they have checked in to the facility, hotel, or venue.
	2. Active Account: An active account or record must exist in the system for the Guest to track their expenses and later generate the final invoice.
	3. Expense Logging Mechanism: The system or staff must have the tools or processes in place to register expenses accurately.
	4. Staff Availability (if applicable): If manual expense entry is required, relevant staff should be available to handle it.
Description of the Main Sequence	 Step 1: The guest uses a service or purchases an item (e.g., dining, room service, or spa treatment). Step 2: Staff records the expense details, such as description, amount, and time, using the system interface. Step 3: The system registers the expense and links it to the guest's account Step 4: The system updates the guest's interim invoice in real-time to include the registered expense
	 Step 5: Optionally, the guest reviews their interim invoice to confirm accuracy during their stay Step 6: At checkout, the system consolidates all expenses to generate the final invoice Step 7: The guest settles the final invoice via their chosen payment method (cash or credit card) Step 8: The system generates and provides the final invoice to the guest, including a detailed expense summary.

Description of Step 1: The guest disputes an expense. Staff verifies the Alternative the charge and either removes it or corrects the Sequence invoice. Step 2: The system encounters a failure while registering an expense. Staff manually logs the expense and updates the system later. Step 3: The guest cancels a service or item after it has been registered (e.g., cancels a spa appointment). Staff removes the expense from the system and adjusts the invoice. • Step 4: The guest requests an interim invoice for review during their stay. Discrepancies are resolved before checkout. Step 5: The guest makes a partial payment during their stay. The system updates the invoice to reflect payments made and the remaining balance. Non functional • The system must process and register expenses within 2 requirements seconds of receiving input to ensure smooth operation. The system should support simultaneous usage by at least 100 staff members without performance degradation. The interface must be user-friendly and intuitive, enabling staff to log expenses with minimal training. • The system must have 99.9% uptime to ensure uninterrupted operation for registering guest expenses. **Postconditions** The guest's account has been updated with the newly registered expense, including all relevant details such as the description, amount, and timestamp. • The interim or final invoice associated with the guest reflects all registered expenses accurately. • The system maintains a log of the transaction for future reference or auditing purposes. • The data integrity of the guest's account and overall system is ensured, with no errors or inconsistencies introduced during the process.

UC Name	FR_GST_09: Request room service through mobile guest portal.
Summary	Guests can request room service via the mobile portal.
Dependency	No dependency
Actors	Guest is the primary actor.
Preconditions	•Active Guest Profile: The guest must have an active account or profile in the system, linked to their stay details.
	•Operational Mobile Portal: The mobile portal must be functional and accessible to the guest via a supported device (e.g., smartphone or tablet).
	•Guest Authentication: The guest must be logged into the mobile portal with valid credentials.
	•Room Service Availability: Room service must be operational, with items or services available for request.
	•Network Connection: The guest's device must have a stable internet connection to access the mobile portal.
Description of the Main Sequence	 Step 1: The guest accesses the mobile portal using their valid credentials. Step 2: The mobile portal displays the available room service items and services for selection. Step 3: The guest chooses desired items or services and adds them to their order. Step 4: The mobile portal provides an order summary for the guest to review and confirm Step 5: The guest submits the room service order through the portal. Step 6: The system logs the guest's request and forwards it to the appropriate staff or service department Step 7: The staff processes the order and prepares it for delivery.

	Step 8: The ordered items or services are delivered to the guest's room.
Description of the Alternative Sequence	 Step 1: The guest is unable to log into the mobile portal due to forgotten credentials or technical issues. Staff assists in resolving the issue. Step 2: Certain room service items or services are temporarily unavailable. The system informs the guest and suggests alternatives, if applicable. Step 3: The guest cancels a service or item after it has been registered (e.g., cancels a spa appointment) Step 4: The guest's order is delayed due to operational constraints. Staff communicates the delay and ensures a resolution. Step 5: The system encounters a failure while processing the guest's request. The guest is prompted to resubmit the order or contact staff for assistance
Non functional requirements	 The mobile portal must be intuitive, with clear navigation and accessibility for users of all skill levels. The system must handle 99.9% uptime, ensuring guests can request room service without interruptions The portal must securely authenticate users and encrypt all data, ensuring privacy and protection of guest information. The mobile portal must be available 24/7 to allow guests to place orders at any time. The system must function seamlessly across different devices (e.g., smartphones, tablets) and platforms (e.g., iOS, Android).
Postconditions	 The guest's room service request is successfully recorded in the system, with all relevant details (e.g., items requested, quantity, and time of order). The system notifies the appropriate staff or service department to prepare and deliver the order. The expense associated with the room service request is added to the guest's account and reflected in their interim or final invoice The guest receives a confirmation message through the mobile portal, acknowledging the successful submission of

their request.
• The guest can track the status of their room service order via the mobile portal.

UC Name	FR_GST_10: View expenses through mobile guest portal.
Summary	Guests can access and view their expenses anytime via the mobile portal.
Dependency	No dependency
Actors	Guest is the primary actor.
Preconditions	Guest Account Setup: The guest must have an active account in the system with their expenses correctly linked.
	2. Mobile Portal Accessibility: The mobile portal must be functional and accessible via compatible devices (smartphone, tablet).
	3. Guest Authentication: The guest must be logged into the portal using valid credentials to securely access their information.
	4. System Data Synchronization: The system must ensure all expense data is updated and synchronized in real-time.
Description of the Main Sequence	 Step 1: The guest accesses the mobile portal using their valid credentials. Step 2: The portal retrieves and displays the guest's expenses in an organized format (itemized list). Step 3: The guest selects specific expenses to view detailed information (date, amount, description). Step 4: The guest reviews their interim invoice, which consolidates all recorded expenses. Step 5: The system ensures the displayed expenses are up-to-date and synchronized with the central database.
Description of the Alternative Sequence	Step 1: The guest is unable to log into the mobile portal due to forgotten credentials or technical issues. Staff assists the guest in resetting their credentials or resolving the issue.

Step 2: The system fails to retrieve expense details due to a technical issue. A message is displayed to the quest, and staff is notified to resolve the error • Step 3: The displayed expenses are outdated due to a synchronization delay. The system refreshes the data and updates the portal in real-time once the issue is resolved. Step 4: The guest's device is incompatible or has connectivity issues. Staff provides an alternative method to review expenses, such as printed statements or accessing a kiosk. Step 5: The guest notices incorrect expense details while reviewing their account. They report the issue via the portal or directly to staff, who investigate and resolve it Non functional The mobile portal must feature a user-friendly interface with requirements clear navigation for all guests. • All data, including guest credentials and expense details, must be encrypted and securely stored to maintain privacy. • The mobile portal must be compatible with all popular operating systems (iOS, Android) and browsers. The portal must adhere to accessibility standards to cater to guests with disabilities, such as screen reader support. **Postconditions** • The guest successfully views an up-to-date, itemized list of their expenses through the mobile portal. • The system ensures that the expense details displayed match the information stored in the central database, with no discrepancies. • The system records the guest's access attempt for auditing and monitoring purposes. • The session ends securely, ensuring no unauthorized access to the expense details post-interaction.