

UC Name	<i>FR_GST_11: Generate itemized invoice at checkout, revoke digital key.</i>
Summary	<i>This UC allows the receptionist to generate, revoke, and invoice for the guests.</i>
Dependency	
Actors	<i>Primary actor: Guest Secondary actor: Receptionist, Flexipass SDK</i>
Preconditions	<i>The guest has checked in and stayed at the hotel. All the expenses (services, room charges ,etc.) have been logged in the system. The guest is ready to check out</i>
Description of the Main Sequence	<ul style="list-style-type: none"> • <i>The guest initiates the checkout process via the Mobile Guest Portal or at the front desk.</i> • <i>The system retrieves all logged expenses (room charges, services, etc.) for the guest.</i> • <i>The system generates an itemized invoice, including a breakdown of all charges.</i> • <i>The system presents the invoice to the guest for review at the Mobile Guest Portal.</i> • <i>The guest confirms the invoice and selects a payment method (online or at the front desk).</i> • <i>The system processes the payment and generates a receipt.</i> • <i>The system revokes the guest's digital key, ensuring they no longer have access to the room or facilities.</i> • <i>The system updates the room status to "Needs Cleaning" for housekeeping.</i>
Description of the Alternative Sequence	<ol style="list-style-type: none"> <i>1. If the guest disputes any charges:</i> <ol style="list-style-type: none"> <i>1.1 The receptionist reviews the charges and makes adjustments if necessary.</i> <i>1.2 The system regenerates the invoice and presents it to the guest for approval.</i>

	<p><i>2. If payment fails:</i></p> <p><i>2.1 The system notifies the guest and prompts them to try another payment method.</i></p> <p><i>2.2 If payment still fails, the receptionist handles the situation manually.</i></p>
Non functional requirements	<i>The system must generate the invoice within 2 seconds of the guest initiating checkout. The digital key revocation process must be instantaneous to ensure security. The system must ensure all financial transactions are encrypted and comply with PCI DSS standards.</i>
Postconditions	<i>The guest has received an itemized invoice and paid their bill. The guest's digital key has been revoked, and they no longer have access to the room or facilities. The room status has been updated to "available" for housekeeping.</i>

UC Name	<i>FR_GST_12: Send post check-out survey to collect feedback.</i>
Summary	<i>This UC describes the process of sending a post check-out survey to the guest to collect feedback about their stay.</i>
Dependency	
Actors	<i>Primary actor: Guests</i>

Preconditions	<i>The guest has successfully checked out of the hotel. The guest's contact information (email or phone number) is available in the system.</i>
Description of the Main Sequence	<ul style="list-style-type: none"> • <i>The system automatically triggers a post check-out survey after the guest checks out.</i> • <i>The system sends the survey to the guest via email or SMS, depending on their preferred contact method.</i> • <i>The guest completes the survey and submits their feedback.</i>
Description of the Alternative Sequence	<ul style="list-style-type: none"> • <i>If the guest does not respond to the survey within 24 hours: The system sends a reminder email or SMS.</i> • <i>If the guest opts out of receiving surveys: The system does not send the survey and logs the opt-out preference.</i>
Non functional requirements	<i>The survey must be sent within 1 hour of checkout. The survey interface must be mobile-friendly and easy to complete. The system must ensure guest data privacy and comply with GDPR/CCPA regulations.</i>
Postconditions	<i>The guest has received and completed the post check-out survey.</i>

UC Name	<i>FR_GM_01: Generate reports summarizing guest survey feedback.</i>
Summary	<i>This UC describes the process of generating reports that summarize guest feedback collected from post check-out surveys.</i>

Dependency	
Actors	<i>Primary actor: General manager</i>
Preconditions	<i>Guest feedback has been collected and stored in the Reporting and Analytics Module. The General Manager has access to the Reporting and Analytics Module.</i>
Description of the Main Sequence	<ul style="list-style-type: none"> • <i>The General Manager logs into the HMS.</i> • <i>The General Manager selects the option to generate a guest feedback summary report.</i> • <i>The system retrieves all guest feedback data from the database.</i> • <i>The system analyzes the feedback data and generates a summary report, including metrics such as average ratings, common complaints, and positive feedback.</i> • <i>The system presents the report to the General Manager in a customizable format (e.g., charts, graphs, tables).</i> • <i>The General Manager reviews the report and uses it for decision-making.</i>
Description of the Alternative Sequence	<ul style="list-style-type: none"> • <i>If no feedback data is available: The system notifies the General Manager that no feedback data is available for the selected time period.</i>
Non functional requirements	<i>The report must be generated within 5 seconds of the request. The system must ensure data accuracy and consistency in the report. The report interface must be user-friendly and support filtering by date range, department, or feedback type.</i>

Postconditions	<i>The General Manager has received a summary report of guest feedback.</i>
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UC Name	<i>FR_ADM_02: System Backup and Restore</i>
Summary	<i>Administrator creates backups of critical data or restores the system after failure.</i>
Dependency	
Actors	<i>Primary: Administrator</i>
Preconditions	<i>Administrator has backup/restore privileges. Storage location is accessible and has space.</i>
Description of the Main Sequence	<ul style="list-style-type: none"> • <i>Administrator selects data types to back up (e.g., guest records, bookings).</i> • <i>System encrypts and compresses data.</i> • <i>Backup is stored securely.</i> • <i>Administrator receives a success notification.</i>
Description of the Alternative Sequence	<i>If backup fails (e.g., network error), the system alerts the administrator and retries</i>
Non functional requirements	<i>Availability: Backups must complete within 15 minutes. Security: Data encrypted with AES-256.</i>
Postconditions	<i>Backup is stored securely, or system is restored to the backup state. Audit log records the action.</i>

UC Name	<i>FR_ADM_04: Register New Staff Member</i>
Summary	<i>Administrator registers new staff members by entering personal details, assigning roles/departments, and generating system credentials.</i>
Dependency	
Actors	<i>Primary Actor: Administrator</i>
Preconditions	<i>Administrator has valid credentials and privileges. Required role/department configurations exist.</i>
Description of the Main Sequence	<ul style="list-style-type: none"> • <i>Administrator navigates to the "Staff Registration" interface.</i> • <i>Administrator enters the new staff member's personal details (name, contact info).</i> • <i>Administrator assigns a role (e.g., receptionist, housekeeping) and department (e.g., Front Desk, Housekeeping).</i> • <i>System validates the input data (e.g., unique email, valid department).</i> • <i>System generates a unique username and temporary password.</i> • <i>System saves the new staff account and notifies the Administrator..</i>

Description of the Alternative Sequence	<ul style="list-style-type: none"> • <i>If duplicate employee data (e.g., existing email) is detected: - System rejects the entry and prompts the Administrator to correct it.</i> • <i>If role/department is invalid: - System displays an error and lists valid options.</i>
Non functional requirements	<p><i>Security: Personal data must be encrypted during transmission and storage.</i></p> <p><i>Performance: Registration process completes within 3 seconds.</i></p> <p><i>Compliance: Adhere to GDPR/CCPA for data collection and storage</i></p>
Postconditions	<p><i>New staff member account is created with assigned role/department. - Audit log records the registration action.</i></p>