🔹 1. Endri Baku – Room Booking Lifecycle

🧩 **Diagram Name: RoomBookingState**

📋 **Functional Requirements:**

- **FR_GST_03** – Search available rooms

- **FR_GST_04** – Complete booking

- **FR_GST_05** – Cancel booking

- **FR_GST_06** – Modify booking

- **FR_REC_02** – Receptionist modifies booking

🎭 **Use Cases:**

- **UC_GST_03** – Search for Available Rooms

- **UC_GST_04** – Guest Books on Mobile Guest Portal

- **UC_GST_05** – Guest Cancels Booking

- **UC_GST_06** – Guest Requests Booking Modification

- **UC_REC_02** – Receptionist Modifies Booking

🔄 **States & Transitions:**

State	Description	Possible Transitions
Idle	Guest has not started any search	→ Searching

`Searching`	Guest inputs criteria and browses available rooms	→ `RoomSelected`, `NoResults`
`NoResults`	No rooms match the search filters	→ `Searching`
`RoomSelected`	Guest selects a specific room	→ `BookingInitiated`
`BookingInitiated`	Guest inputs details and submits booking	→ `PendingReceptionistApproval`
`PendingReceptionistApproval`	Booking is waiting for receptionist review	→ `Confirmed`, `Rejected`, `AlternativeOffered`
`AlternativeOffered`	Receptionist offers new room option	→ `Confirmed`, `Rejected`
`Confirmed`	Booking is confirmed	→ `Modified`, `Cancelled`, `CheckedIn`
`Modified`	Guest or receptionist changes booking	→ `Confirmed`, `Cancelled`
`Cancelled`	Booking is cancelled before check-in	—
`CheckedIn`	Guest checks into the hotel	→ `CheckedOut`
`CheckedOut`	Guest leaves and booking is finalized	—

🔹 2. Hazis Voda – Digital Key & Guest Access

🧩 **Diagram Name:** `DigitalKeyState`

📋 **Functional Requirements:**

- **FR_GST_07** – Check-in & digital key creation

- **FR_GST_08** – Guest accesses room via digital key

- **FR_GST_09** – Access hotel facilities with digital key

- **FR_GM_02** – Guest checkout revokes digital key

🦸 Use Cases:

- **UC_GST_07** – Guest Check-in

- **UC_GST_08** – Connect Digital Key to Room Lock

- **UC_GST_09** – Use Digital Key to Access Facilities

- **UC_GST_13** – Checkout and Revoke Key

🔄 States & Transitions:

State	Description	Possible Transitions
Unissued	No digital key exists yet	→ Generated
Generated	Key is created upon check-in	→ Active
Active	Key is usable by guest	→ Revoked, Expired
Revoked	Key is invalidated at checkout	—
Expired	Key duration exceeded (auto-expiry)	—
Error	Key pairing or validation failed	→ Active (after fix), Revoked

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🔹 3. Sidrit Zela – Booking Modification & Reception Dashboard

🧩 Diagram Name: BookingModificationState

📋 Functional Requirements:

- **FR_GST_06** – Guest modifies booking

- **FR_REC_01** – Receptionist views room inventory

- **FR_REC_02** – Receptionist modifies booking

- **FR_DM_01** – Department shift scheduling

🎭 Use Cases:

- **UC_GST_06** – Modify Booking

- **UC_REC_01** – View Room Inventory

- **UC_REC_02** – Modify Booking

🔄 States & Transitions:

State	Description	Possible Transitions
`InitialBooking`	Booking is confirmed	→ `ModificationRequested`
`ModificationRequested`	Guest requests changes	→ `Reviewing`
`Reviewing`	Receptionist reviews request	→ `Approved`, `Rejected`
`Approved`	Change accepted	→ `InitialBooking`
`Rejected`	Change declined	→ `InitialBooking`
`Updated`	Booking modified (special case)	—

🔷 **Jurgen Hila – Billing & Expense Tracking (Updated)**

🧩 **Diagram Name: `GuestBillingState`**

📋 **Functional Requirements (FRs):**

- **FR_GST_10** – Register guest expenses

- **FR_GST_12** – View expenses

- **FR_GST_13** – Final invoice generation and payment at checkout

- **FR_GM_05** – GM access to financial reports

🎭 Use Cases (UCs):

- **UC_GST_10** – Register guest expenses

- **UC_GST_12** – Guest views expenses

- **UC_GST_13** – Checkout and pay itemized invoice

🔄 State Diagram: GuestBillingState

State	Description	Possible Transitions
`InvoiceEmpty`	Guest has no recorded charges yet	→ `AccumulatingCharges`
`AccumulatingCharges`	Expenses (e.g. room service, facilities) are logged in real-time to guest's *interim invoice*	→ `Disputed`, `ReadyToCheckout`
`Disputed`	Guest disputes an item before checkout (view only, no payment)	→ `AccumulatingCharges`
`ReadyToCheckout`	Guest has ended stay and is ready to check out	→ `GeneratingFinalInvoice`
`GeneratingFinalInvoice`	System calculates total and compiles invoice	→ `FinalInvoiceGenerated`

`FinalInvoiceGenerated`	Invoice shown to guest for approval/payment	→ `Paid`, `Disputed`
`Paid`	Guest has paid in full (via app or front desk)	—
`Refunded` *(optional)*	Refund issued after payment (if needed)	—

🔹 5. Orgest Bacova – Housekeeping & Maintenance

🧩 Diagram Name: `RoomCleaningState`

📋 Functional Requirements:

- **FR_GST_15** – Track cleaning schedule

- **FR_HK_02** – Maintenance reporting

- **FR_GST_16** – Urgent cleaning request

- **FR_GST_17** – Submit complaints

🕵️ Use Cases:

- **UC_HK_01/02** – Room cleaning & issue reporting

- **UC_GST_16** – Urgent cleaning

- **UC_GST_17** – Complaint submission

🔄 States & Transitions:

State	Description	Possible Transitions
`NeedsCleaning`	Room ready to be cleaned	→ `Scheduled`
`Scheduled`	Cleaning task assigned	→ `InProgress`

State	Description	Possible Transitions
`InProgress`	Staff is cleaning	→ `Clean`, `MaintenanceIssue`
`Clean`	Room cleaned	—
`MaintenanceIssue`	Issue reported	→ `UnderRepair`
`UnderRepair`	Maintenance ongoing	→ `Clean`

🔹 6. Daron Delvina – Staff Account Lifecycle

🧩 **Diagram Name:** `StaffAccountState`

📋 **Functional Requirements:**

- **FR_ADM_01** – Manage user access

- **FR_ADM_04** – Register new staff

- **FR_FS_01** – View work hours

- **FR_HKM_02** – Assign tasks

🎭 **Use Cases:**

- **UC_FS_01** – View Work Hours

- **UC_ADM_01/04** – Admin manages accounts

🔄 **States & Transitions:**

State	Description	Possible Transitions
`Unregistered`	Staff not yet in system	→ `Registered`
`Registered`	Staff account created	→ `Active`, `PendingVerification`

`Active`	Account in use	→ `Suspended`, `Deleted`
`Suspended`	Temporarily disabled	→ `Active`
`Deleted`	Removed from system	—

🔹 7. Sidrit Isufi – Reports & Analytics

🧩 **Diagram Name:** `ReportGenerationState`

📋 **Functional Requirements:**

- **FR_GM_03** – Access hotel metrics

- **FR_GM_04** – Generate custom reports

- **FR_GM_01** – Post-checkout survey report

🎭 **Use Cases:**

- **UC_GM_01** – Generate Feedback Reports

- Custom filtering/analytics (implied UC)

🔄 **States & Transitions:**

State	Description	Possible Transitions
`Idle`	No report in progress	→ `Generating`
`Generating`	System fetching/analyzing data	→ `Completed`, `Error`
`Completed`	Report ready for viewing	→ `Exported`
`Exported`	Downloaded/exported report	—

Error	Report generation failed	→ Idle

🔹 8. Xhois Cano – Checkout & Feedback Collection

🧩 **Diagram Name: CheckoutAndFeedbackState**

📋 **Functional Requirements:**

- **FR_GST_13** – Checkout and invoice generation

- **FR_GST_14** – Send survey

- **FR_ADM_02** – System recovery (related)

🐬 **Use Cases:**

- **UC_GST_13** – Checkout

- **UC_GST_14** – Send Feedback Survey

- **UC_GM_01** – View Survey Reports

🔄 **States & Transitions:**

State	Description	Possible Transitions
CheckedIn	Guest is staying at hotel	→ InitiateCheckout
InitiateCheckout	Guest triggers checkout	→ GeneratingInvoice
GeneratingInvoice	System compiles charges	→ InvoiceSent
InvoiceSent	Invoice delivered to guest	→ Paid, Disputed
Paid	Payment complete	→ SurveySent

`SurveySent`	Feedback sent to guest	→ `FeedbackReceived`, `NoResponse`
`FeedbackReceived`	Guest completes feedback	—