Software Modeling Design

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_GST_13 – 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