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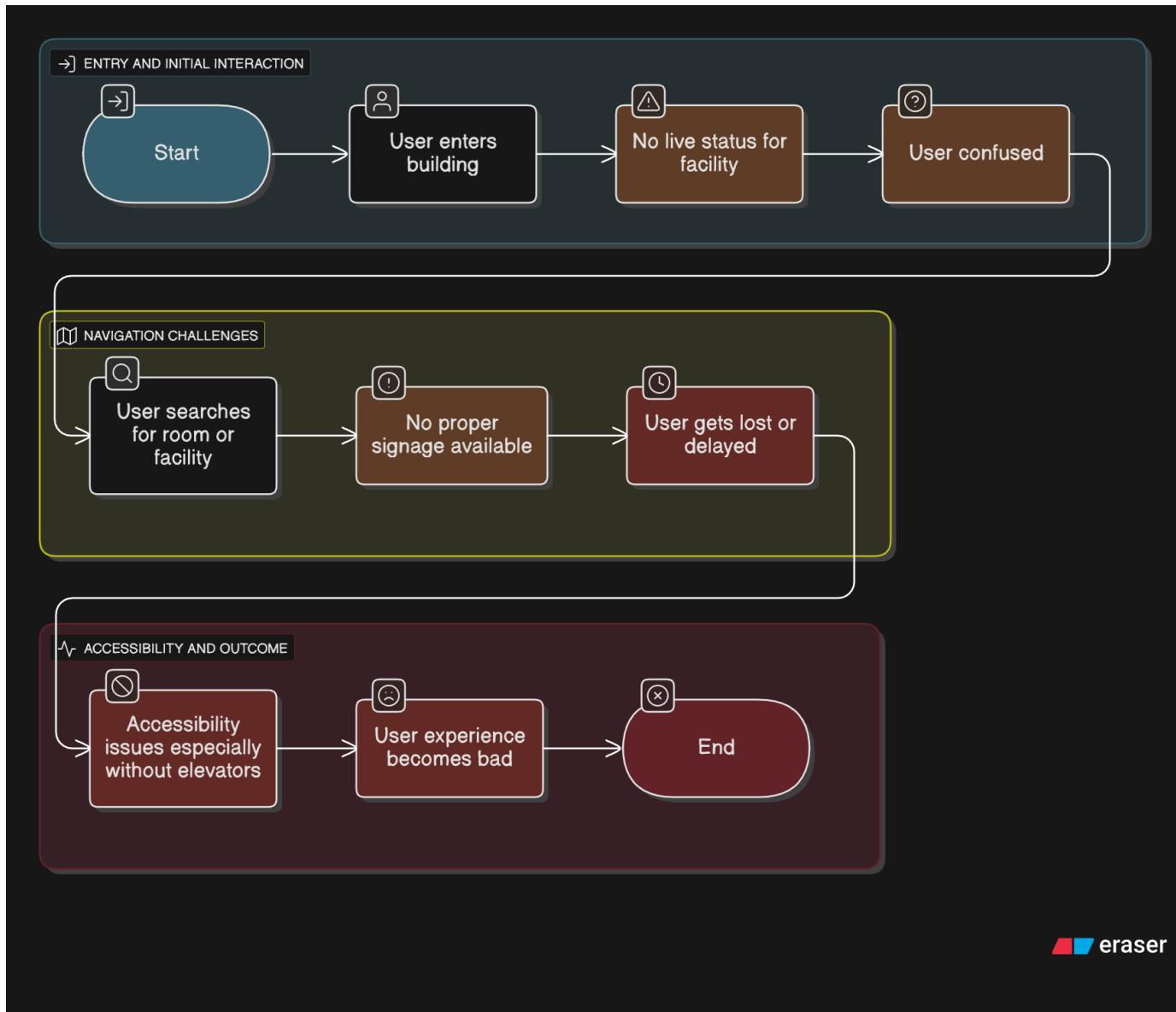
# Academic Task – CA2pt.1(IXD801)

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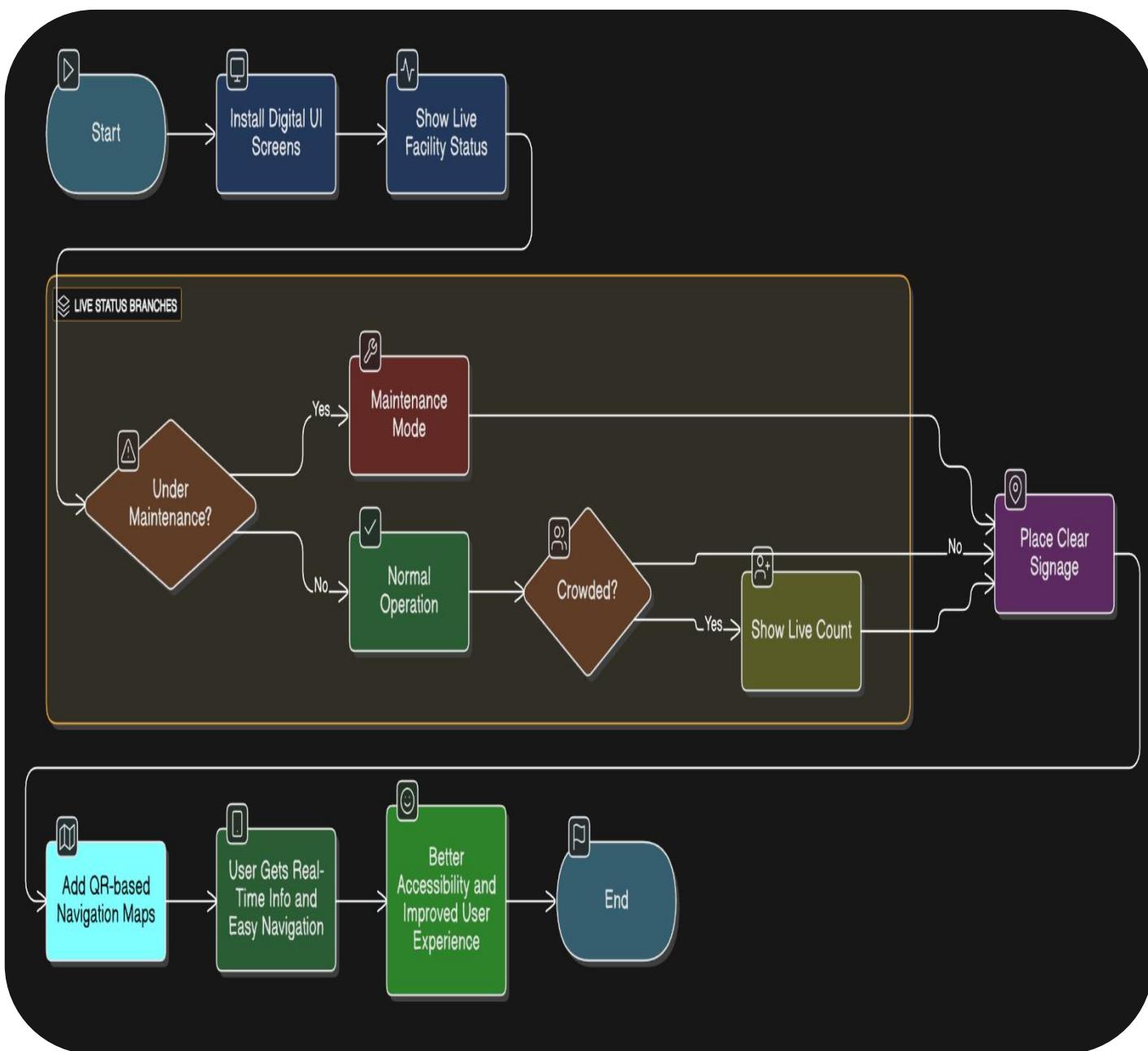
Roll no.: 46

PROBLEM 1: Poor User Interface & Accessibility
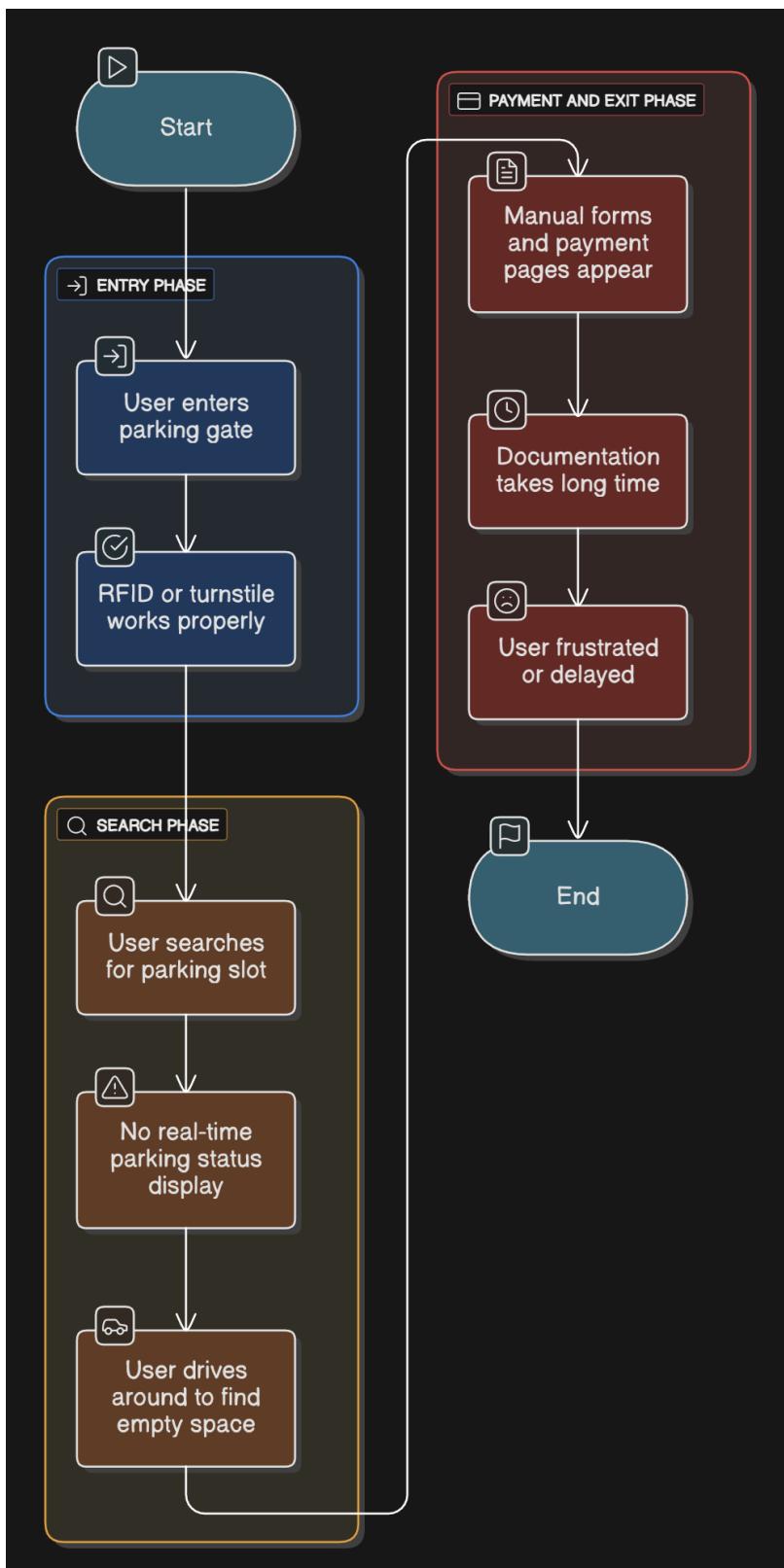
Solution flowchart:

Solution flowchart:

PROBLEM 2: Inefficient Parking Management System

Start

ENTRY PHASE
- User enters parking gate
- RFID or turnstile works properly

SEARCH PHASE
- User searches for parking slot
- No real-time parking status display
- User drives around to find empty space

PAYMENT AND EXIT PHASE
- Manual forms and payment pages appear
- Documentation takes long time
- User frustrated or delayed

End

SOLUTION OF PROBLEM 2:

```mermaid
flowchart TD
    Start([▷ Start])

    subgraph ENTRY_SCAN[→] ENTRY AND SCAN PHASE]
        RFID[((o)) Automatic RFID Scan at Entry]
        Update[⟳ System updates parking slot availability in real time]
    end

    subgraph SLOT[⌖ SLOT ASSIGNMENT AND GUIDANCE PHASE]
        Screen[⬛ Digital Screen Shows]
        Slots[▦ Available Slots]
        Directions[⌲ Directions]
        SlotNum[# User gets a Slot Number Immediately]
    end

    subgraph PAYMENT[▭ PAYMENT PHASE]
        Form[▤ Auto-filled Digital Form]
        Pay[$ Online Payment or Auto-Debit]
    end

    subgraph PARKING[⌕ PARKING AND EXPERIENCE PHASE]
        Parks[☑ User parks without delay]
        Smooth[Smooth]
        Efficient[☺ Efficient Parking Experience]
    end

    End([⚑ End])

    Start --> RFID
    RFID --> Update
    Update --> Screen
    Screen --> Slots
    Screen --> Directions
    Slots --> SlotNum
    Directions --> SlotNum
    SlotNum --> Form
    Form --> Pay
    Pay --> Parks
    Parks --> Smooth
    Parks --> Efficient
    Smooth --> End
    Efficient --> End
```

Start

ENTRY AND SCAN PHASE
- Automatic RFID Scan at Entry
- System updates parking slot availability in real time

SLOT ASSIGNMENT AND GUIDANCE PHASE
- Digital Screen Shows
  - Available Slots
  - Directions
- User gets a Slot Number Immediately

PAYMENT PHASE
- Auto-filled Digital Form
- Online Payment or Auto-Debit

PARKING AND EXPERIENCE PHASE
- User parks without delay
  - Smooth
  - Efficient Parking Experience

End