



INTEL UNNATI INDUSTRIAL TRAINING

PROBLEM STATEMENT

ATP MACHINE CONTROLLER

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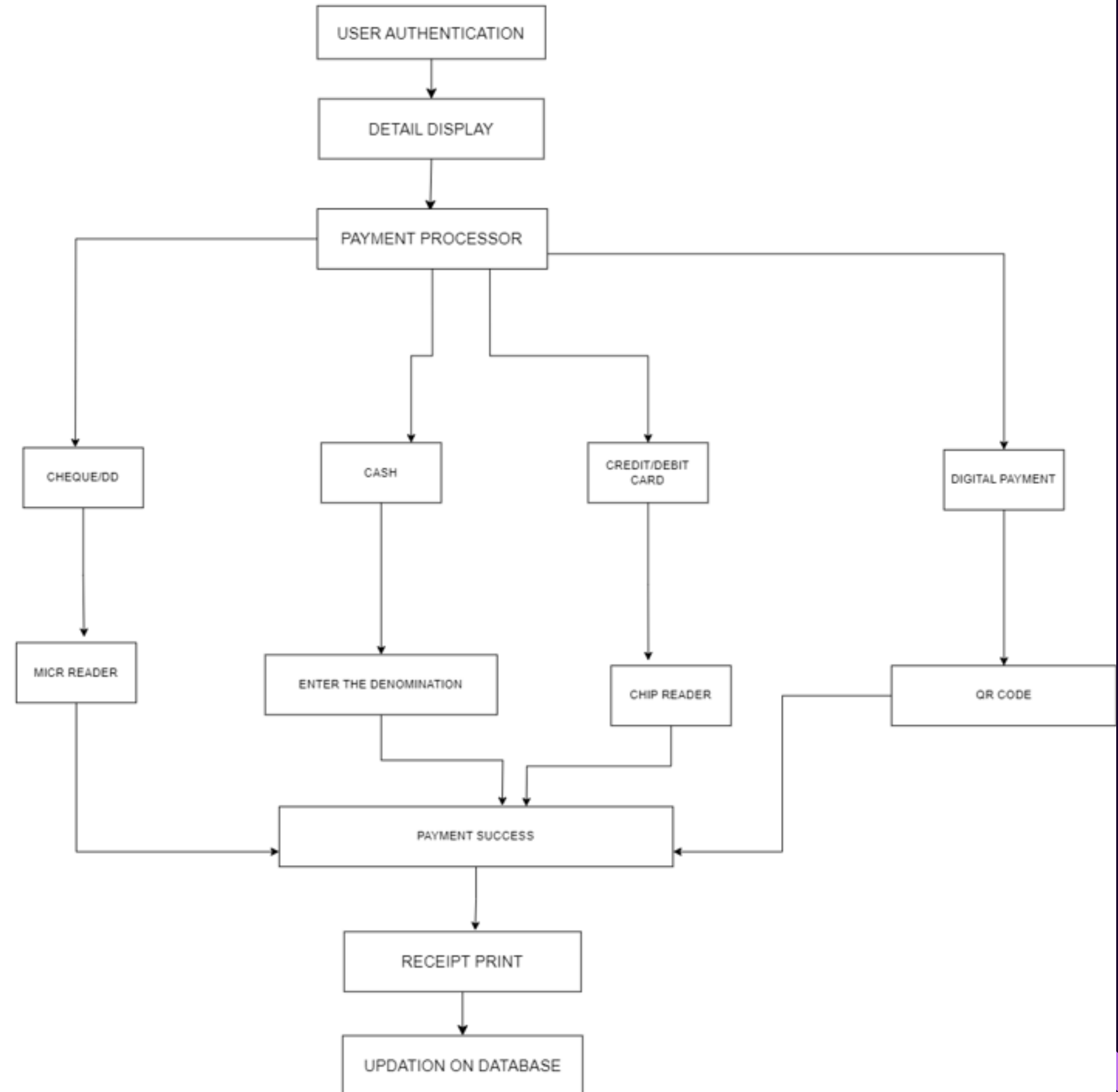


Description

- Designed to collect payment from consumers by cash, cheque, or DD
- Unmanned and can be operated by the customers 24/7.
- Accepts cash/cheque/DD/pay order,
- issues an acknowledgment on every payment made
- Touchscreen and multimedia-based system



BLOCK DIAGRAM





FSM (Mealy)



STATE

Start

Idle

Verification

Payment processing

Reading MICR or Chip data

Generating Acknowledgement

Reset

INPUT

-

Service number and area code

-

Cheque/DD insertion
Credit/Debit card insertion
QR Code scanning, Cash insertion

-

-

-

NEXT STATE

Idle

Verification

Payment processing

MICR Reading
Chip Reading
Generating Acknowledgement

Generating Acknowledgement

Reset

Idle



Valid Test Cases



01

Test Case 1: Cash Payment

Input: Barcode Scan = 1, Payment Mode Selection = "Cash", Cash Insertion = 1

Expected Output: Bill Information displayed on the monitor, Cash Insertion Prompt displayed, Bill Payment Confirmation = "Payment amount confirmed", Acknowledgment Receipt printed

02

Test Case 2: Cheque Payment

Input: Barcode Scan = 1, Payment Mode Selection = "Cheque", Cheque Insertion = 1

Expected Output: Bill Information displayed on the monitor, Cheque Reading = "Reading MICR fields from the cheque", Bill Payment Confirmation = "Payment amount confirmed", Acknowledgment Receipt printed

03

Test Case 3 Invalid Barcode Scan

Input: Barcode Scan = 0

Expected Output: No change in state, no output

04

Test Case 4 Reset System

Input: Reset = 1

Expected Output: System resets to initial state, no output



**THANK
YOU**

