Team Name: Paradigm
Project Name: Medisafe

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Program used for nurses to track patient needs while admitted. Including: Appointments, drug schedule, feeding schedule, patient location, previous medical history, and potential surgeries

Context Diagram

System
- Nurses
- Doctors
- Pharmacists
- Immediate Family of patient

Level 0

Authentication 1.0

Processes
- Employee login
- Receiving Credentials
- Verifying Credentials
- Granting Access

Data
- Hospital Credentials Database)

Drug administration 2.0 (Drug, Dosage, time interval, duration of prescription)

Processes
- Add new prescription 2.1 (send: new prescription data, drug, dosage receive: Confirmation of addition)
- Remove prescription 2.2 (send: prescription to be removed receive: confirmation)
- Edit dosage 2.3 (send prescription to be changed and new dosage value receive: confirmation)

Data
- Hospital Pharmacy records
- Pharmacy stock records
- Criminal history database

In/out patient Log 3.0 (in/out time, location, reason)

Processes
- New patient entry 3.1 (stores patient information to current admitted patients, and stores info in hospital patient records)
- Remove patient entry 3.2 (removes patient information from only admitted patients)
- Check patient location 3.3 (returns patients current location hospital unit, room number)
- Change patient location 3.4 (edits all data except name)

Data
- Hospital patient admission database
- Appointment scheduling data attached to 4.0
- Individual records for each unit of hospital

Appointment Scheduling 4.0 (time and location)

Processes
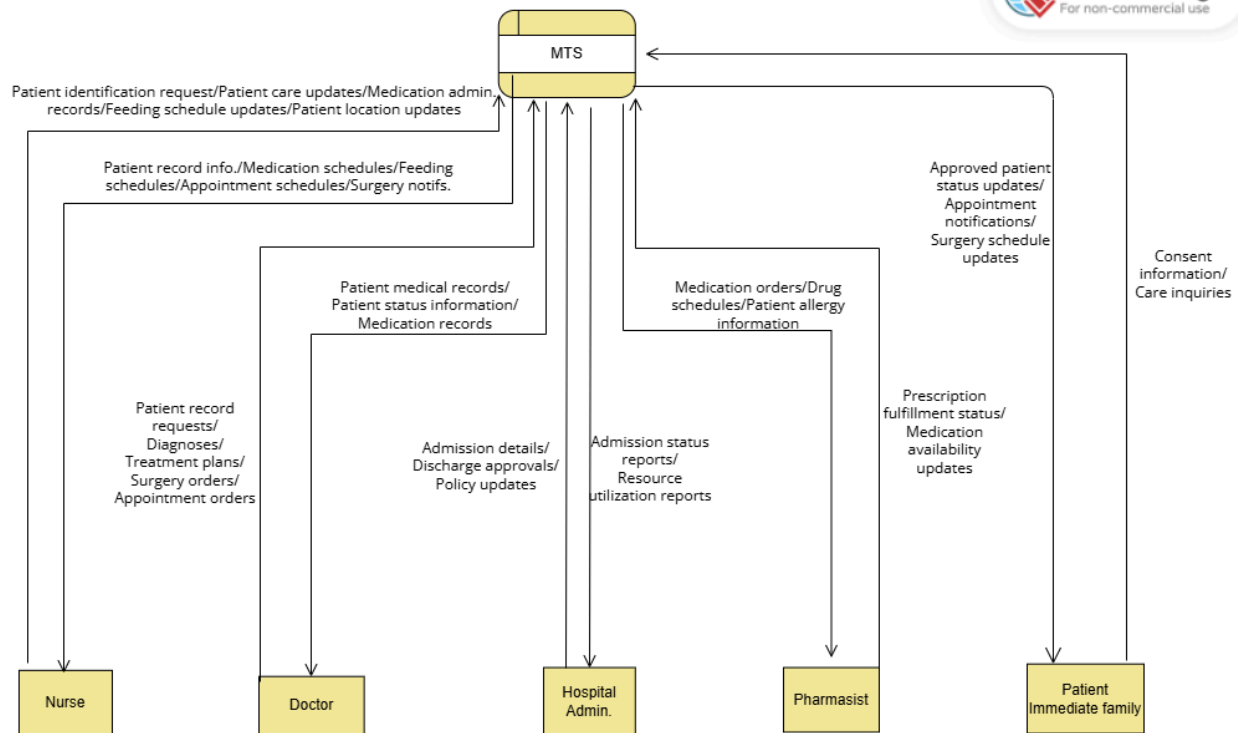- Schedule new appointment 4.1 (sends: time slot and duration for appointment received: if time slot is available for scheduling)
- Remove appointment 4.2 (sends, time slot for appointment to be removed: receives: confirmation of data removal)
- Change appointment details 4.3 (Sends: information change receives: confirmation of calendar change)

Data
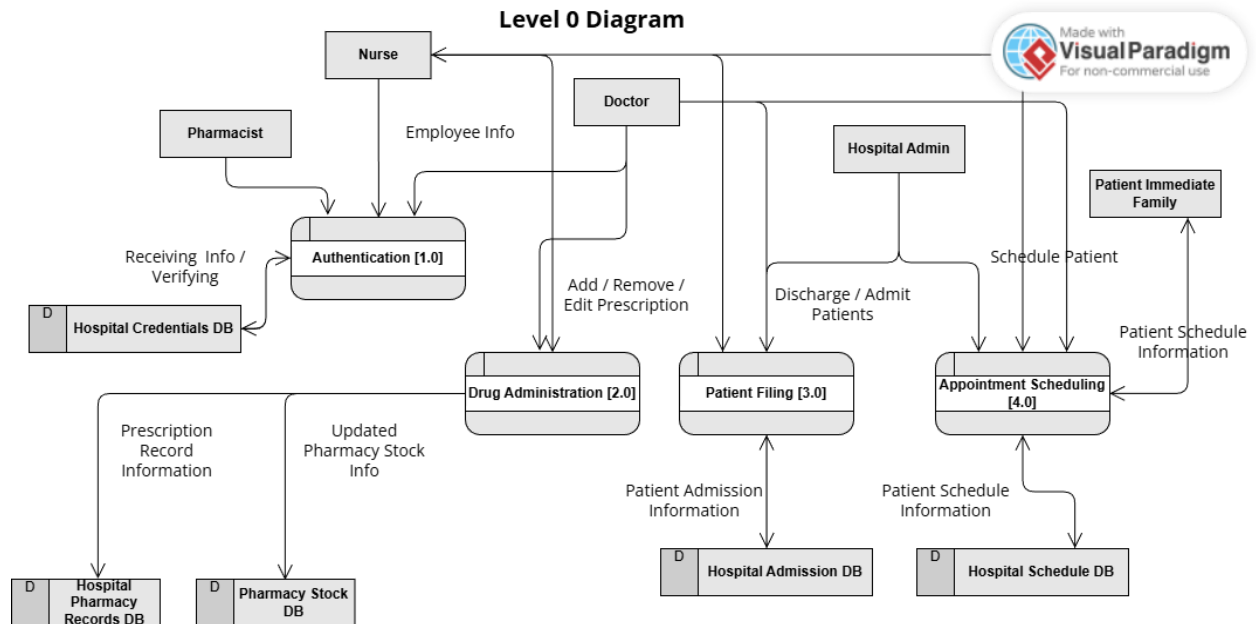- Hospital staff scheduling calendar (connects to all three processes)

Context Diagram

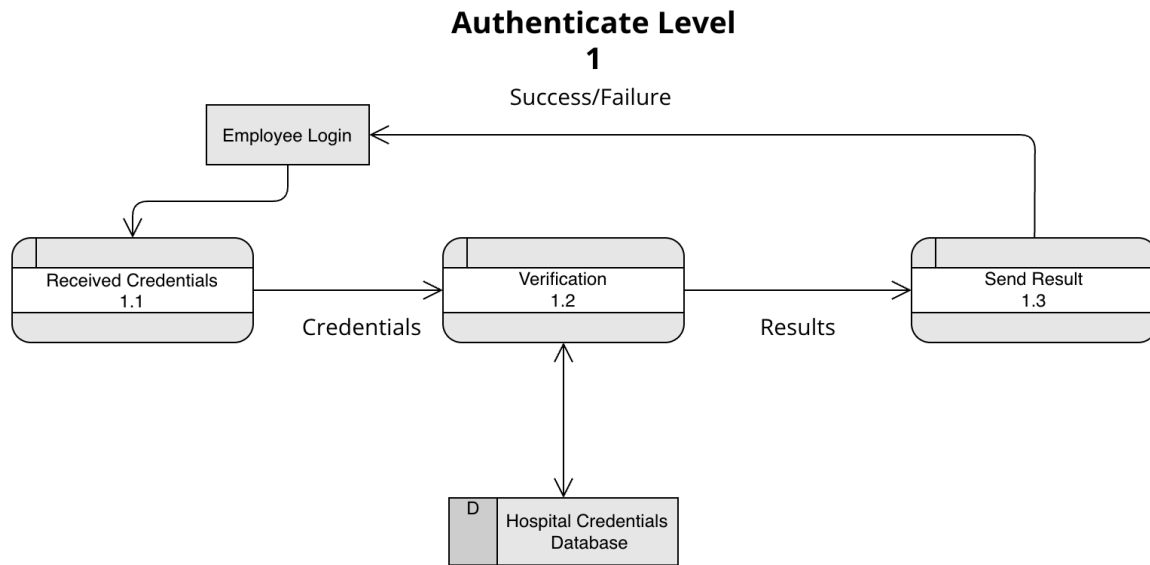### CONTEXT DIAGRAM MEDICAL TRACKING SYSTEM (MTS)

MTS

Patient identification request/Patient care updates/Medication admin. records/Feeding schedule updates/Patient location updates

Patient record info./Medication schedules/Feeding schedules/Appointment schedules/Surgery notifs.

Patient medical records/ Patient status information/ Medication records

Medication orders/Drug schedules/Patient allergy information

Approved patient status updates/ Appointment notifications/ Surgery schedule updates

Consent information/ Care inquiries

Patient record requests/ Diagnoses/ Treatment plans/ Surgery orders/ Appointment orders

Admission details/ Discharge approvals/ Policy updates

Admission status reports/ Resource utilization reports

Prescription fulfillment status/ Medication availability updates

Nurse

Doctor

Hospital Admin.

Pharmasist

Patient Immediate family

Level 0

Level 0 Diagram

Nurse

Doctor

Pharmacist

Hospital Admin

Patient Immediate Family

Employee Info

Receiving Info / Verifying

Authentication [1.0]

D Hospital Credentials DB

Add / Remove / Edit Prescription

Discharge / Admit Patients

Schedule Patient

Patient Schedule Information

Drug Administration [2.0]

Patient Filing [3.0]

Appointment Scheduling [4.0]

Prescription Record Information

Updated Pharmacy Stock Info

Patient Admission Information

Patient Schedule Information

D Hospital Pharmacy Records DB

D Pharmacy Stock DB

D Hospital Admission DB

D Hospital Schedule DB

Level 1

Authenticate Level 1

Success/Failure

Employee Login

Received Credentials
1.1

Credentials

Verification
1.2

Results

Send Result
1.3

D | Hospital Credentials Database
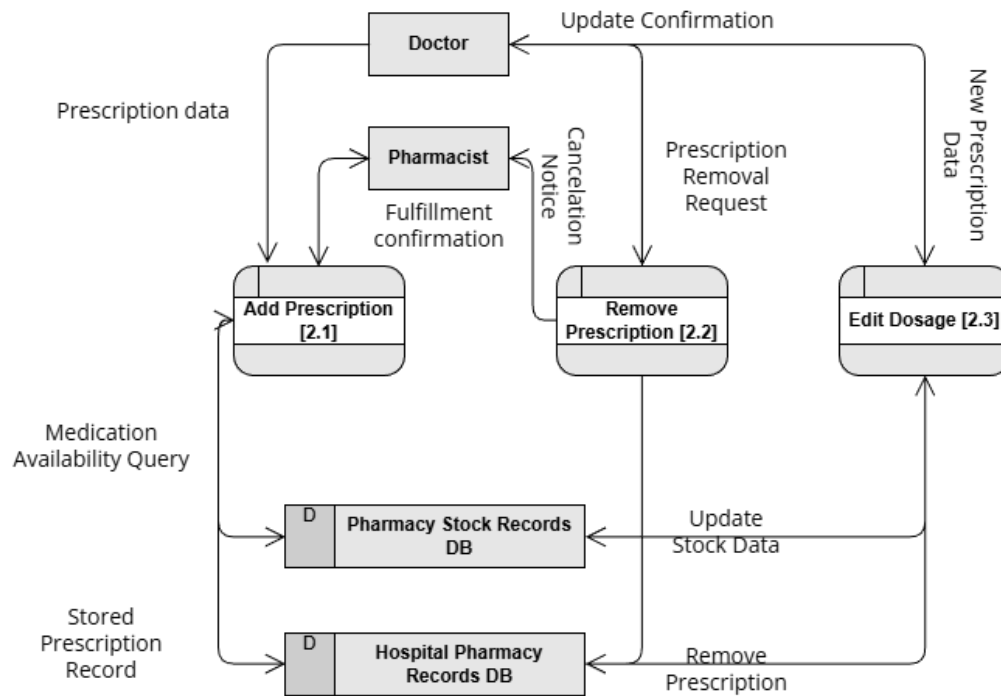
- Verification 1.2

IF employee is not logged in THEN
      IF username and password is correct THEN
          Log In
      ELSE
          Reject
      END
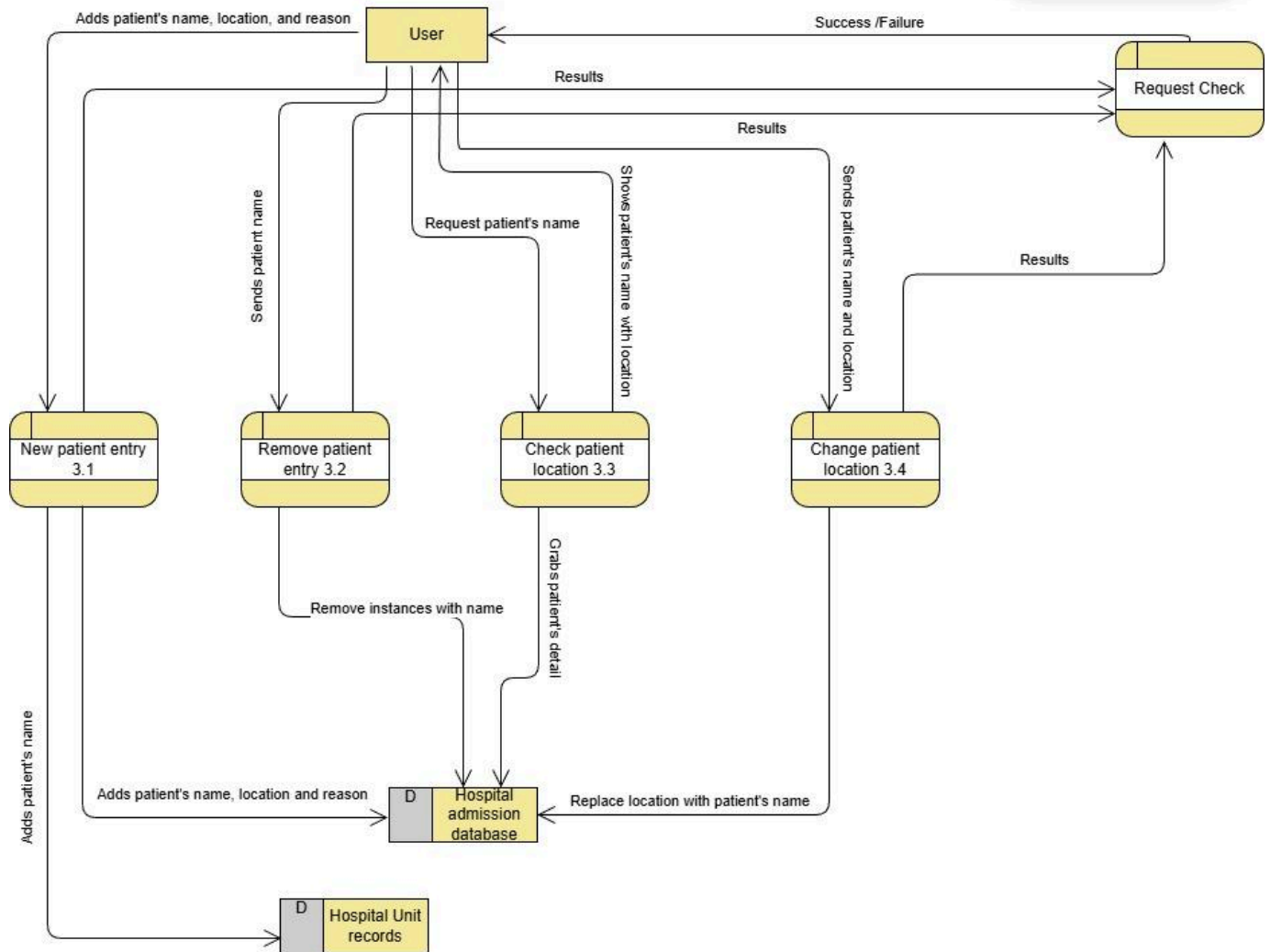ELSE
      Log Out
ENDIF

Drug Administration Level 1

Doctor

Update Confirmation

Prescription data

Pharmacist

Fulfillment confirmation

Cancelation Notice

Prescription Removal Request

New Prescription Data

Add Prescription [2.1]

Remove Prescription [2.2]

Edit Dosage [2.3]

Medication Availability Query

D Pharmacy Stock Records DB

Update Stock Data

Stored Prescription Record

D Hospital Pharmacy Records DB

Remove Prescription

- Edit Dosage 2.3

IF patient name match records
        remove old prescription
THEN add new prescription
ENDIF

In/out Patient Log
Level 1

Adds patient's name, location, and reason

User

Success /Failure

Request Check

Results

Results

Sends patient name

Request patient's name

Shows patient's name with location

Sends patient's name and location

Results

New patient entry 3.1

Remove patient entry 3.2

Check patient location 3.3

Change patient location 3.4

Remove instances with name

Grabs patient's detail

Adds patient's name

Adds patient's name, location and reason

D Hospital admission database

Replace location with patient's name

D Hospital Unit records

- Change patient location 3.4
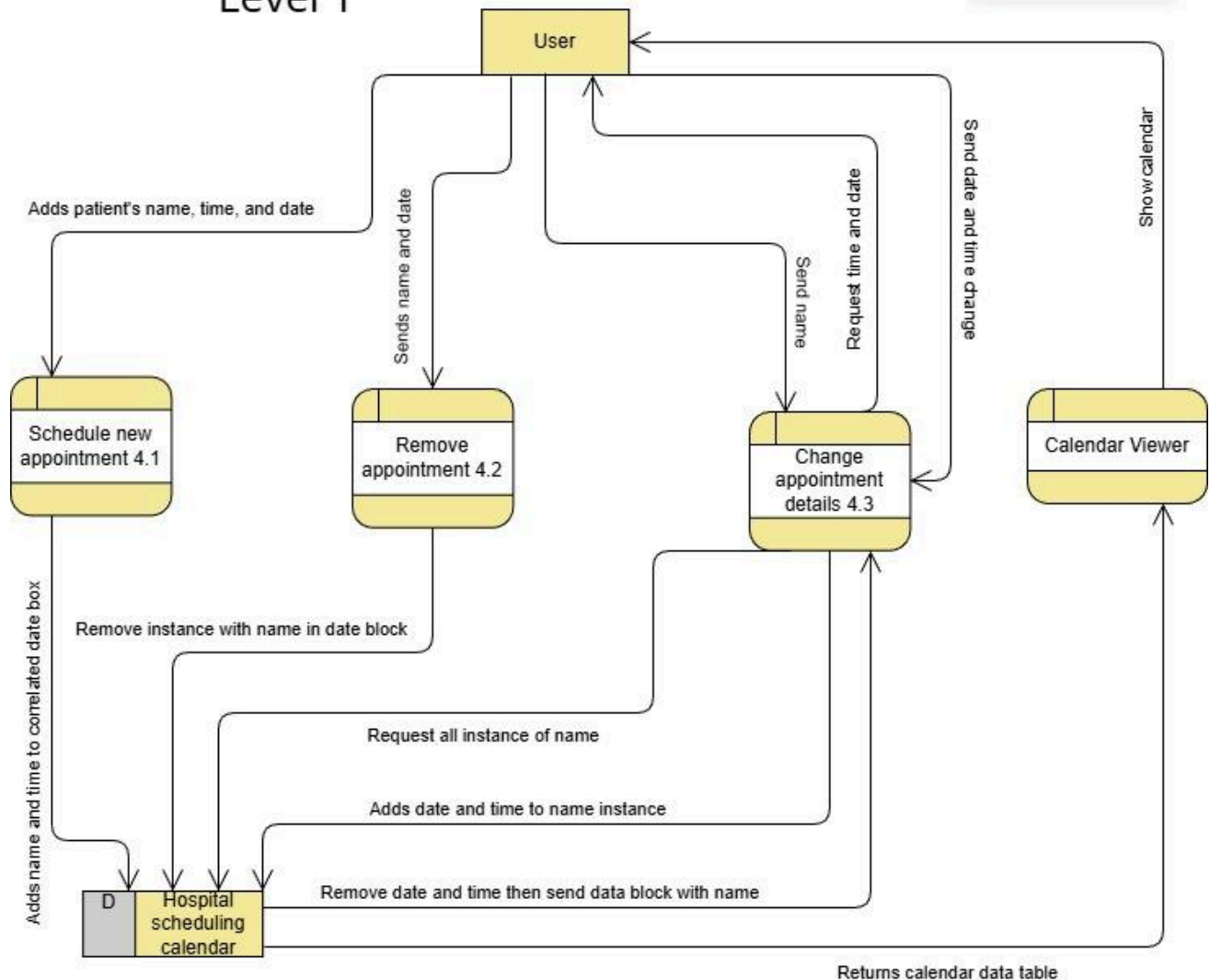
IF patient name match database
    remove old location
THEN add new location
ELSE send fail message
ENDIF

Appointment Scheduling
Level 1

Project Update: use case diagram, ERD, Gantt Chart (due feb 26)

1. List all the use cases of your system using the template provided in class and on Canvas

2. Draw a use case diagram indicate how the main actors interact with the system

3. Produce a detailed requirements specification document using the templates provided

4. Produce an ERD as demoed in class