

Tutorial 4

Date: 27-08-2022

Deadline to Submit: 05-09-2022

Submission Guidelines: Make a final pdf (handwritten) and submit it to the classroom.

Q 1. Give a complete description of a hospital management system and draw level -0 DFD for the given system.

Describe the system as Events, Processes and people involved. E.g.

Patients, Doctors, Paramedics, Nurses

Events can be Emergency, OPD, surgeries, workshops

Processes can be new patient registration, new staff regi., patients assigned to doctor, prescriptions record, patient history records, operations records, bills, accounts, medicines and equipment stocks, feedback forms etc.

Q 2. Then refine the above DFD up to a level where all of them are decomposed sufficiently.

Q 3. What are three major types of processes in DFD? How you would identify errors in processes of DFD?

Q4. Draw Context diagram for Face detection attendance System and Water Level Alert System of a Dam.

Face Detection system: Input- visual/ a face

Process: to search database and match face, update as present

Output to user : You are marked present (message)

Output to system: Updated today's database of students attendance

Water level alert system (you can take dummy data of safe level such as 136 ft. total height, and 130 ft. maximum level, above it is danger, while inflow <= outflow

128 ft. maximum when inflow >outflow)

Input: Continuous sensor data of water presence / submerged in water

Process: to check with past databases of floods, inflow and outflow

Output: Water is at safe/maximum /danger level and send signals to other devices if at danger level