



# University of Central Punjab

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**FACULTY OF INFORMATION  
TECHNOLOGY**

## **Introduction to Database System**

### **Lab 01**

**Section:  
Spring - 20**

## Hospital Management System

Jinnah hospital wants to manage its record using file system. The software needs to store information regarding their Dentists, Patients, appointments, Nurses, procedures and costs.

- The hospital can have many dentists. Each Dentist will have an Id and name. Any dentist can perform procedure on any patient along with any Nurse based on her availability.
- A patient having id and name can make appointment from any dentist.
- A nurse can help any dentist in performing procedures in Operation Theater.

Following Table includes the information.

DenId	DenName	PatNo	PatName	AppNo	AppDate	NurNo	NurName	Procedure	Cost
D1	Smith	P1	Jones	A1	1/02/09	N1	Green	Filling	300
D1	Smith	P1	Jones	A2	1/03/09	N1	Green	Filling	300
D1	Smith	P2	Patel	A3	3/01/09	N2	Sarah	Canal	1000
D2	Barky	P3	Thom	A4	6/03/09	N3	Brown	Crown	700
D3	Thomas	P4	Ronnie	A5	8/06/09	N4	Cann	Filling	300
D4	Sam	P5	Emily	A6	9/07/09	N1	Green	Canal	1000
D2	Barky	P6	Sana	A7	8/07/09	N2	Sarah	Canal	1000

### Task 1

Create the above-mentioned table into comma separated value file (HospRecord.csv) programmatically in C++.

Output should be in this format:

D1, Smith, p1, Jones, A1, 1/02/09,N1, Green, Filling, 300

D1, Smith, p1, Jones, A2, 1/03/09,N1, Green, Filling, 300

## Task 2

Now more patients have made appointments. So to mange new records.

Insert the following record into file (HospRecord.csv) in append mode.

<u>DenId</u>	<u>DenName</u>	<u>PatNo</u>	<u>PatName</u>	<u>AppNo</u>	<u>AppDate</u>	<u>NurNo</u>	<u>NurName</u>	<u>Procedure</u>	<u>Cost</u>
D1	Smith	P1	Jones	A8	11/02/09	N3	Brown	Filling	300
D2	Barky	P7	Coral	A9	18/03/09	N1	Green	Canal	1000
D5	Bond	P8	Jonson	A10	31/01/09	N2	Sarah	Canal	1000

## Task 3

Perform the following tasks.

- Patient name "Jonson" wants to cancel appointment with Dr. Bond and now he wants to consult Dr. Smith for filling procedure on 1/06/09.
- Dr. Smith has become Head of dental department so now he wants to increase his Filling procedure fee from 300 to 500.

Output the updated record on console.

## Task 4

Perform the following tasks.

- Patient name "Coral" is not satisfied with her Root Canal Procedure. She wants to consult another doctor in new hospital. So delete the complete record against Coral.
- Nurse name "Sarah" has left hospital due to her personal issues. Now delete the entire record in which Sarah is involved.

Output the updated record on console.

## Task 5

Perform the following tasks.

- Hospital Management wants to know about clientage of Dr. Barky. How much patients have booked appointment with him. Print name of those patients who have booked appointment from Dr. Barky.
- Patient name "Jones" wants to see his Filling procedure record after date "3/02/09".Print the record on console accordingly.