DBMS(CI-405)

Assignment no: 02

Date of Submission : 3/5/2024

Question no. 01

Publication Database Design

author(author id, f irst name, last name)

author pub(author id, pub id, author position)

book(book id, book title, month, year, editor)

pub(pub id, title, book id)

• author id in author pub is a foreign key referencing author

• pub id in author pub is a foreign key referencing pub

• book id in pub is a foreign key referencing book

• editor in book is a foreign key referencing author(author id)

Write Relational algebra query for following ;also write output relation

1. Display books title.
2. Display names of authors who are not book editors.
3. Display the names of all authors who are book editors
4. Display the names of all authors who have at least one publication in the database.
5. Display Which authors authored a pub that was published in July.

r(author)

author_id	first_name	last_name
1	John	McCarthy
2	Dennis	Ritchie
3	Ken	Thompson
4	Claude	Shannon
5	Alan	Turing
6	Alonzo	Church
7	Perry	White
8	Moshe	Vardi
9	Roy	Batty

r(author_pub)

author_id	pub_id	author_position
1	1	1
2	2	1
3	2	2
4	3	1
5	4	1
5	5	1
6	6	1

r(book)

book_id	book_title	month	year	editor
1	CACM	April	1960	8
2	CACM	July	1974	8
3	BST	July	1948	2
4	LMS	November	1936	7
5	Mind	October	1950	NULL
6	AMS	Month	1941	NULL
7	AAAI	July	2012	9
8	NIPS	July	2012	9

r(pub)

pub_id	title	book_id
1	LISP	1
2	Unix	2
3	Info Theory	3
4	Turing Machines	4
5	Turing Test	5
6	Lambda Calculus	6

Figure 1: Relational Database Schema

Question no. 02

Write a SQL Queries for following; also write output relation

1. Create Employee{ Emp_id, Fname, Lname, DEPT};
2. Alter Table Employee{ Emp_id, Fname, Lname, DEPT, Salary};
3. Alter table Employee {Emp_id,Emp_name,Dept, Salary};
4. Display details of all employees having salary above 50000;
5. Update Department of employee whose name is “Ramanuj”;
6. Delete employee with emp_id 101
7. Create dept{Dept_id,dept_name, Emp_id}
   Make emp_id Foreign key.