Class: COMP 3090 - Database I

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**FINAL PROJECT**

**DESIGNING MICROSOFT ACCESS PROJECT**

**Defining and Querying Database in SQL**

1. **List all doctors’ name.**

SELECT D\_NAME

FROM Doctors;

| **Query1** |
| --- |
| **D\_NAME** |
| JAMES SMITH |
| JOHN JOHNSON |
| ROBERT WILLIAMS |
| MICHAEL JONES |
| WILLIAM BROWN |
| MARY SMITH |
| PATRICIA JOHNSON |
| LINDA WILLIAMS |
| BARBARA JONES |
| ELIZABETH BROWN |

1. **Find all the test results of cancer patients.(Note: There may be different type of cancer) (Your result should display patient's name, disease and result.)**

SELECT P.P\_NAME, P.P\_DISEASE, T.T\_RESULT

FROM Patients P, Tests T

WHERE P.P\_ID = T.P\_ID AND P.P\_DISEASE ALIKE "%cancer%";

| **Query2** | | |
| --- | --- | --- |
| **P\_NAME** | **P\_DISEASE** | **T\_RESULT** |
| SANDRA MARTIN | Bladder Cancer | Positive |
| MARK WHITE | Prostate Cancer | Negative |
| HELEN HARRIS | Cancer | Positive |

1. **List all the doctors who are consulted by a patient names "RICHARD MILLER". (Your result should display doctor's name.)**

SELECT D.D\_NAME

FROM Patients P, Doctors D, P\_assignment A

WHERE D.D\_ID = A.D\_ID

AND P.P\_ID = A.P\_ID

AND P.P\_NAME="RICHARD MILLER";

| **Query3** |
| --- |
| **D\_NAME** |
| PATRICIA JOHNSON |
| WILLIAM BROWN |

1. **Find the most experienced doctor in the hospital. (Your result should display both doctor's name and the years of his/her experience.)**

SELECT D\_NAME, D\_YEARS\_OF\_EXPERIENCE

FROM Doctors

WHERE D\_YEARS\_OF\_EXPERIENCE >= ALL (SELECT D\_YEARS\_OF\_EXPERIENCE FROM Doctors);

| **Query4** | |
| --- | --- |
| **D\_NAME** | **D\_YEARS\_OF\_EXPERIENCE** |
| ELIZABETH BROWN | 31 |

1. **List all the patients who live in the same street and same city as of doctor "JAMES SMITH". (Your result should display patients' name.)**

SELECT P.P\_NAME

FROM Patients P, Doctors D, P\_assignment A

WHERE D.D\_NAME = "JAMES SMITH"

AND D.D\_ID = A.D\_ID

AND P.P\_ID = A.P\_ID

AND D.D\_STREET = P.P\_STREET

AND D.D\_CITY = P.P\_CITY;

| **Query5** |
| --- |
| **P\_NAME** |
| BETTY WHITE |

1. **Find the patients who had assignment at least two doctors. (Your result should display patient's name.)**

SELECT P.P\_NAME, Count(A.D\_ID) AS AssignedDoctor

FROM Patients P, P\_assignment A

WHERE P.P\_ID = A.P\_ID

GROUP BY P.P\_NAME

HAVING Count(A.D\_ID) > 1;

| **Query6** | |
| --- | --- |
| **P\_NAME** | **AssignedDoctor** |
| ANTHONY RODRIGUEZ | 2 |
| BETTY WHITE | 3 |
| BRIAN ROBINSON | 2 |
| CAROL GARCIA | 3 |
| CHARLES WILSON | 2 |
| CHRISTOPHER ANDERSON | 3 |
| DAVID DAVIS | 2 |
| DEBORAH WALKER | 2 |
| DONALD HARRIS | 2 |
| DONNA THOMPSON | 3 |
| DOROTHY TAYLOR | 2 |
| HELEN HARRIS | 2 |
| JASON LEE | 2 |
| KAREN JACKSON | 4 |
| KENNETH THOMPSON | 3 |
| KEVIN LEWIS | 2 |
| KIMBERLY LEE | 4 |
| LAURA RODRIGUEZ | 2 |
| LISA ANDERSON | 2 |
| MARIA MILLER | 2 |
| MATTHEW WALKER | 2 |
| MICHELLE CLARK | 2 |
| NANCY THOMAS | 3 |
| RICHARD MILLER | 2 |
| RUTH MARTINEZ | 2 |
| SARAH LEWIS | 3 |
| SHARON ROBINSON | 2 |
| STEVEN GARCIA | 3 |

1. **Find the patient who has not taken any tests yet. (Your result should display patient's name.)**

SELECT P\_NAME

FROM Patients

WHERE P\_ID NOT IN (SELECT P\_ID FROM Tests GROUP BY P\_ID);

| **Query7** |
| --- |
| **P\_NAME** |
| GEORGE MARTIN |
| RONALD CLARK |
| ANTHONY RODRIGUEZ |
| KEVIN LEWIS |
| JASON LEE |
| MATTHEW WALKER |
| SUSAN WILSON |
| MARGARET MOORE |

1. **List the doctors and the number of patients they have assigned in the descending order. (Your result should display doctor's name and the number of their patients.)**

SELECT D.D\_NAME, Count(A.P\_ID) AS NumberOfPatients

FROM Doctors D, P\_assignment A

WHERE D.D\_ID = A.D\_ID

GROUP BY D.D\_NAME

ORDER BY Count(A.P\_ID) DESC;

| **Query8** | |
| --- | --- |
| **D\_NAME** | **NumberOfPatients** |
| PATRICIA JOHNSON | 13 |
| MARY SMITH | 11 |
| LINDA WILLIAMS | 11 |
| JAMES SMITH | 10 |
| WILLIAM BROWN | 8 |
| MICHAEL JONES | 7 |
| JOHN JOHNSON | 7 |
| ELIZABETH BROWN | 5 |
| BARBARA JONES | 5 |
| ROBERT WILLIAMS | 3 |

1. **Increment years of experience of all the doctors by 1.**

UPDATE Doctors

SET D\_YEARS\_OF\_EXPERIENCE = D\_YEARS\_OF\_EXPERIENCE + 1;

1. **Delete all the tests whose result is negative.**

DELETE T\_RESULT

FROM Tests

WHERE T\_RESULT = "Negative";