**Homework # 4**

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9.10E

**Problem 1:**

WITH RECURSIVE Prerequisites AS (

SELECT c.coursenr, c.coursename

FROM COURSE c

JOIN PRE-REQUISITE pr ON c.coursenr = pr.pre\_req\_coursenr

WHERE c.coursename = 'Principles of Database Management'

UNION ALL

SELECT c.coursenr, c.coursename

FROM COURSE c

JOIN PREREQUISITE pr ON c.coursenr = pr.pre\_req\_coursenr

JOIN Prerequisites p ON pr.coursenr = p.coursenr

)

SELECT DISTINCT coursename

FROM Prerequisites;

**Problem 2:**

CREATE VIEW CustomerOrderValue AS

SELECT

c.customerNumber,

c.customerName,

SUM(od.quantityOrdered \* od.priceEach) AS totalOrderValue

FROM customers c

JOIN orders o ON c.customerNumber = o.customerNumber

JOIN orderdetails od ON o.orderNumber = od.orderNumber

WHERE o.status = 'Shipped'

GROUP BY c.customerNumber, c.customerName;

**Problem 3:**

**SELECT productCode, totalProfit**

**FROM (**

**SELECT**

**p.productCode,**

**SUM((od.priceEach - p.buyPrice) \* od.quantityOrdered) AS totalProfit**

**FROM products p**

**JOIN orderdetails od ON p.productCode = od.productCode**

**GROUP BY p.productCode**

**) AS ProductProfits**

**ORDER BY totalProfit DESC**

**LIMIT 5;**

**Problem 4:**

1. CREATE PROCEDURE customers\_details()

BEGIN

SELECT \* FROM customers;

END;

--To execute

CALL customers\_details();

CREATE PROCEDURE In\_process\_order()

BEGIN

SELECT c.customerNumber, c.customerName, c.phone

FROM customers c

JOIN orders o ON c.customerNumber = o.customerNumber

WHERE o.status = 'In Process'**;**

**END;**

--To execute

CALL In\_process\_order();

1. **CREATE PROCEDURE office\_insert(IN officeCode VARCHAR(10), IN city**

**BEGIN**

**INSERT INTO offices (officeCode, city)**

**VALUES (officeCode, city);**

**END;**

**--To execute**

**CALL office\_insert('10', 'New York');**