



# COVER SHEET

**CIS2360: Relational Databases and Web Integration (Dr David Wilson)**

**COURSEWORK**

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You are confirming that this assignment is wholly your own work unless otherwise clarified and correctly referenced as required by the appropriate referencing protocols.

If you do not receive an email receipt for this work within two working days, please contact your School office.

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For office use only

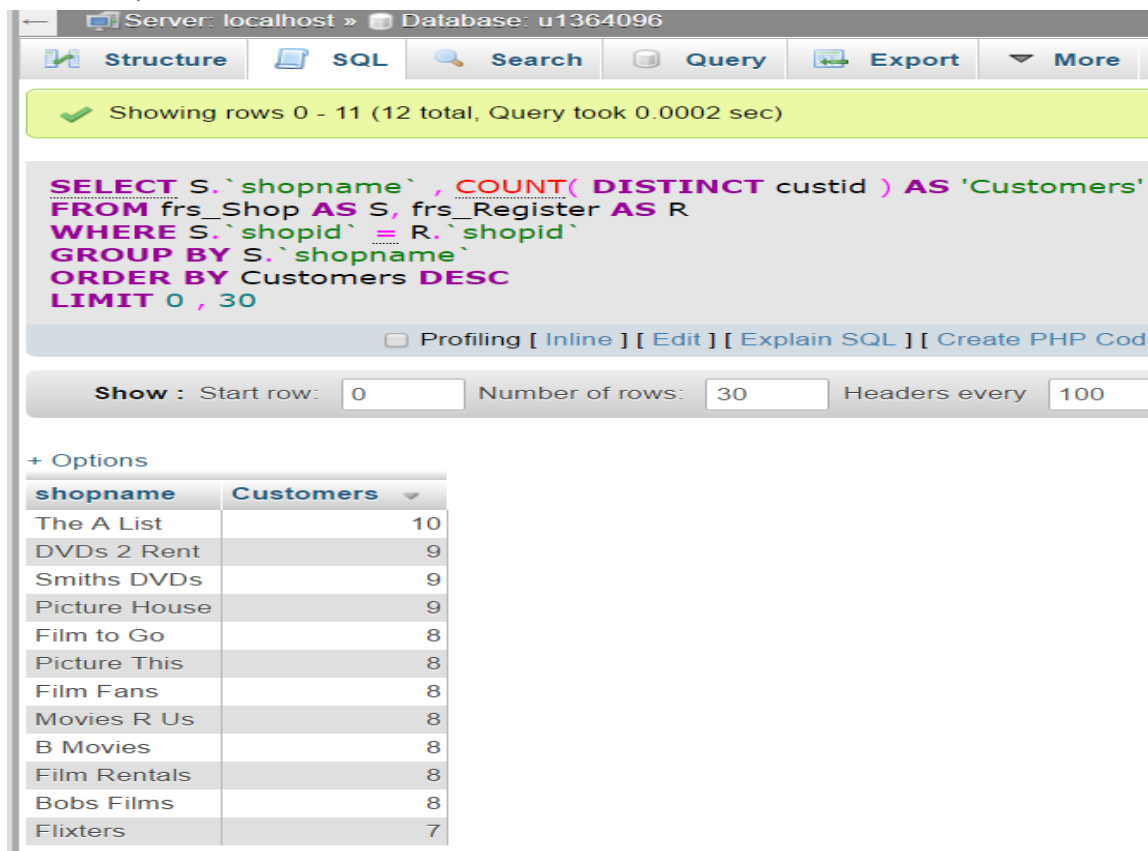


U1364096 1364096161648538

- 1) Display the name of each shop and the total number of customers per shop;  
order by customers from highest to lowest.

```
SELECT
    S.`shopname`,
    COUNT(DISTINCT custid) AS 'Customers'
FROM
    frs_Shop AS S,
    frs_Register AS R
WHERE
    S.`shopid` = R.`shopid`
GROUP BY
    S.`shopname`
ORDER BY
    Customers DESC;
```

#### Evidence Q1



Server: localhost » Database: u1364096

Structure SQL Search Query Export More

Showing rows 0 - 11 (12 total, Query took 0.0002 sec)

```
SELECT S.`shopname`, COUNT( DISTINCT custid ) AS 'Customers'
FROM frs_Shop AS S, frs_Register AS R
WHERE S.`shopid` = R.`shopid`
GROUP BY S.`shopname`
ORDER BY Customers DESC
LIMIT 0 , 30
```

☐ Profiling [ Inline ] [ Edit ] [ Explain SQL ] [ Create PHP Code ]

Show : Start row: 0 Number of rows: 30 Headers every 100

+ Options

| shopname      | Customers |
|---------------|-----------|
| The A List    | 10        |
| DVDs 2 Rent   | 9         |
| Smiths DVDs   | 9         |
| Picture House | 9         |
| Film to Go    | 8         |
| Picture This  | 8         |
| Film Fans     | 8         |
| Movies R Us   | 8         |
| B Movies      | 8         |
| Film Rentals  | 8         |
| Bobs Films    | 8         |
| Flixters      | 7         |

- 2) Display the name of each shop, the total money earned per shop (AS Takings) and the total number of films rented per shop (AS Transactions).

```
SELECT
    S.`shopname`,
    SUM(F.`rentalrate` + F.`overduecharge`) AS 'Takings',
    COUNT(F.`payid`) AS 'Transactions'
FROM
    frs_FilmRental AS F
INNER JOIN
    frs_Shop AS S ON S.`shopid` = F.`shopid`
GROUP BY
    S.`shopid`;
```

#### Evidence Q2

Server: localhost » Database: u1364096

Structure SQL Search Query Export More

Showing rows 0 - 11 (12 total, Query took 0.0001 sec)

```
SELECT S.`shopname`, SUM( F.`rentalrate` + F.`overduecharge` ) AS
'Takings', COUNT( F.`payid` ) AS 'Transactions'
FROM frs_FilmRental AS F
INNER JOIN frs_Shop AS S ON S.`shopid` = F.`shopid`
GROUP BY S.`shopid`
LIMIT 0 , 30
```

☐ Profiling [ Inline ] [ Edit ] [ Explain SQL ] [ Create PHP Code ] [ R

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

#### + Options

| shopname      | Takings | Transactions |
|---------------|---------|--------------|
| Smiths DVDs   | 95.76   | 24           |
| Bobs Films    | 38.91   | 9            |
| Film Fans     | 190.54  | 46           |
| Movies R Us   | 43.89   | 11           |
| DVDs 2 Rent   | 74.82   | 18           |
| Film Rentals  | 107.73  | 27           |
| Film to Go    | 90.78   | 22           |
| B Movies      | 215.46  | 54           |
| The A List    | 65.84   | 16           |
| Picture House | 211.47  | 53           |
| Picture This  | 51.87   | 13           |
| Flixters      | 88.79   | 21           |

3) *Display the total number of transactions attributed to all employees, giving employee number and employee name (this includes payments and returns).*

```
SELECT
    E.`empnin`,
    E.`empname`,
    (SELECT COUNT(P.`payid`)
     FROM frs_Payment AS P
     WHERE
         payG.`empnin` = P.`empnin`)
    + COUNT(payid) AS 'Total'
FROM
    (SELECT
        F.`empnin`,
        F.`payid`,
        F.`rstatusid`
        FROM frs_FilmRental AS F
        GROUP BY
            F.`payid`) AS payG
NATURAL JOIN
    frs_Employee AS E
WHERE
    rstatusid != 3
GROUP BY
    E.`empnin`
ORDER BY
    Total DESC;
```

## Evidence Q3

Server: localhost » Database: u1364096

Structure SQL Search

Showing rows 0 - 29 (31 total, Query took 0.0

```

SELECT E.`empnin` , E.`empname` , (
    SELECT COUNT( P.`payid` )
    FROM frs_Payment AS P
    WHERE payG.`empnin` = P.`empnin`
) + COUNT( payid ) AS 'Total'
FROM (

```

1 Show all > >> Show : Sta

Sort by key: None

+ Options

| empnin | empname        | Total |
|--------|----------------|-------|
| NIN003 | Emanuel FORT   | 13    |
| NIN001 | John RUSSELL   | 12    |
| NIN008 | John White     | 12    |
| NIN006 | Mikael LOHM    | 12    |
| NIN031 | George Brown   | 12    |
| NIN028 | David Antil    | 10    |
| NIN019 | Carol Farrel   | 9     |
| NIN025 | Alice Eve      | 8     |
| NIN020 | Emma MONTFORT  | 8     |
| NIN027 | Carl Smith     | 8     |
| NIN029 | Elsie Tanner   | 8     |
| NIN010 | Diamuid CUSAAK | 8     |
| NIN024 | Denis CHOW     | 7     |
| NIN023 | Eric THOMAS    | 6     |
| NIN009 | Anne BUCKNER   | 6     |

```

SELECT E.`empnin` , E.`empname` , (
    SELECT COUNT( P.`payid` )
    FROM frs_Payment AS P
    WHERE payG.`empnin` = P.`empnin`
) + COUNT( payid ) AS 'Total'
FROM (
    SELECT F.`empnin` , F.`payid` , F.`rstatusid`
    FROM frs_FilmRental AS F
    GROUP BY F.`payid`
) AS payG
NATURAL JOIN frs_Employee AS E
WHERE rstatusid !=3
GROUP BY E.`empnin`

ORDER BY Total DESC

```

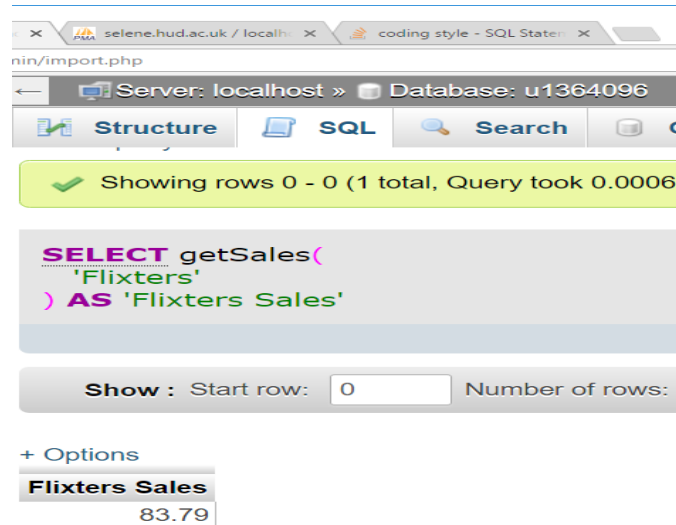
- 4) Write a function to get the payment sales figures from any given shop  
The shop should be searched for by name.

```
Delimiter //
```

```
CREATE FUNCTION getSales(shop TEXT)
  RETURNS DECIMAL(5,2)
  BEGIN
    DECLARE sF DECIMAL(5,2);
    SELECT
      SUM(F.`rentalrate`) INTO sF
    FROM
      frs_Shop AS S,
      frs_FilmRental AS F
    WHERE
      S.`shopid` = F.`shopid`
      AND S.`shopname` = shop;
    RETURN
      sF;
  END //
```

```
DELIMITER ;
```

#### Evidence Q4



Server: localhost » Database: u1364096

Structure SQL Search

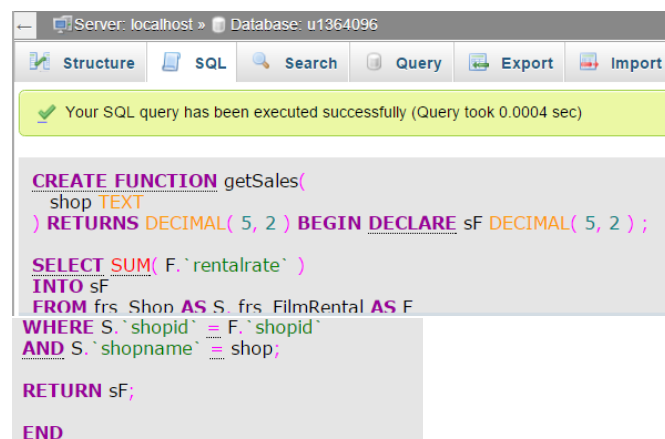
Showing rows 0 - 0 (1 total, Query took 0.0006)

```
SELECT getSales(
  'Flixters'
) AS 'Flixters Sales'
```

Show : Start row: 0 Number of rows:

+ Options

| Flixters Sales |
|----------------|
| 83.79          |



Server: localhost » Database: u1364096

Structure SQL Search Query Export Import

Your SQL query has been executed successfully (Query took 0.0004 sec)

```
CREATE FUNCTION getSales(
  shop TEXT
) RETURNS DECIMAL( 5, 2 ) BEGIN DECLARE sF DECIMAL( 5, 2 );
SELECT SUM( F.`rentalrate` )
INTO sF
FROM frs_Shop AS S, frs_FilmRental AS F
WHERE S.`shopid` = F.`shopid`
AND S.`shopname` = shop;
RETURN sF;
END
```

*5.Create a view table of sales figures for each individual shop  
(displaying the shop by name), the date the sales figures were  
created and the manager of the shop (displaying the shop by name).*

```
CREATE VIEW v AS
SELECT
    S.`shopname` ,
    E.`empname` AS 'Manager',
    SUM(F.`rentalrate` + F.`overduecharge`) AS 'Takings',
    CURDATE() date
FROM frs_FilmRental AS F
JOIN
    frs_Shop AS S
ON
    F.`shopid` = S.`shopid`
JOIN
    frs_Employee AS E
ON
    F.`empnin` = E.`empnin` AND E.`mgrnin` IS NOT NULL
GROUP BY
    F.`shopid`;
```

## Evidence Q5

phpMyAdmin

Server: localhost » Database: u1364096 » View: v

Showing rows 0 - ... (Query took 0.0023 sec)

```
SELECT *
FROM `v`
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30

+ Options

| shopname      | Manager        | Takings | date       |
|---------------|----------------|---------|------------|
| Smiths DVDs   | John RUSSELL   | 95.76   | 2016-12-02 |
| Bobs Films    | Carl BACHS     | 38.91   | 2016-12-02 |
| Film Fans     | Emanuel FORT   | 190.54  | 2016-12-02 |
| Movies R Us   | Ian HALL       | 43.89   | 2016-12-02 |
| DVDs 2 Rent   | Karen JUDA     | 74.82   | 2016-12-02 |
| Film Rentals  | Mikael LOHM    | 107.73  | 2016-12-02 |
| Film to Go    | Olive NEPAL    | 90.78   | 2016-12-02 |
| B Movies      | John White     | 215.46  | 2016-12-02 |
| The A List    | Anne BUCKNER   | 65.84   | 2016-12-02 |
| Picture House | Diamuid CUSAAK | 211.47  | 2016-12-02 |
| Picture This  | Emma DODD      | 51.87   | 2016-12-02 |
| Flixters      | Frances EARLY  | 88.79   | 2016-12-02 |

Server: localhost » Database: u1364096

Structure SQL Search Query Export Import Ope

Showing rows 0 - 11 (12 total, Query took 0.0012 sec)

```
SELECT S.`shopname`, E.`empname` AS 'Manager', SUM( F.`rentalrate` +
F.`overduecharge` ) AS 'Takings', CURDATE( ) DATE
FROM frs_FilmRental AS F
JOIN frs_Shop AS S ON F.`shopid` = S.`shopid`
JOIN frs_Employee AS E ON F.`empnin` = E.`empnin`
AND E.`mgrnin` IS NOT NULL
GROUP BY F.`shopid`
```

Profiling [ Inline ] [ Edit ] [ Explain SQL ] [ Create PH

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

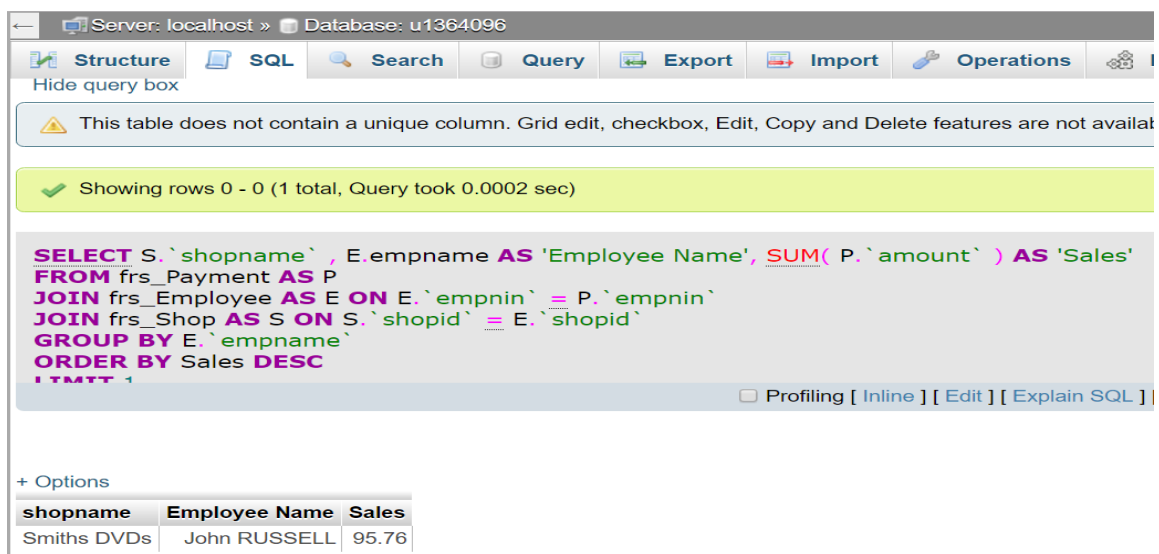
| shopname      | Manager        | Takings | date       |
|---------------|----------------|---------|------------|
| Smiths DVDs   | John RUSSELL   | 95.76   | 2016-12-02 |
| Bobs Films    | Carl BACHS     | 38.91   | 2016-12-02 |
| Film Fans     | Emanuel FORT   | 190.54  | 2016-12-02 |
| Movies R Us   | Ian HALL       | 43.89   | 2016-12-02 |
| DVDs 2 Rent   | Karen JUDA     | 74.82   | 2016-12-02 |
| Film Rentals  | Mikael LOHM    | 107.73  | 2016-12-02 |
| Film to Go    | Olive NEPAL    | 90.78   | 2016-12-02 |
| B Movies      | John White     | 215.46  | 2016-12-02 |
| The A List    | Anne BUCKNER   | 65.84   | 2016-12-02 |
| Picture House | Diamuid CUSAAK | 211.47  | 2016-12-02 |
| Picture This  | Emma DODD      | 51.87   | 2016-12-02 |
| Flixters      | Frances EARLY  | 88.79   | 2016-12-02 |



6) Write a query to find the top sales person in the company.  
Display the employee name, the shop where he/she is employed  
and the value of sales. Do not include overdue charges.

```
SELECT
    S.`shopname`,
    E.empname AS 'Employee Name',
    SUM(P.`amount`) AS 'Sales'
FROM
    frs_Payment AS P
JOIN
    frs_Employee AS E
    ON E.`empnin` = P.`empnin`
JOIN
    frs_Shop AS S
    ON S.`shopid` = E.`shopid`
GROUP BY
    E.`empname`
ORDER BY
    Sales DESC
LIMIT 1;
```

Evidence Q6



Server: localhost » Database: u1364096

Structure SQL Search Query Export Import Operations

Hide query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available

✓ Showing rows 0 - 0 (1 total, Query took 0.0002 sec)

```
SELECT S.`shopname`, E.empname AS 'Employee Name', SUM( P.`amount` ) AS 'Sales'
FROM frs_Payment AS P
JOIN frs_Employee AS E ON E.`empnin` = P.`empnin`
JOIN frs_Shop AS S ON S.`shopid` = E.`shopid`
GROUP BY E.`empname`
ORDER BY Sales DESC
LIMIT 1
```

Profiling [ Inline ] [ Edit ] [ Explain SQL ]

+ Options

| shopname    | Employee Name | Sales |
|-------------|---------------|-------|
| Smiths DVDs | John RUSSELL  | 95.76 |

7) Display the name of the top sales person within each shop.  
Display the employee name, the shop where he/she is employed and  
the value of sales for that person.

```
SELECT
    S.`shopname`,
    E.`empname`,
    SUM(P.`amount`) AS 'Sales'
FROM
    frs_Payment AS P
JOIN
    frs_Employee AS E
    ON E.`empnin` = P.`empnin`
JOIN
    frs_Shop AS S
    ON S.`shopid` = E.`shopid`
GROUP BY
    E.`empname`
ORDER BY
    Sales DESC;
```

[Evidence Q7](#)

Server: localhost » Database: u1364096

Structure SQL Search Query Export Import Operations

Showing rows 0 - 29 (30 total, Query took 0.0002 sec)

```
SELECT S.`shopname` , E.empname AS 'Employee Name', SUM( P.`amount` ) AS 'Sales'
FROM frs_Payment AS P
JOIN frs_Employee AS E ON E.`empnin` = P.`empnin`
JOIN frs_Shop AS S ON S.`shopid` = E.`shopid`
GROUP BY E.`empname`
ORDER BY Sales DESC
LIMIT 0 , 30
```

☐ Profiling [ [Inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP Code](#) ] [ [Re](#)

Show : Start row:  Number of rows:  Headers every  rows

+ Options

| shopname      | Employee Name  | Sales |
|---------------|----------------|-------|
| Smiths DVDs   | John RUSSELL   | 95.76 |
| Picture House | Diamuid CUSAAK | 83.79 |
| B Movies      | George Brown   | 83.79 |
| B Movies      | John White     | 75.81 |
| Film Fans     | Emma MONTFORT  | 71.82 |
| Film Rentals  | Mikael LOHM    | 63.84 |
| Film Fans     | Emanuel FORT   | 59.85 |
| Picture House | David Antil    | 59.85 |
| Film Fans     | Carol Farrel   | 55.86 |
| Picture House | Carl Smith     | 43.89 |
| Picture House | Elsie Tanner   | 43.89 |
| Film Rentals  | Alice Eve      | 43.89 |
| The A List    | Anne BUCKNER   | 39.90 |
| Flixters      | Frances EARLY  | 39.90 |
| Film to Go    | Olive NEPAL    | 35.91 |
| Picture This  | Denis CHOW     | 35.91 |
| Movies R Us   | Tony Shaw      | 31.92 |