

## DBS311 Assignment#2

### GROUP MEMBERS:

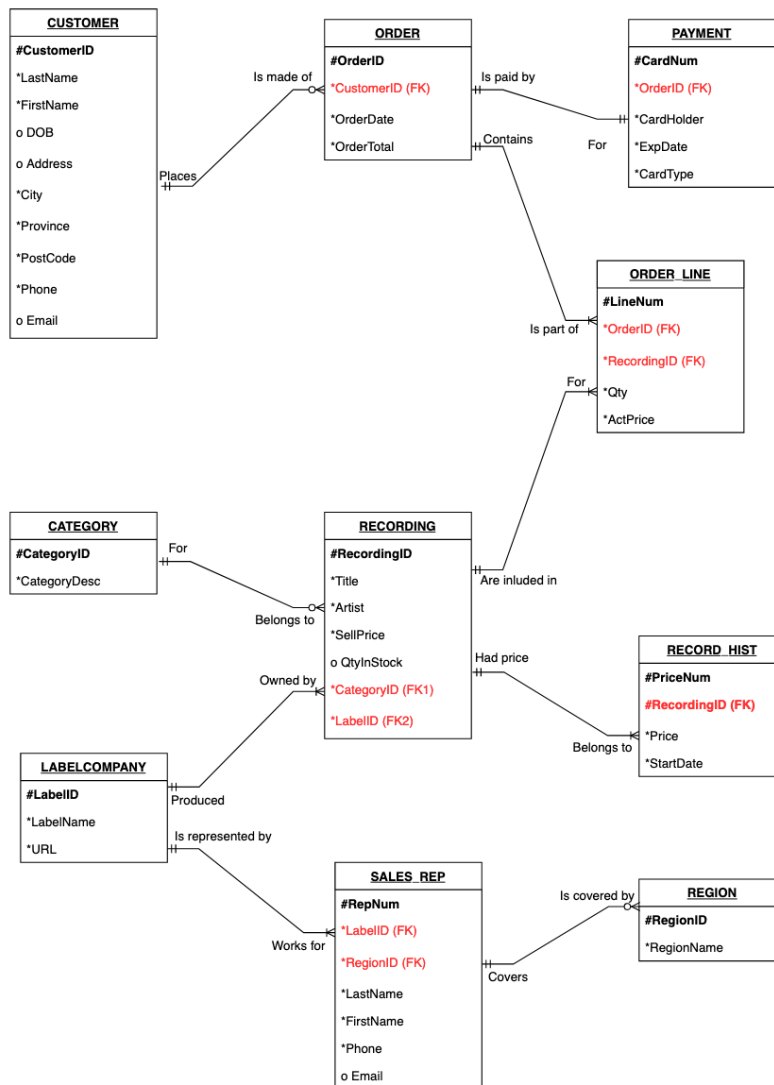
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Section: NJJ

### PART 1: ERD



Assignment 2

Tables (Filtered)

CATEGORIES

CUSTOMERS

LABEL\_COMPANY

ORDER\_LINE

ORDERS

PAYMENT

RECORD\_HIST

RECORDING

REGION

SALES\_REP

Views

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Worksheet

Query Builder

1

SELECT \* from sales\_rep

Script Output

Query Result

SQL

All Rows Fetched: 6 in 0.036 seconds

	REP_ID	LABEL_ID	REGION_ID	FIRST_NAME	LAST_NAME	PHONE_NUM	EMAIL
1	10	100	1	Harry	Styles	(416)321-4567	hstyles@smoothrecords.com
2	20	200	2	Joseph	Smith	(416)454-2556	jsmith23@rockinrecords.com
3	30	100	1	Jen	Holmes	(647)884-9100	jholmes12@smoothrecords.com
4	40	200	2	Amanda	Jones	(416)444-6523	ajones10@rockinrecords.com
5	50	100	1	Barb	Lawrence	(647)222-6565	blawrence@smoothrecords.com
6	60	200	2	Richard	Wessel	(416)434-1212	rwessel@rockinrecords.com

Worksheet

Query Builder

1

SELECT \* from region

Script Output

Query Result

SQL

All Rows Fetched: 2 in 0.037 seconds

	REGION_ID	REGION_NAME
1	1	Americas
2	2	Europe

Worksheet

Query Builder

1

SELECT \* from recording

Script Output

Query Result

SQL

All Rows Fetched: 7 in 0.031 seconds

	RECORDING_ID	TITLE	ARTIST	SELL_PRICE	QTY_STOCK	CATEGORY_ID	LABEL_ID
1	10	Whats Going On	Marvin Gaye	15.25	34	1	200
2	20	Kind of Blue	Miles Davis	19.99	22	2	200
3	30	Ride the Lightning	Metallica	9.99	12	3	100
4	40	Nevermind	Nirvana	9.99	12	4	100
5	50	Rhums	Fleetwood Mac	17.99	18	5	100
6	60	Dark Side of the Moon	Pink Floyd	25.98	2	6	100
7	70	Ready to Die	The Notorius BIG	25.98	35	7	200

Worksheet

Query Builder

1

SELECT \* from record\_hist

Script Output

Query Result

SQL

All Rows Fetched: 5 in 0.037 seconds

	PRICE_NUM	RECORDING_ID	PRICE	ST_DATE
1	1	10	15.25	20-01-01
2	2	20	19.99	20-01-01
3	3	30	9.99	20-01-01
4	4	40	17.99	20-01-01
5	5	50	25.98	20-01-01

- Assignment 2
- Tables (Filtered)
- CATEGORIES
  - CUSTOMERS
  - LABEL\_COMPANY
  - ORDER\_LINE
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  - PAYMENT
  - RECORD\_HIST
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  - CUSTOMERS
  - LABEL\_COMPANY
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- Oracle Connections
- Assignment 2
- Tables (Filtered)
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  - CUSTOMERS
  - LABEL\_COMPANY
  - ORDER\_LINE
  - ORDERS
  - PAYMENT
  - RECORD\_HIST
  - RECORDING
  - REGION
  - SALES\_REP
- Views
- Indexes
- Packages
- Procedures
- Functions
- Operators
- Queues
- Queues Tables

Worksheet Query Builder

1 `SELECT * from payment`

Script Output x Query Result x

SQL | All Rows Fetched: 5 in 0.036 seconds

	CARD_NUMBER	ORDER_ID	CARD_HOLDER	EXP_DATE	CARD_TYPE
1	4520432156788765	1	James Giroux	02/26	VISA
2	4520474592348723	2	Robert Smith	08/25	VISA
3	4520659123877634	3	Mike Rand	04/24	VISA
4	4520675488912546	4	Donald Dolphin	09/25	VISA
5	4520657299237610	5	Carl Schafer	06/23	VISA

Worksheet Query Builder

1 `SELECT * from orders`

Script Output x Query Result x

SQL | All Rows Fetched: 5 in 0.04 seconds

	ORDER_ID	CUSTOMER_ID	ORDER_DATE	ORDER_TOTAL
1	1	1	21-11-12	34.56
2	2	2	122-10-11	99.95
3	3	3	4 22-01-28	9.99
4	4	4	8 21-08-08	359.8
5	5	5	6 22-11-25	155.88

Worksheet Query Builder

1 `SELECT * from order_line`

Script Output x Query Result x

SQL | All Rows Fetched: 5 in 0.037 seconds

	LINE_NUM	ORDER_ID	RECORDING_ID	QTY	ACT_PRICE
1	1	1	10	2	15.25
2	2	2	20	5	19.99
3	3	3	30	1	9.99
4	4	4	40	20	17.99
5	5	5	50	6	25.98

0.243 seconds

Worksheet Query Builder

1 `SELECT * from categories`

Script Output x

Task completed in 0.243 seconds

CATEGORY_ID	CAT_DESC
1	RANDB
2	Jazz
3	Metal Rock
4	Alt Rock
5	Easy Rock
6	Classic Rock
7	Hip-Hop

7 rows selected.

The top screenshot shows a database interface with a table list on the left and a query window. The query is `SELECT * from label_company`. The results show two rows:

LABEL_ID	LABEL_NAME	WEBSITE
1	100 Smooth Records	www.smoothrecords.com
2	200 Rockin Records	www.rockinrecords.com

The bottom screenshot shows a similar interface with a query `SELECT * from customers`. The results show 10 rows of customer data:

CUSTOMER_ID	FIRST_NAME	LAST_NAME	EMAIL	DOB	STREET	CITY	PROVINCE	POSTAL_CODE	PHONE_NUM
1	James	Giroux	jgiroux1@myseneca.ca	79-10-02 25	Smith pkwy	Toronto	ON	M2M1X6	(647)-924-5369
2	Robert	Smith	rsmith2@myseneca.ca	99-01-20 12	Fuzzy Ln.	Toronto	ON	M4J1L8	(647)-435-1342
3	Mike	Rand	mrands23@myseneca.ca	01-08-15 2342	Baview Ave	North York	ON	M6J1S4	(416)-723-1755
4	Tiffany	LeMieu	tlemieu@myseneca.ca	85-07-06 108	Broadview Ave.	Toronto	ON	M1E6F2	(416)-547-1298
5	Jennifer	Laurence	jlaurence@myseneca.ca	89-12-26 5	Young St.	Toronto	ON	M1R2D4	(647)-519-5656
6	Donald	Dolphin	ddolphin@myseneca.ca	81-02-12 35	Wooten Way	Markham	ON	L3R4J5	(905)-672-1783
7	Mike	Tonelli	mttonelli@myseneca.ca	87-03-14 562	Steeles Ave E	Thornhill	ON	L8Z1H5	(905)-719-6429
8	Carl	Schafer	cshafer@myseneca.ca	67-09-06 1234	Keele St.	Etobicoke	ON	M7G3D8	(647)-846-5369
9	Aida	Mulder	amulder@myseneca.ca	60-07-22 123	Moore Park Ave.	North York	ON	M2M2R4	(416)-656-6656
10	Amanda	Strathdee	astrathdee2@myseneca.ca	79-10-02 54	Hounsflow Ave.	North York	ON	M5Z1X	(647)-882-8282

### PART 3: STORED PROCEDURE – Screenshot

==>

create or replace PROCEDURE Recording\_Selling\_Price\_Report AS

avgprice NUMBER;

countLOW NUMBER;

countHIGH NUMBER;

sp NUMBER;

CURSOR sp\_cursor IS

SELECT sell\_price

FROM recording;

BEGIN

countLOW :=0;

countHIGH :=0;

SELECT AVG(sell\_price) INTO avgprice

FROM recording;

OPEN sp\_cursor;

LOOP

FETCH sp\_cursor INTO sp;

EXIT WHEN sp\_cursor%NOTFOUND;

IF (sp < avgprice) THEN

countLOW := (countLOW +1);

ELSE countHIGH := (countHIGH +1);

END IF;

```

END LOOP;
DBMS_OUTPUT.PUT_LINE ('Category LOW has '|| countLOW||' recordings');
DBMS_OUTPUT.PUT_LINE ('Category HIGH has '|| countHIGH||'
recordings');
IF sp_cursor%ISOPEN THEN
    CLOSE sp_cursor;
END IF;
END;

```

```

SET SERVEROUTPUT ON;
EXECUTE RECORDING_SELLING_PRICE_REPORT;

```

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows the 'DBS311' connection. The 'Tables (Filtered)' list includes CATEGORIES, COUNTRIES, CUSTOMERS, DEPARTMENTS, EMPLOYEES, JOB\_GRADES, JOB\_HISTORY, JOBS, LABEL\_COMPANY, LOCATIONS, ORDER\_LINE, ORDERS, PAYMENT, PRODUCT\_CATEGORIES, PRODUCTS, RECORD\_HIST, RECORDING, REGION, SALES\_REP, and WAREHOUSES. The 'Procedures' list includes CALCULATE\_SALARY, EVEN\_ODD, FIND\_EMPLOYEE, FIND\_PROD\_PRICE, GET\_FACT, PRODUCT\_PRICE\_REPORT, RECORDING\_SELLING\_PRICE\_RE, UPDATE\_PRICE\_BY\_CAT, UPDATE\_PRICE\_UNDER\_AVG, and WAREHOUSES\_REPORT. The main editor window shows the code for the 'RECORDING\_SELLING\_PRICE\_REPORT' procedure, which is a PL/SQL block that calculates the average selling price and counts records below and above this average.

```

1  create or replace PROCEDURE Recording_Selling_Price_Report AS
2      avgprice NUMBER;
3      countLOW NUMBER;
4      countHIGH NUMBER;
5      sp NUMBER;
6      CURSOR sp_cursor IS
7          SELECT sell_price
8              FROM recording;
9
10 BEGIN
11     countLOW :=0;
12     countHIGH :=0;
13     SELECT AVG(sell_price) INTO avgprice
14         FROM recording;
15
16     OPEN sp_cursor;
17     LOOP
18         FETCH sp_cursor INTO sp;
19         EXIT WHEN sp_cursor%NOTFOUND;
20
21         IF (sp < avgprice) THEN
22             countLOW := (countLOW +1);
23         ELSE countHIGH := (countHIGH +1);
24         END IF;
25     END LOOP;
26
27     DBMS_OUTPUT.PUT_LINE ('Category LOW has '|| countLOW||' recordings');
28     DBMS_OUTPUT.PUT_LINE ('Category HIGH has '|| countHIGH||' recordings');
29
30     IF sp_cursor%ISOPEN THEN
31         CLOSE sp_cursor;
32     END IF;
33
34 END;

```

```
1 SET SERVEROUTPUT ON;
2 EXECUTE RECORDING_SELLING_PRICE_REPORT;
```

Script Output x

Task completed in 25.404 seconds

Category LOW has 3 recordings  
Category HIGH has 4 recordings

PL/SQL procedure successfully completed.

#### PART 4: No-SQL Design

```
db.customers.insert([
{"customer_id" : "1", "first_name" : "James", "last_name" : "Giroux", "email" :
"jgiroux1@myseneca.ca",
"dob" : "02-OCT-1979", "street" : "25 Smith pkwy", "city" : "Toronto",
"province" : "ON", "postal_code" : "M2M1X6", "phone_num" : "(647)-924-
5369"},
{"customer_id" : "2", "first_name" : "Robert", "last_name" : "Smith", "email" :
"rsmith2@myseneca.ca",
"dob" : "20-JAN-1999", "street" : "12 Fuzzy Ln.", "city" : "Toronto", "province" :
"ON", "postal_code" : "M4J1L8", "phone_num" : "(647)-435-1342"},
{"customer_id" : "3", "first_name" : "Mike", "last_name" : "Rand", "email" :
"mrاند23@myseneca.ca",
"dob" : "15-AUG-2001", "street" : "2342 Baview Ave", "city" : "North York",
"province" : "ON", "postal_code" : "M6J1S4", "phone_num" : "(416)-723-1755"},
{"customer_id" : "4", "first_name" : "Tiffany", "last_name" : "LeMieu", "email" :
"tlemieu@myseneca.ca",
"dob" : "06-JUL-1985", "street" : "108 Broadview Ave.", "city" : "Toronto",
"province" : "ON", "postal_code" : "M1E6F2", "phone_num" : "(416)-547-1298"},
{"customer_id" : "5", "first_name" : "Jennifer", "last_name" : "Laurence", "email" :
"jlaurence@myseneca.ca",
"dob" : "26-Dec-1989", "street" : "5 Young St.", "city" : "Toronto", "province" :
"ON", "postal_code" : "M1R2D4", "phone_num" : "(647)-519-5656"},
{"customer_id" : "6", "first_name" : "Donald", "last_name" : "Dolphin", "email" :
"ddolphin@myseneca.ca",
```

```

    "dob" : "12-FEB-1981", "street" : "35 Wooten Way", "city" : "Markham",
    "province" : "ON", "postal_code" : "L3R4J5", "phone_num" : "(905)-672-1783"},
    {"customer_id" : "7", "first_name" : "Mike", "last_name" : "Tonelli", "email" :
    "mtonelli@myseneca.ca",
    "dob" : "14-MAR-1987", "street" : "562 Steeles Ave E", "city" : "Thornhill",
    "province" : "ON", "postal_code" : "L8Z1H5", "phone_num" : "(905)-719-6429"},
    {"customer_id" : "8", "first_name" : "Carl", "last_name" : "Schafer", "email" :
    "cschafer@myseneca.ca",
    "dob" : "06-SEP-1967", "street" : "1234 Keele St.", "city" : "Etobicoke",
    "province" : "ON", "postal_code" : "M7G3D8", "phone_num" : "(647)-846-
    5369"},
    {"customer_id" : "9", "first_name" : "Aida", "last_name" : "Muldar", "email" :
    "amulder@myseneca.ca",
    "dob" : "22-JUL-1960", "street" : "123 Moore Park Ave.", "city" : "North York",
    "province" : "ON", "postal_code" : "M2M2R4", "phone_num" : "(416)-656-
    6656"},
    {"customer_id" : "10", "first_name" : "Amanda", "last_name" : "Strathdee",
    "email" : "astrathdee2@myseneca.ca",
    "dob" : "02-OCT-1979", "street" : "54 Hounslow Ave.", "city" : "North York",
    "province" : "ON", "postal_code" : "M52J1X", "phone_num" : "(647)-882-8282"}
]

```

```

db.orders.insert([
    {"order_id" : "1", "customer_id" : "3", "order_date" : "12-NOV-2021",
    "order_total" : "34.56"
    },
    {"order_id" : "2", "customer_id" : "1", "order_date" : "11-OCT-2022",
    "order_total" : "99.95"
    },
    {"order_id" : "3", "customer_id" : "4", "order_date" : "28-JAN-2022",
    "order_total" : "9.99"
    },
    {"order_id" : "4", "customer_id" : "8", "order_date" : "08-AUG-2021",
    "order_total" : "359.8"
    },
    {"order_id" : "5", "customer_id" : "6", "order_date" : "25-NOV-2022",
    "order_total" : "155.88"
    }
])

```

```
db.payment.insert([
  {"card_number" : "4520432156788765", "order_id" : "1", "card_holder" :
"James Giroux", "exp_date" : "02/26", "card_type" : "VISA"
},
  {"card_number" : "4520474592348723", "order_id" : "2", "card_holder" :
"Robert Smith", "exp_date" : "08/25", "card_type" : "VISA"
},
  {"card_number" : "4520659123877634", "order_id" : "3", "card_holder" : "Mike
Rand", "exp_date" : "04/24", "card_type" : "VISA"
},
  {"card_number" : "4520675488912546", "order_id" : "4", "card_holder" :
"Donald Dolphin", "exp_date" : "09/25", "card_type" : "VISA"
},
  {"card_number" : "4520657299237610", "order_id" : "5", "card_holder" : "Carl
Schafer", "exp_date" : "06/23", "card_type" : "VISA"
}
])
```

```
db.categories.insert([
  {"category_id" : "1", "cat_desc" : "RANDB"},
  {"category_id" : "2", "cat_desc" : "Jazz"},
  {"category_id" : "3", "cat_desc" : "Metal Rock"},
  {"category_id" : "4", "cat_desc" : "Alt Rock"},
  {"category_id" : "5", "cat_desc" : "Easy Rock"},
  {"category_id" : "6", "cat_desc" : "Classic Rock"},
  {"category_id" : "7", "cat_desc" : "Hip-Hop"}
])
```

```
db.label_company.insert([
  {"label_id" : "100", "label_name" : "Smooth Records", "website" :
"www.smoothrecords.com"},
  {"label_id" : "200", "label_name" : "Rockin Records", "website" :
"www.rockinrecords.com"}
])
```

```
db.region.insert([
  {"region_id" : "1", "region_name" : "Americas"},
  {"region_id" : "2", "region_name" : "Europe"}
])
```



```

db.sales_rep.insert([
    {"rep_id": "10", "label_id": "100", "region_id": "1", "first_name": "Harry",
    "last_name": "Styles", "phone_num": "(416)321-4567", "email":
    "hstyles@smoothrecords.com"},
    {"rep_id": "20", "label_id": "200", "region_id": "2", "first_name": "Joseph",
    "last_name": "Smith", "phone_num": "(416)454-2556", "email":
    "jsmith23@rockinrecords.com"},
    {"rep_id": "30", "label_id": "100", "region_id": "1", "first_name": "Jen",
    "last_name": "Holmes", "phone_num": "(647)884-9100", "email":
    "jholmes12@smoothrecords.com"},
    {"rep_id": "40", "label_id": "200", "region_id": "2", "first_name": "Amanda",
    "last_name": "Jones", "phone_num": "(416)444-6523", "email":
    "ajones10@rockinrecords.com"},
    {"rep_id": "50", "label_id": "100", "region_id": "1", "first_name": "Barb",
    "last_name": "Lawrence", "phone_num": "(647)222-6565", "email":
    "blaurence@smoothrecords.com"},
    {"rep_id": "60", "label_id": "200", "region_id": "2", "first_name": "Richard",
    "last_name": "Wessel", "phone_num": "(416)434-1212", "email":
    "rwessel@rockinrecords.com"}
])

```

```

db.recording.insert([
    {"recording_id": "10", "title": "Whats Going On", "artist": "Marvin Gaye",
    "sell_price": "15.25", "qty_stock": "34", "category_id": "1", "label_id": "200"},
    {"recording_id": "20", "title": "Kind of Blue", "artist": "Miles Davis",
    "sell_price": "19.99", "qty_stock": "22", "category_id": "2", "label_id": "200"},
    {"recording_id": "30", "title": "Ride the Lightning", "artist": "Metalica",
    "sell_price": "9.99", "qty_stock": "12", "category_id": "3", "label_id": "100"},
    {"recording_id": "40", "title": "Nevermind", "artist": "Nirvana", "sell_price":
    "9.99", "qty_stock": "12", "category_id": "4", "label_id": "100"},
    {"recording_id": "50", "title": "Rhumers", "artist": "Fleetwood Mac",
    "sell_price": "17.99", "qty_stock": "18", "category_id": "5", "label_id": "100"},
    {"recording_id": "60", "title": "Dark Side of the Moon", "artist": "Pink Floyd",
    "sell_price": "25.98", "qty_stock": "2", "category_id": "6", "label_id": "100"},
    {"recording_id": "70", "title": "Ready to Die", "artist": "The Notorius BIG",
    "sell_price": "25.98", "qty_stock": "35", "category_id": "7", "label_id": "200"}
])

```

```

db.order_line.insert([

```

```
    {"line_num" : "1", "order_id" : "1", "recording_id" : "10", "qty" : "2",  
    "act_price" : "15.25"},  
    {"line_num" : "2", "order_id" : "2", "recording_id" : "20", "qty" : "5",  
    "act_price" : "19.99"},  
    {"line_num" : "3", "order_id" : "3", "recording_id" : "30", "qty" : "1",  
    "act_price" : "9.99"},  
    {"line_num" : "4", "order_id" : "4", "recording_id" : "40", "qty" : "20",  
    "act_price" : "17.99"},  
    {"line_num" : "5", "order_id" : "5", "recording_id" : "50", "qty" : "6",  
    "act_price" : "25.98"}  
    ])
```

```
db.record_hist.insert([  
    {"price_num" : "1", "recording_id" : "10", "price" : "15.25", "st_date" : "01-  
JAN-2020"},  
    {"price_num" : "2", "recording_id" : "20", "price" : "19.99", "st_date" : "01-  
JAN-2020"},  
    {"price_num" : "3", "recording_id" : "30", "price" : "9.99", "st_date" : "01-JAN-  
2020"},  
    {"price_num" : "4", "recording_id" : "40", "price" : "17.99", "st_date" : "01-  
JAN-2020"},  
    {"price_num" : "5", "recording_id" : "50", "price" : "25.98", "st_date" : "01-  
JAN-2020"}  
    ])
```