

Group 2 Final Project Submission

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Project CARS4ALL

Abstract:

Canary Auto Parts is a premier new database service for several small auto repair shops and vendors in United States. CanaryAuto database is a subscription-based platform that generates revenue by connecting Customers and Vendors seamlessly. CanaryAuto will provide a platform where, customers will be able to purchase specific parts for specific brand and car (make/model) from multiple vendors, Vendors will be able to post all their stock, customers will be able to check the availability, customers will be able to add products from multiple vendors that they wish to purchase and more.

Several business problems have recently developed within the company's value chain (e.g., customer service, marketing, quality, sales, strategy, and supply chain) due to their inability to analyze and manage their capital resources effectively. Currently, they do not have any online transaction processing (OLTP) system. Management is proposing a new project (CARS4ALL) to implement an OLTP system across all functional departments of the organization.

The major features of Project CARS4ALL is to improve quality management, reduce resources required for sales, and increase the analytical and forecasting ability within the organization. First, OLTP system will improve quality management by creating a thorough record of customer feedback data for every auto part ordered from our vendors. This empowers the organization to transform customer feedback data to support decision making and provide business insights in quality management. Second, it will reduce expenses and resources required for all sales by improving the procurement process from vendors. The OLTP system will enhance the ability to track all auto parts available from all vendors. Thus, improving the organization's buying power and inventory management. Finally, organizational data from this OLTP system can be transformed into an online analytical processing (OLAP) through an ETL process to optimize support decision making and provide business insights through analysis and forecasting ability.

Project Title – CARS4ALL

Name – Canary Auto Parts

Roles –

1. **Team Lead** – Frantz-Michel Bataille
2. **Design Leads** – Paul Tamayo, Corey Slayton
3. **SQL Gurus** – Srivardhan Ranga and Joseph Camacho
4. **Testers** – Kinnari Janakbhai Patel and Corey Slayton
5. **Application Design Leads** - Srivardhan Ranga, Kinnari Janakbhai Patel & Corey Slayton

Business Rules:

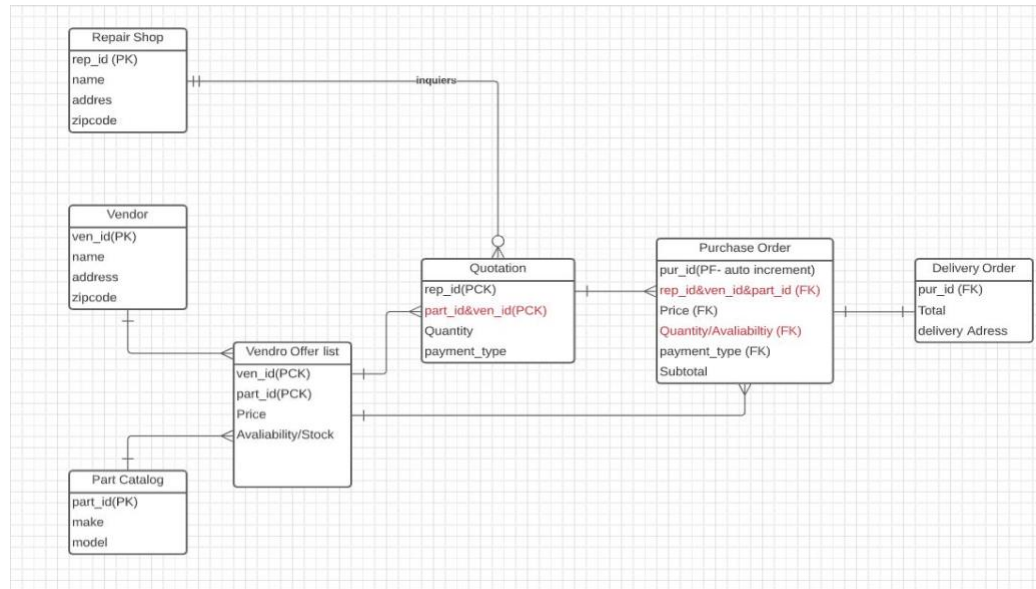
- A cart can contain one or more different cart items, while each cart item can be offered from a different vendor
- Vendors can have many different auto part listings
- Vendors can post what parts they have available and the quantity
- Once all items are selected, repair shops can place an order for the auto parts in the cart
- Repair shops will have the option to make payments with a credit card on file
- One or multiple payments can be made for an order (order contains different order items)
- Shipment Provider can make zero or many shipments for the order item
- Repair Shops and Vendors are constrained to the United States only.
- Repair Shops and Vendors require a business license to subscribe
- Repair Shops and Vendors are required to be located in the United States to subscribe
- Repair Shops select items to purchase from Vendor through use of cart
- Cart may contain zero or many Cart Items
- Cart Items are restricted to Parts
- Vendor must have Cart Items “In-Stock” to place in cart
- Purchased Carts become Orders that are fulfilled by Vendors
- Vendors use Shipping Providers to deliver Orders
- For security purposes, when the repair shop is deleted, all their saved credit card information should also be deleted.
- If a cart is deleted all the items associated with that cart should also be deleted.
- When a vendor is deleted from the system, all the stock listed by that vendor should also be deleted.
- If a part is in stock, it cannot be deleted from the parts catalog.

Business Features:

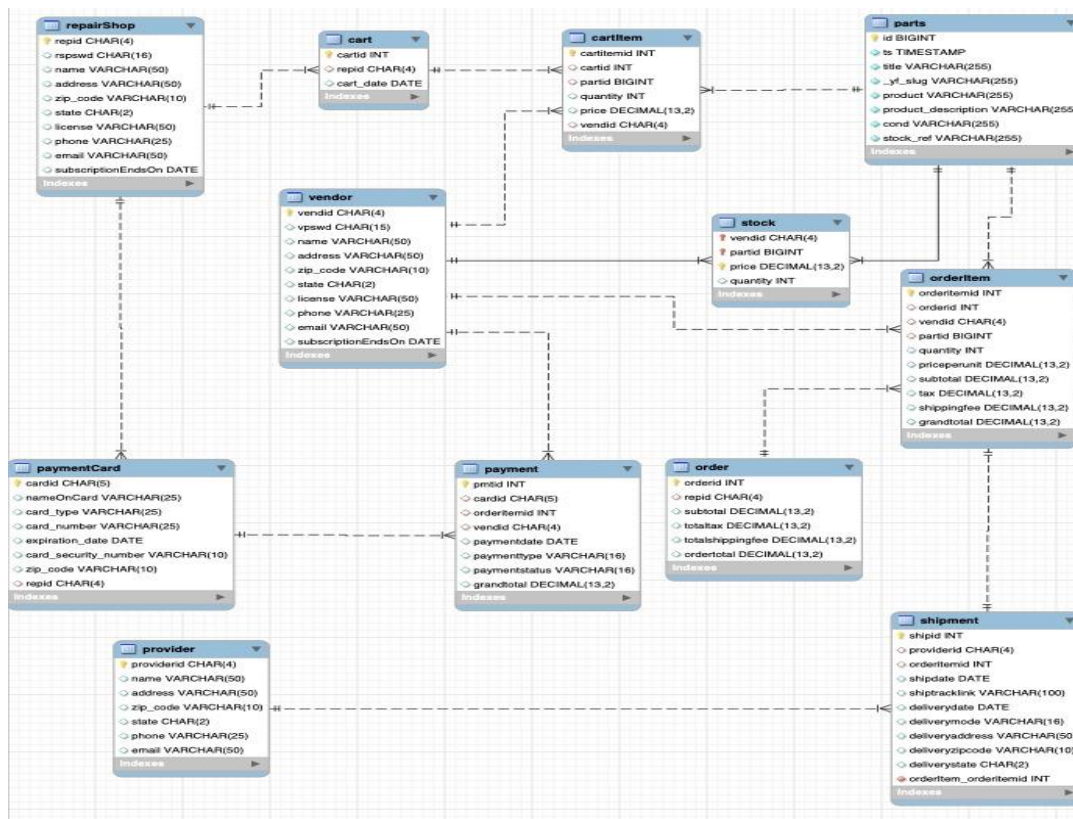
- Repair Shops will be able to purchase specific parts for specific brand and car (make/model) from multiple vendors
- Vendors will be able to post all their stock that's available for repairs shops to be able to select from
- Repair Shops will be able to check the availability of the part they are looking for before placing the order.
- Repair shops will be able to add products from multiple vendors that they wish to purchase in a cart (via website) to get more control over the total amount and shipment before placing the order.
- Repair Shops will have access to CC information to purchase for the parts needed for the clients (if they choose to pay via credit card). Repair Shops can save the card on file for future purchases.
- Repair Shops will have access to preset queries to provide statistical information on sales orders on their client's favorite car brands and more
- With the use of SubscriptionEndDate: Repair Shops and Vendors can be notified before their subscription for the service is going to expire.
- With the use of lastUpdatedDate: Our Service can notify Vendors to update their stock after one month of lastUpdatedDate.
- With the use of Vendor and Repair Shop License: the chances of repair Shops being scammed by fake vendors can be minimized
- CanaryAuto database moving into the Oracle cloud will increase its performance and enable more Repair Shops and Vendors to connect easily through an APEX application
- Application usage data can be captured and analyzed to provide insight on Repair Shops and Vendors
- Data captured can be transformed into business intelligence
- Business intelligence enables managers to make data driven decisions increasing operational efficiency
- Data driven organizational cultures are more agile and resilient to external market adversity

ER Diagram:

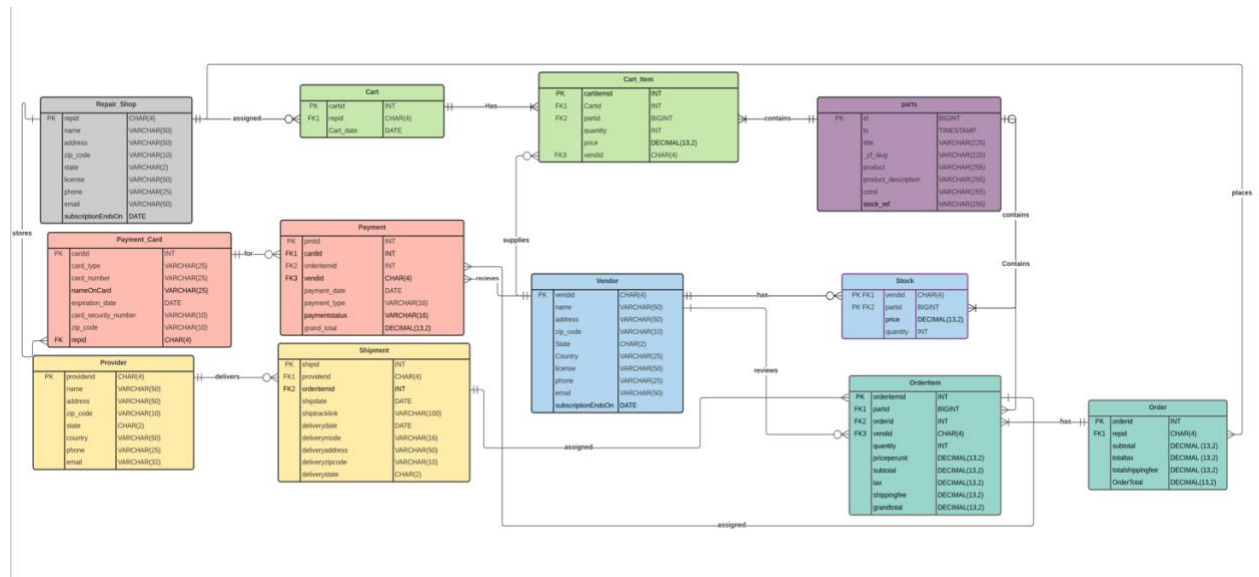
○ Base Design



○ ER Model SQL



Final ER Model: Canary Auto Parts



Cases:

1. A new repair shop (RepID: A USP, Name: AutoSpector, Address: 3310 SW Miami FL, 33173, License: 1K2S3C4P5F6, Email: autospec@gmail.com, Phone: 9736661230) subscribed for 1 year plan on October 5, 2021.
2. Repair shop: AutoSpector added 7 units of Mazda 3 BL 15x60 inch alloy wheel to the cart.
3. A vendor Jason Supply added 5 units of FORD RANGER PK LEFT REAR WHEEL ARCH FLARE (Part ID: 239) to stock.
4. Vendor INIF updated the price of Part ID:19 from \$4765 to \$3900
5. The service wants to get a list of repair shops whose subscription will expire on October 20, 2021 (Done using **Indexing**)
6. Repair shop ZASY updated the shop address to: 1234 SE Davie FL 33122.

Cases Implementation (SQL)

-- 1. A new repair shop (RepID: AUSEP, Name: AutoSpector, Address: 3310 SW Miami FL, 33173, License: 1K2S3C4P5F6, Email: autospec@gmail.com, Phone: 9736661230) subscribed for 1 year plan on October 5, 2021.

```
INSERT INTO repairShop VALUES
    ('AUSEP','AutoSpector','3310 SW
MIAMI',33173,'FL','1K2S3C4P5F6',9736661230,'autospec@gmail.com','2022-10-05
00:00:00');
```

-- 2. Repair shop: ZASY added 15 units of FORD TRANSIT MANUAL VEHICLE WRECK PART 2008 to the cart.

```
INSERT INTO cart VALUES
    ('300001','ZASY','2021-10-06');

INSERT INTO cartItem VALUES
    (400001,300001,13,15,2021,'UUPG');
```

-- 3. Vendor ANDN added 5 units of Part ID: 4 to stock.

```
UPDATE stock
SET
    quantity = 5 + quantity
WHERE
    (vendid,partid)=('ANDN',4);

select vendid AS 'VendorID',
    partid,
    price,
    quantity AS 'updated quantity'
from stock
where (vendid,partid)=('ANDN',4);
```

-- 4. Vendor INIF updated the price of Part ID:19 from \$4765 to \$3900

```
UPDATE stock
SET
    price = 3900
WHERE (vendid,partid)=('INIF',19);

SELECT *
FROM stock
WHERE (vendid,partid)=('INIF',19);
```

-- 5. The service wants to get a list of repair shops whose subscription will expire on October 20, 2022 (Indexing)

```
CREATE INDEX vendsubdate
ON vendor (subscriptionEndsOn);
```

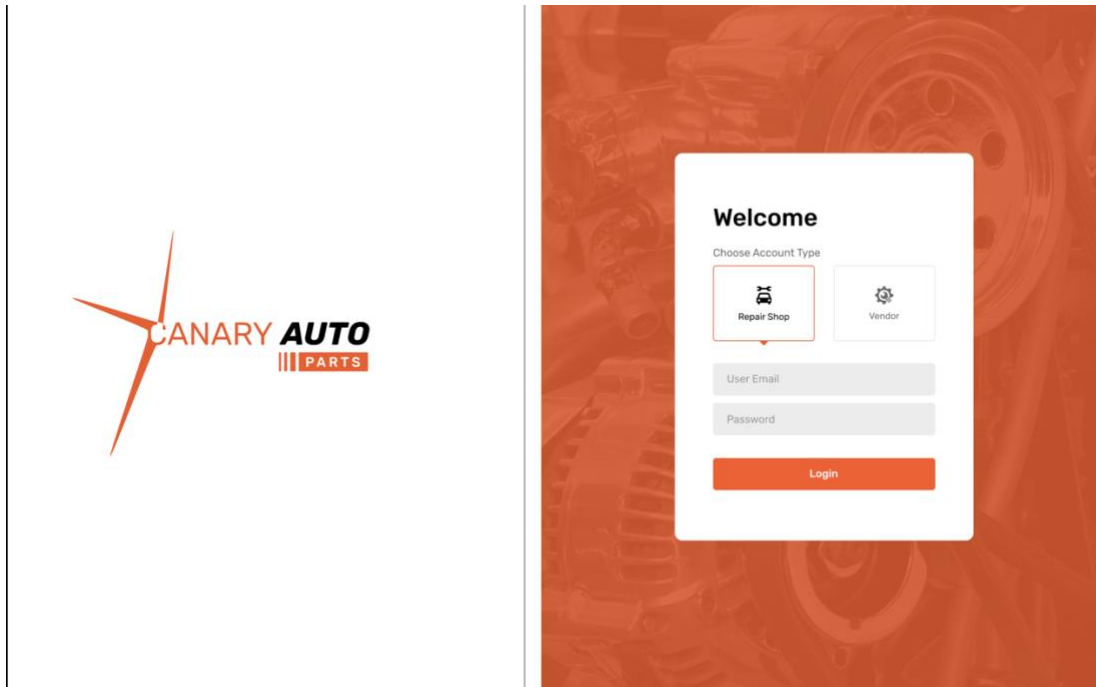
```
SELECT v.vendid AS 'Vendor ID',  
       v.subscriptionEndsOn AS 'Subscription Expires In(Days)'  
FROM vendor v  
WHERE  CAST(v.subscriptionEndsOn AS DATE)<2022-20-10  
  
ORDER BY `Subscription Expires In(Days)`;
```

**-- 6. Repair shop ZASY updated the shop address to: 1234 SE Davie FL
33122.**

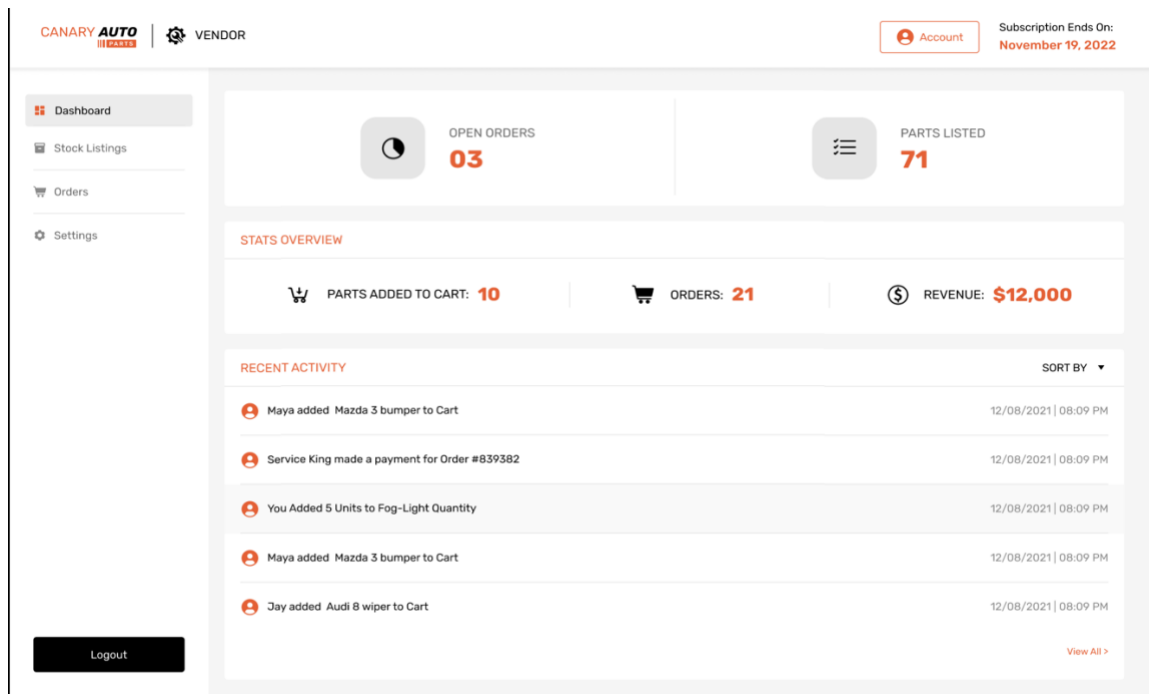
```
UPDATE repairShop  
SET  
    Address='1234 SE Davie'  
    Zip_code=33122  
    State='FL'  
WHERE repid='ZASY';
```


Application Design Screens:

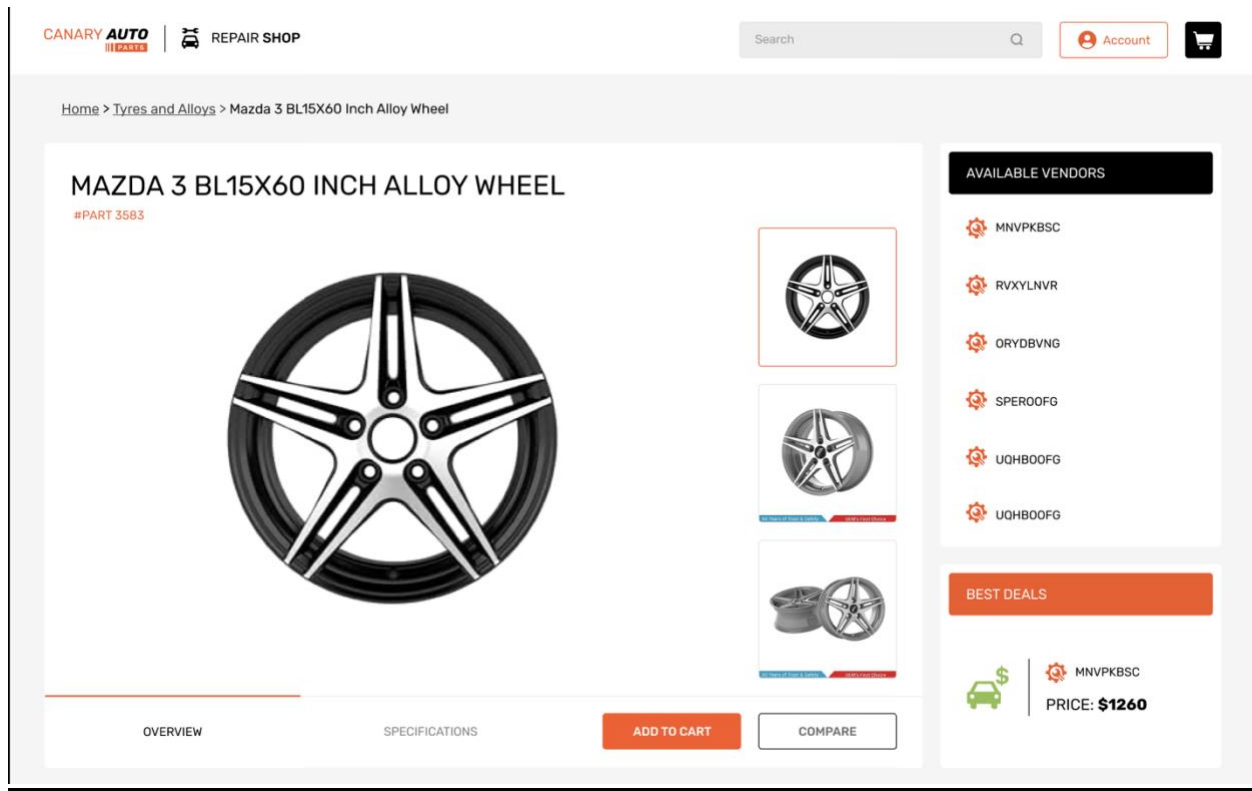
- **Login Screen**



- **Vendor Login Screen**



- **Product Page Screen (Repair Shop)**



Concluding Remarks:

The main focus when designing the diagram was to ensure simplicity when implementing the system but maximizing functionality on client-side queries. Additional tables that further compartmentalize functions were regarded as incredibly useful though it was quickly realized that there was a level of diminishing returns where they became redundant. Complexities when managing information to be parsed and distributed to users did carry complexities that required additional tables but, in these circumstances, the management of the data became easier as the necessary inputs could be sorted through the process of querying and returns only the relevant information. When reviewing and implementing the test queries it is clearly visible

that access to users is streamlined as most information can be found by querying two tables or less. This also aids in app design as it will have to manage fewer tables per query as well as decrease the time of the return of information as queries search fewer tables and maximize the effectiveness of indexes.

- As a learning experience, this reinforced the importance of planning the database. Future alterations need to be accounted for as the changing nature of a sales management system requires extra planning to maintain integrity.
- Learned the skills required to design and create a database according to business rules and need for referential integrity
- Testing the queries also reinforced that the system should be usable to app developers, web developers, and the layperson who may have to query the database, overly complex designs, or information that is too dispersed requires additional queries, indexes, and joins and may introduce complex queries to retrieve simple and essential information for end-users. This also aided us as administrators, efficient design allowed us to make full use of the data we planned to implement as well as decreased the time needed to implement the tables needed. It decreased the number of possible errors that would be generated as well as the streamlined design leaves less opportunity for errors to be introduced when interacting with the system.
- Improved teamwork skills required to translate database from MySQL to Oracle DBMS

- Gained some application development skills which are required to connect many users to our database and provide as much business value added as possible
- Developed our ability to think critically as a team through the complex problems required for IT project success

CREATE TABLES:

```
CREATE DATABASE cars4all;  
USE cars4all;  
drop database cars4all;
```

```
CREATE TABLE repairShop (  
    repid CHAR(4) PRIMARY KEY,  
    `name` VARCHAR(50),  
    address VARCHAR(50),  
    zip_code VARCHAR(10),  
    state CHAR(2),  
    license VARCHAR(50),  
    phone VARCHAR(25),  
    email VARCHAR(50),  
    subscriptionEndsOn DATE  
);
```

```
CREATE TABLE vendor (  
    vendid CHAR(4) PRIMARY KEY,  
    `name` VARCHAR(50),  
    address VARCHAR(50),  
    zip_code VARCHAR(10),  
    state CHAR(2),  
    license VARCHAR(50),  
    phone VARCHAR(25),  
    email VARCHAR(50),  
    subscriptionEndsOn DATE  
);
```

```
CREATE TABLE provider (  
    providerid CHAR(4) PRIMARY KEY,  
    `name` VARCHAR(50),  
    address VARCHAR(50),  
    zip_code VARCHAR(10),  
    state CHAR(2),  
    phone VARCHAR(25),  
    email VARCHAR(50)  
);
```

```
CREATE TABLE paymentCard (  
    cardid CHAR(5) PRIMARY KEY,  
    nameOnCard VARCHAR(25),  
    card_type VARCHAR(25),  
    card_number VARCHAR(25),  
    expiration_date DATE,  
    card_security_number VARCHAR(10),
```

```

        zip_code VARCHAR(10)
        repid CHAR(4),
        CONSTRAINT fk_paymentcard_repairshop_id FOREIGN KEY(repid)
            REFERENCES repairShop(repid)
            ON DELETE CASCADE
    );
/*-----DATASET STARTS-----
-----*/
-- Table structure for table `parts`
DROP
    TABLE IF EXISTS `parts`;
CREATE TABLE `parts` (
    `id` BIGINT(20) UNSIGNED NOT NULL AUTO_INCREMENT,
    `ts` TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
    `title` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    `_yf_slug` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    `product` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    `product_description` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    `cond` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    `stock_ref` VARCHAR(255) COLLATE UTF8_UNICODE_CI NOT NULL,
    PRIMARY KEY (`id`),
    UNIQUE KEY `title` (`title` , `_yf_slug`),
    KEY `ts` (`ts`),
    KEY `_yf_slug` (`_yf_slug`)
) ENGINE=INNODB AUTO_INCREMENT=5445 DEFAULT CHARSET=UTF8 COLLATE =
UTF8_UNICODE_CI;
/*-----DATASET ENDS-----
-----*/

CREATE TABLE stock (
    vendid CHAR(4),
    partid BIGINT(20) UNSIGNED,
    price DECIMAL(13 , 2 ),
    quantity INT,
    PRIMARY KEY (vendid , partid, price),
    CONSTRAINT fk_stock_vendor_vendid FOREIGN KEY (vendid)
        REFERENCES vendor (vendid)
        ON DELETE CASCADE,
    CONSTRAINT fk_stock_parts_partsid FOREIGN KEY (partid)
        REFERENCES parts (id)
        ON DELETE RESTRICT
);

CREATE TABLE cart (
    cartid INT PRIMARY KEY,
    repid CHAR(4),
    cart_date DATE,
    CONSTRAINT fk_cart_repairshop_repid FOREIGN KEY (repid)
        REFERENCES repairShop (repid)
);

CREATE TABLE cartItem (
    cartitemid INT PRIMARY KEY,
    cartid INT,
    partid BIGINT(20) UNSIGNED,
    quantity INT,

```

```
price DECIMAL(13 , 2 ),
vendid CHAR(4),
CONSTRAINT fk_cartItem_cart_cartid FOREIGN KEY (cartid)
REFERENCES cart (cartid)
ON DELETE CASCADE,
CONSTRAINT fk_cartItem_parts_id FOREIGN KEY (partid)
REFERENCES parts (id),
CONSTRAINT fk_cartItem_vendor_vendid FOREIGN KEY (vendid)
REFERENCES vendor (vendid)
);
CREATE TABLE `order` (
orderid INT PRIMARY KEY,
repid CHAR(4),
subtotal DECIMAL(13 , 2 ),
totaltax DECIMAL(13 , 2 ),
totalshippingfee DECIMAL(13 , 2 ),
ordertotal DECIMAL(13 , 2 ),
CONSTRAINT fk_order_repairshop_rep_id FOREIGN KEY (repid)
REFERENCES repairshop (repid)
);
CREATE TABLE orderItem (
orderitemid INT PRIMARY KEY,
orderid INT,
vendid CHAR(4),
partid BIGINT(20) UNSIGNED,
quantity INT,
priceperunit DECIMAL(13 , 2 ),
subtotal DECIMAL(13 , 2 ),
tax DECIMAL(13 , 2 ),
shippingfee DECIMAL(13 , 2 ),
grandtotal DECIMAL(13 , 2 ),
CONSTRAINT fk_orderItem_parts_id FOREIGN KEY (partid)
REFERENCES parts (id),
CONSTRAINT fk_orderItem_order_orderid FOREIGN KEY (orderid)
REFERENCES `order` (orderid),
CONSTRAINT fk_orderItem_vendor_vendid FOREIGN KEY (vendid)
REFERENCES vendor (vendid)
);
CREATE TABLE shipment (
shipid INT PRIMARY KEY,
providerid CHAR (4),
orderitemid INT,
shipdate DATE,
shiptracklink VARCHAR(100),
deliverydate DATE,
deliverymode VARCHAR(16),
deliveryaddress VARCHAR(50),
deliveryzipcode VARCHAR(10),
deliverystate CHAR(2),
CONSTRAINT fk_shipment_provider_providerid FOREIGN KEY (providerid)
REFERENCES provider (providerid),
CONSTRAINT fk_shipment_orderitem_orderitemid FOREIGN KEY (orderitemid)
REFERENCES orderitem (orderitemid)
);
```

```

CREATE TABLE payment (
    pmtid INT PRIMARY KEY,
    cardid CHAR(5),
    orderitemid INT,
    vendid CHAR(4),
    paymentdate DATE,
    paymenttype VARCHAR(16),
    paymentstatus VARCHAR(16),
    grandtotal DECIMAL(13 , 2 ),
    CONSTRAINT fk_payment_paymentCard_cardid FOREIGN KEY (cardid)
        REFERENCES paymentCard (cardid),
    CONSTRAINT fk_payment_orderitem_orderitemid FOREIGN KEY (orderitemid)
        REFERENCES orderitem (orderitemid),
    CONSTRAINT fk_payment_vendor_vendid FOREIGN KEY (vendid)
        REFERENCES vendor (vendid)
);

```

INSERT TABLES:

***Note:** We will be submitting an additional INSERT VALUES .txt file because, we inserted a large dataset. For the purpose of this document, we are adding a few values for each table.*

INSERT INTO vendor VALUES

```

('JNXW','pjniwpcyx','955 End Land',11554,'SC','OFSX6LLC9A','942-369-
9091','ahmed_vanzetten5598@imap.cc','2022-08-30 00:00:00'),
('MQEO','rjmjwvcj','407 Rocky Field
Estate',83290,'CO','QXJF01UQFV','431-742-
7364','javier_duyn7855@fastmail.cn','2022-09-04 00:00:00'),
('SEYY','ozyelgvk','107 Misty Ramp',78098,'KS','G5B0PWNDKO','476-751-
3012','bastiaans5744@fastmail.cn','2022-06-07 00:00:00'),
('QVXT','yudpyoir','P.O. Box 87319',24592,'MT','SUE4GRK5KV','459-002-
8788','burnett9057@airpost.net','2022-07-02 00:00:00');

```

INSERT INTO RepairShop VALUES

```

('SXUD','lywkkclo','P.O. Box 93144',57286,'ND','UTPEL4ERG','330-044-
5931','toya9507@fastmail.to','2022-05-25 00:00:00'),
('FXQP','rxrpzfeq','380 Park Quay',46716,'MA','TSBWVBN6UV','803-250-
4468','barton_rutledge4804@bestmail.us','2022-07-18 00:00:00'),
('FQXP','ltemwmvo','803 Heather
Expressway',86303,'GA','QULVXK5W2B','556-402-8117','honzelaar233@fast-
email.com','2022-07-24 00:00:00'),
('HVSS','ducqrnfl','P.O. Box 67544',41789,'OH','45PZBY0NPQ','280-639-
6110','winter_boonzayer1522@mailbolt.com','2021-11-12 00:00:00'),
('IIXN','oalksgoj','513 Grove Court',28192,'WA','8555VSM265','801-285-
5876','gina5449@warppmail.net','2021-10-14 00:00:00'),
('PVTB','zkdruhsv','148 Fourth Path',440,'MO','CH5JIWY3ZN','937-651-
3004','lisha2714@petml.com','2022-06-16 00:00:00'),
('VSKP','pknyituh','P.O. Box 63294',8675,'MD','T48NG3UXLE','259-603-
1594','elliott_druppers140@50mail.com','2022-05-13 00:00:00');

```

INSERT INTO provider VALUES

```
( 'EBYH', 'fryvfyxk', 'P.O. Box 99089', 77926, 'WV', '583-015-2194', 'sol9341@mailas.com'),
( 'UMLQ', 'jewmyyno', '818 Blue Lock Crest', 62051, 'AZ', '612-073-2287', 'england2606@fastmailbox.net'),
( 'NGLD', 'nzjbnqog', '562 Silver Peavey', 1349, 'MN', '406-942-0477', 'ruben_sims734@mailas.com'),
( 'HAKT', 'vkmmmyath', '513 Fox Dell', 50309, 'NC', '868-489-8849', 'kaye1063@fastmailbox.net'),
( 'TXTI', 'swfnwdbl', '442 Emerald Turnpike', 52427, 'WV', '284-968-0447', 'montoya8834@emailuser.net'),
( 'XALO', 'qchzodhu', '967 SW Second', 38532, 'VT', '789-110-3933', 'verrips967@16mail.com'),
( 'BJNQ', 'jdsbqeum', '900 Circle Bay', 25661, 'IN', '238-497-2781', 'dustin_snuif3045@yepmail.net');
```

INSERT INTO parts VALUES

```
(1, '2018-03-30 06:13:33', 'CITROEN BERLINGO MANUAL VEHICLE WRECKING PARTS 2002', '/all-parts/currently-dismantling/citroen-berlingo-manual-vehicle-wrecking-parts-2002', 'STK-VA01836', 'CITROEN BERLINGO MANUAL VEHICLE WRECKING PARTSPRICE STATED IS FOR 1 WHEEL NUTTHIS VEHICLE IS FOR PARTS USE ONLY NOT FOR SALE COMPLETESUITS 2002 MODELS', 'THIS PART IS USED', 'Ref #VA01836'),
(2, '2018-03-30 06:13:34', 'DAIHATSU ROCKY MANUAL VEHICLE WRECKING PARTS 1994', '/all-parts/currently-dismantling/daihatsu-rocky-manual-vehicle-wrecking-parts-1994', 'STK-VA01756', 'DAIHATSU ROCKY MANUAL VEHICLE WRECKING PARTSPRICE STATED IS FOR 1 WHEEL NUTTHIS VEHICLE IS FOR PARTS USE ONLY NOT FOR SALE COMPLETESUITS 1994 MODELS', 'THIS PART IS USED', 'Ref #VA01756'),
(3, '2018-03-30 06:13:36', 'DAIHATSU TERIOS MANUAL VEHICLE WRECKING PARTS 2000', '/all-parts/currently-dismantling/daihatsu-terios-manual-vehicle-wrecking-parts-2000', 'STK-VA01875', 'DAIHATSU TERIOS MANUAL VEHICLE WRECKING PARTSPRICE STATED IS FOR 1 WHEEL NUTTHIS VEHICLE IS FOR PARTS USE ONLY NOT FOR SALE COMPLETESUITS 2000 MODELS', 'THIS PART IS USED', 'Ref #VA01875'),
(4, '2018-03-30 06:13:39', 'FORD COURIER MANUAL VEHICLE WRECKING PARTS 2004', '/all-parts/currently-dismantling/ford-courier-manual-vehicle-wrecking-parts-2004-11', 'STK-VA01850', 'FORD COURIER MANUAL VEHICLE WRECKING PARTSPRICE STATED IS FOR 1 WHEEL NUTTHIS VEHICLE IS FOR PARTS USE ONLY NOT FOR SALE COMPLETESUITS 2004 MODELS', 'THIS PART IS USED', 'Ref #VA01850'),
(5, '2018-03-30 06:13:49', 'FORD EVEREST AUTO VEHICLE WRECKING PARTS 2015', '/all-parts/currently-dismantling/ford-everest-auto-vehicle-wrecking-parts-2015', 'STK-VA01416', 'FORD EVEREST AUTO VEHICLE WRECKING PARTSPRICE STATED IS FOR 1 WHEEL NUTTHIS VEHICLE IS FOR PARTS USE ONLY NOT FOR SALE COMPLETESUITS 2015 MODELS', 'THIS PART IS USED', 'Ref #VA01416');
```

INSERT INTO paymentcard VALUES

```
( '8HAK5', 'Sal Langenfeld ', 'visa', 7072390003118740, '2025-09-27 00:00:00', 625, 8675, 'SXUD'),
( '87I33', 'Karri Crepeau ', 'mastercard', 118376351620168, '2022-05-01 00:00:00', 707, 62865, 'FXQP'),
( 'B28AD', 'Denyse Bose ', 'Amex', 2134231929173700, '2022-10-02 00:00:00', 393, 15255, 'FQXP');
```



```

('JC0JH','Aurora Kraker ','visa',8144755258670260,'2024-05-19
00:00:00',861,97996,'HVSS'),
('1A8C6','Laurie Feathers','mastercard',4469275311515220,'2024-03-15
00:00:00',79,76459,'IIXN'),
('23C07','Maragret Hilgen','Amex',1501742348899840,'2023-11-15
00:00:00',662,91674,'PVTB'),
('G0KGA','Ammie Preslar ','visa',8723078533728880,'2022-07-28
00:00:00',901,85756,'VSKP'),
('J6DHH','Loretta Kitzmil','mastercard',7656653003517750,'2022-02-21
00:00:00',599,25771,'CNQK'),

```

INSERT INTO stock VALUES

```

('XMSY',533,1551,469),
('LJCC',464,2179,403),
('LJIM',670,3287,493),
('LLOG',909,4795,265),
('WBWE',99,1402,267),
('ALJJ',133,4298,403),
('OITD',261,3047,461),
('WBWE',547,665,252),
('HKQI',7,3391,395),
('YEVb',616,2439,338),
('ANTS',376,2479,432),
('WBWE',843,3416,56),
('JNXW',933,4918,189),
('UXXC',119,1555,381),

```

INSERT INTO `order` VALUES

```

(2501,'SXUD',NULL,NULL,NULL,NULL),
(2502,'FXQP',NULL,NULL,NULL,NULL),
(2503,'FQXP',NULL,NULL,NULL,NULL),
(2504,'HVSS',NULL,NULL,NULL,NULL),
(2505,'IIXN',NULL,NULL,NULL,NULL),
(2506,'PVTB',NULL,NULL,NULL,NULL),
(2507,'VSKP',NULL,NULL,NULL,NULL),
(2508,'CNQK',NULL,NULL,NULL,NULL),
(2509,'ZXOC',NULL,NULL,NULL,NULL),
(2510,'VTNT',NULL,NULL,NULL,NULL),
(2511,'KUCP',NULL,NULL,NULL,NULL),
(2512,'XNEO',NULL,NULL,NULL,NULL),

```

INSERT INTO orderitem VALUES

```

(3001,2501,'XMSY',533,9,1551,13959,17,69,14045),
(3002,2501,'LJCC',464,10,2179,21790,40,54,21884),
(3003,2501,'LJIM',670,3,3287,9861,28,191,10080),
(3004,2501,'LLOG',909,8,4795,38360,14,176,38550),
(3005,2501,'WBWE',99,7,1402,9814,14,51,9879),
(3006,2501,'ALJJ',133,8,4298,34384,28,187,34599),
(3007,2501,'OITD',261,5,3047,15235,40,78,15353),
(3008,2501,'WBWE',547,10,665,6650,11,54,6715),

```

INSERT INTO payment VALUES

```

(100001,NULL,3001,'XMSY',NULL,NULL,NULL,NULL),
(100002,NULL,3002,'LJCC',NULL,NULL,NULL,NULL),

```

```
(100003, NULL, 3003, 'LJIM', NULL, NULL, NULL, NULL),
(100004, NULL, 3004, 'LLOG', NULL, NULL, NULL, NULL),
(100005, NULL, 3005, 'WBWE', NULL, NULL, NULL, NULL),
(100006, NULL, 3006, 'ALJJ', NULL, NULL, NULL, NULL),
(100007, NULL, 3007, 'OITD', NULL, NULL, NULL, NULL),
(100008, NULL, 3008, 'WBWE', NULL, NULL, NULL, NULL),
(100009, NULL, 3009, 'HKQI', NULL, NULL, NULL, NULL),
```

SQL QUERIES

(Screen: Vendor Login Screen)

-- 1 Total Revenue of vendor

```
SELECT v.vendid AS 'Vendor ID',
       sum(oi.grandtotal) AS 'Revenue'
FROM orderitem oi
     INNER JOIN vendor v
       ON oi.vendid=v.vendid
GROUP BY oi.vendid;
```

-- 2 Total Orders for vendor

```
SELECT v.vendid AS 'Vendor ID',
       count(oi.orderitemid) AS 'Total Orders'
FROM orderitem oi
     INNER JOIN vendor v
       ON oi.vendid=v.vendid
GROUP BY oi.vendid;
```

-- 3 Total Parts listed by vendor (different parts, not quantity)

```
SELECT v.vendid AS 'Vendor ID',
       count(s.partid) AS 'Total Parts Listed'
FROM vendor v
     INNER JOIN stock s
       ON v.vendid=s.vendid
GROUP BY s.vendid;
```

-- 4 Vendors whose Subscription will end soon(30 days from current date, sorted by days left)

```
SELECT v.vendid AS 'Vendor ID',
       DATEDIFF(v.subscriptionEndsOn, CURDATE()) AS 'Subscription Expires
In(Days)'
FROM vendor v
WHERE DATEDIFF(v.subscriptionEndsOn, CURDATE()) < 30
ORDER BY `Subscription Expires In(Days)`;
```

(Screen: Product Page Screen (Repair Shop))**-- 1 Search Engine**

```
SELECT DISTINCT p.id AS 'Part ID',  
               p.title AS 'Search Suggestion'  
FROM parts p  
WHERE p.title LIKE 'Ford % wheel %';
```

-- 2 Available Vendors

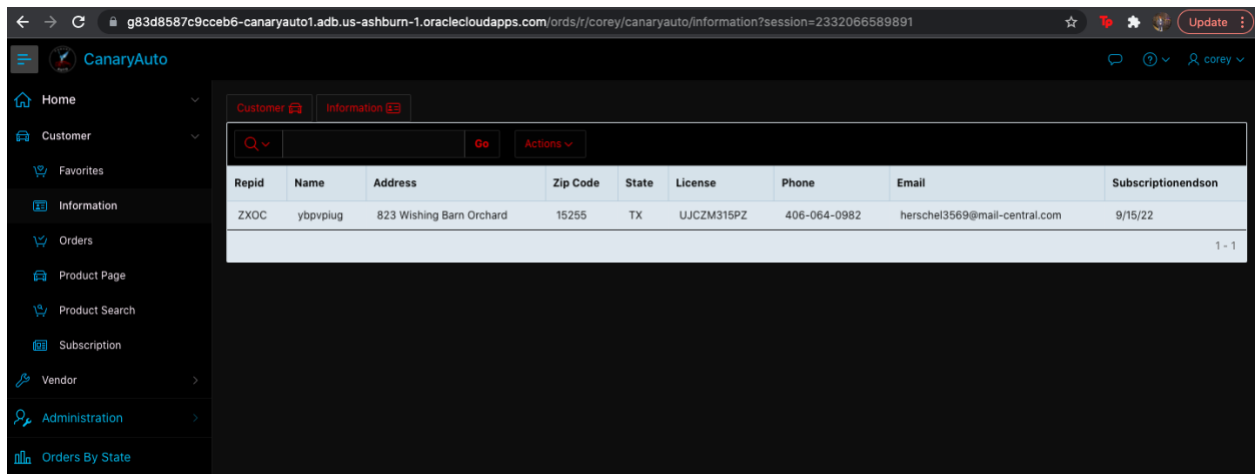
```
CREATE VIEW availablevendor  
AS SELECT v.`name` AS vendorname, s.partid AS partid, s.price AS price,  
s.quantity AS quantity  
   FROM vendor v,stock s  
  where v.vendid=s.vendid;  
  
SELECT vendorname, price, quantity  
   FROM availablevendor  
  WHERE partid=75;
```

-- 3 Lowest price of part offered by vendor

```
SELECT p.title,s.vendid AS 'Vendor ID', min(s.price) AS 'Sorted by price',  
s.quantity AS 'Units in Stock'  
FROM parts p  
   INNER JOIN stock s  
     ON s.partid=p.id  
    WHERE p.title='FORD FIESTA WZ STEEL WHEEL HUB CAP'  
   GROUP BY p.title,s.vendid, s.quantity  
   ORDER BY min(s.price);
```

SQL Testing (Oracle APEX)

Customer Information Page:



CanaryAuto

Customer Information

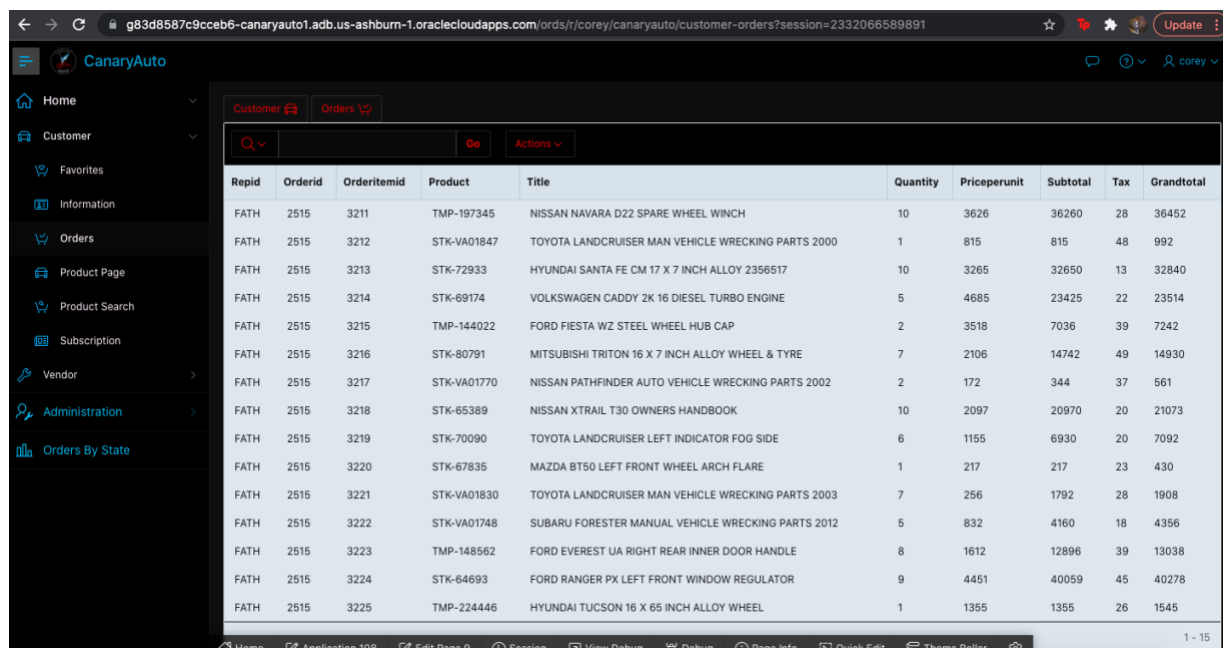
Search: Go Actions

Repid	Name	Address	Zip Code	State	License	Phone	Email	Subscriptionendson
ZXOC	ybpvplug	823 Wishing Barn Orchard	15255	TX	UJCZM315PZ	406-064-0982	herschel3569@mail-central.com	9/15/22

1 - 1

```
--RepairShopID 'ZXOC' visits Customer Information Page
Create View Corey.RepairShop_InfoPage_View
AS Select *
From RepairShop r
Where r.repid='ZXOC';
```

Customer Orders Page:



CanaryAuto

Customer Orders

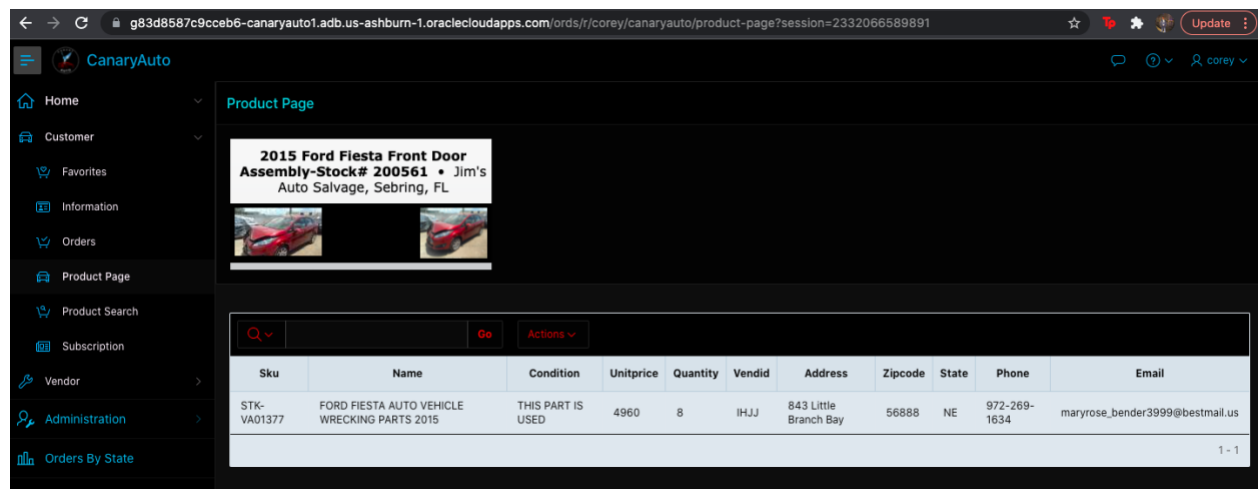
Search: Go Actions

Repid	Orderid	Orderitemid	Product	Title	Quantity	Priceperunit	Subtotal	Tax	Grandtotal
FATH	2515	3211	TMP-197345	NISSAN NAVARA D22 SPARE WHEEL WINCH	10	3626	36260	28	36452
FATH	2515	3212	STK-VA01847	TOYOTA LANDCRUISER MAN VEHICLE WRECKING PARTS 2000	1	815	815	48	992
FATH	2515	3213	STK-72933	HYUNDAI SANTA FE CM 17 X 7 INCH ALLOY 2356517	10	3265	32650	13	32840
FATH	2515	3214	STK-69174	VOLKSWAGEN CADDY 2K 16 DIESEL TURBO ENGINE	5	4685	23425	22	23514
FATH	2515	3215	TMP-144022	FORD FIESTA WZ STEEL WHEEL HUB CAP	2	3518	7036	39	7242
FATH	2515	3216	STK-80791	MITSUBISHI TRITON 16 X 7 INCH ALLOY WHEEL & TYRE	7	2106	14742	49	14930
FATH	2515	3217	STK-VA01770	NISSAN PATHFINDER AUTO VEHICLE WRECKING PARTS 2002	2	172	344	37	561
FATH	2515	3218	STK-65389	NISSAN XTRAIL T30 OWNERS HANDBOOK	10	2097	20970	20	21073
FATH	2515	3219	STK-70090	TOYOTA LANDCRUISER LEFT INDICATOR FOG SIDE	6	1155	6930	20	7092
FATH	2515	3220	STK-67835	MAZDA BT50 LEFT FRONT WHEEL ARCH FLARE	1	217	217	23	430
FATH	2515	3221	STK-VA01830	TOYOTA LANDCRUISER MAN VEHICLE WRECKING PARTS 2003	7	256	1792	28	1908
FATH	2515	3222	STK-VA01748	SUBARU FORESTER MANUAL VEHICLE WRECKING PARTS 2012	5	832	4160	18	4356
FATH	2515	3223	TMP-148562	FORD EVEREST UA RIGHT REAR INNER DOOR HANDLE	8	1612	12896	39	13038
FATH	2515	3224	STK-64693	FORD RANGER PX LEFT FRONT WINDOW REGULATOR	9	4451	40059	45	40278
FATH	2515	3225	TMP-224446	HYUNDAI TUCSON 16 X 65 INCH ALLOY WHEEL	1	1355	1355	26	1545

1 - 15

```
--RepairShopID 'FATH' visits Customer Orders Page
Create View Corey.Customer_Orders_View
As Select o.repid, oi.ORDERID, oi.ORDERITEMID, p.product, p.title,
oi.quantity, oi.PRICEPERUNIT, oi.SUBTOTAL, oi.Tax, oi.GRANDTOTAL
From Orders o Inner Join Orderitem oi On o.orderid=oi.orderid
Inner Join Vendor v On oi.vendid=v.VENDID
Inner Join RepairShop rs On o.repid=rs.repid
Inner Join Parts p On oi.partid=p.id
Where o.repid='FATH'
Order By oi.orderid, oi.orderitemid;
```

Product Page:



The screenshot shows a web application interface for 'CanaryAuto'. The left sidebar contains navigation links: Home, Customer, Favorites, Information, Orders, Product Page (selected), Product Search, Subscription, Vendor, Administration, and Orders By State. The main content area is titled 'Product Page' and displays a product card for '2015 Ford Fiesta Front Door Assembly-Stock# 200561 • Jim's Auto Salvage, Sebring, FL'. Below the product card is a table with the following data:

SKU	Name	Condition	Unitprice	Quantity	Vendid	Address	Zipcode	State	Phone	Email
STK-VA01377	FORD FIESTA AUTO VEHICLE WRECKING PARTS 2015	THIS PART IS USED	4960	8	IHJJ	843 Little Branch Bay	56888	NE	972-269-1634	maryrose_bender3999@bestmail.us

The table is displayed with a search bar and a 'Go' button above it. The page number '1 - 1' is visible in the bottom right corner.

```
--Repair Shop views Product Page for ProductID 7
Create View Corey.Customer_ProductPage_View4
As Select p.product as SKU, p.Title as Name, p.cond as Condition,
oi.PRICEPERUNIT as UnitPrice, oi.quantity as Quantity, v.vendid, v.address as
Address, v.zip_code as ZipCode, v.state as State, v.phone as Phone, v.email
as Email
From Parts p Inner Join OrderItem oi On p.id=oi.PARTID
Inner Join Orders o On oi.orderid=o.orderid
Inner Join Vendor v On oi.vendid=v.vendid
Where p.id=7 AND rownum=1;
```

Product Search Page:

Sku	Product	Condition	Vendor	Price	Quantity
STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	THIS PART IS USED	LLOG	4207	451
STK-VA01886	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2013	THIS PART IS USED	UITZ	3527	472
STK-VA01886	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2013	THIS PART IS USED	ZQWQ	3122	365
STK-VA01862	HYUNDAI SANTA FE AUTO VEHICLE WRECKING PARTS 2004	THIS PART IS USED	TLZF	4966	435
STK-VA01892	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	ZQWQ	3446	282
STK-VA01892	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	LHNX	4054	42
STK-VA01892	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	ANTS	4234	179
STK-VA01892	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	LLAJ	1226	382
STK-VA01903	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	PMMH	1663	319
STK-VA01903	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	FWPF	1856	410
STK-VA01903	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2005	THIS PART IS USED	OITD	3236	489
STK-VA01911	HYUNDAI TUCSON AUTO VEHICLE WRECKING PARTS 2009	THIS PART IS USED	AYRY	1049	153
STK-VA01752	ISUZU MU-X MANUAL VEHICLE WRECKING PARTS 2015	THIS PART IS USED	WHGW	1448	312
STK-VA01752	ISUZU MU-X MANUAL VEHICLE WRECKING PARTS 2015	THIS PART IS USED	AZCA	4713	369
STK-VA01752	ISUZU MU-X MANUAL VEHICLE WRECKING PARTS 2015	THIS PART IS USED	QOEX	4141	128
STK-VA01752	ISUZU MU-X MANUAL VEHICLE WRECKING PARTS 2015	THIS PART IS USED		4210	118

```
--Customer Searches for Parts in Catalog
Create View Corey.Customer_Product_View
As Select p.product as SKU, p.title as Product, p.cond as Condition,
v.vendid as Vendor, s.price as Price, s.quantity as Quantity
From Parts p Inner Join Stock s On p.id=s.PARTID
Inner Join Vendor v On s.vendid=v.vendid;
```

Add Product Page:

The screenshot shows the 'Add Product' page in the CanaryAuto application. The page has a dark theme and a sidebar on the left with navigation links: Home, Customer, Vendor, Add Product (active), Orders, Sales By Customer, Sales By SKU, Administration, and Orders By State. The main content area is titled 'Product Details' and contains four input fields: Product, Condition, Price, and Quantity. Below these fields are 'Cancel' and 'Create' buttons. The bottom of the page shows a footer with 'Release 1.0' and a series of icons for navigation and development tools.

Vendor Order Page:

The screenshot shows the 'Vendor Order' page in the CanaryAuto application. The page has a dark theme and a sidebar on the left with navigation links: Home, Customer, Vendor, Add Product, Orders (active), Sales By Customer, Sales By SKU, Administration, and Orders By State. The main content area is titled 'Vendor Orders' and contains a table with the following columns: Order#, Item#, Vendor, Sku, Product, Quantity, Unitprice, Subtotal, Tax, Shippingfee, Grandtotal, Customer, Shipaddress, Zipcode, State, License, and Price. The table contains five rows of data, all for the vendor 'ANTS' and the product 'HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012'. The bottom of the page shows a footer with 'Release 1.0' and a series of icons for navigation and development tools.

Order#	Item#	Vendor	Sku	Product	Quantity	Unitprice	Subtotal	Tax	Shippingfee	Grandtotal	Customer	Shipaddress	Zipcode	State	License	Price
2530	3439	ANTS	STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	8	3793	30344	13	186	30543	lywkkclo	P.O. Box 93144	57286	ND	UTTPEL4ERG	30543
2530	3440	ANTS	STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	1	198	198	31	141	370	lywkkclo	P.O. Box 93144	57286	ND	UTTPEL4ERG	370
2530	3441	ANTS	STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	5	179	895	36	158	1089	lywkkclo	P.O. Box 93144	57286	ND	UTTPEL4ERG	1089
2530	3442	ANTS	STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	9	4802	43218	27	150	43395	lywkkclo	P.O. Box 93144	57286	ND	UTTPEL4ERG	43395
2530	3443	ANTS	STK-VA01823	HYUNDAI IX35 AUTO VEHICLE WRECKING PARTS 2012	10	906	9060	41	173	9274	lywkkclo	P.O. Box 93144	57286	ND	UTTPEL4ERG	9274

```

--VendorID 'ANTS' visits Vendor Orders Page
Create View Corey.ANTS_View (Order#, Item#, Vendor, SKU, Product,
Quantity, UnitPrice, SubTotal, Tax, ShippingFee, GrandTotal, Customer,
ShipAddress, ZipCode, State, License, Phone, Email)
As Select ORDERITEM.ORDERID as ORDER#,
ORDERITEM.ORDERITEMID as ITEM#,
VENDOR.VENDID as VENDOR,
PARTS.PRODUCT as SKU,
PARTS.TITLE as PRODUCT,
ORDERITEM.QUANTITY as QUANTITY,
ORDERITEM.PRICEPERUNIT as UNITPRICE,
ORDERITEM.SUBTOTAL as SUBTOTAL,
ORDERITEM.TAX as TAX,
ORDERITEM.SHIPPINGFEE as SHIPPINGFEE,
ORDERITEM.GRANDTOTAL as GRANDTOTAL,
REPAIRSHOP.NAME as CUSTOMER,
REPAIRSHOP.ADDRESS as SHIPADDRESS,
REPAIRSHOP.ZIP_CODE AS ZIPCODE,
REPAIRSHOP.STATE AS STATE,
REPAIRSHOP.LICENSE AS LICENSE,
REPAIRSHOP.PHONE AS PHONE,
REPAIRSHOP.EMAIL AS EMAIL
from PARTS PARTS,
VENDOR VENDOR,
ORDERITEM ORDERITEM,
REPAIRSHOP REPAIRSHOP
where VENDOR.VENDID='ANTS' AND rownum <=100;

```

Vendor Sales by Customer Page:



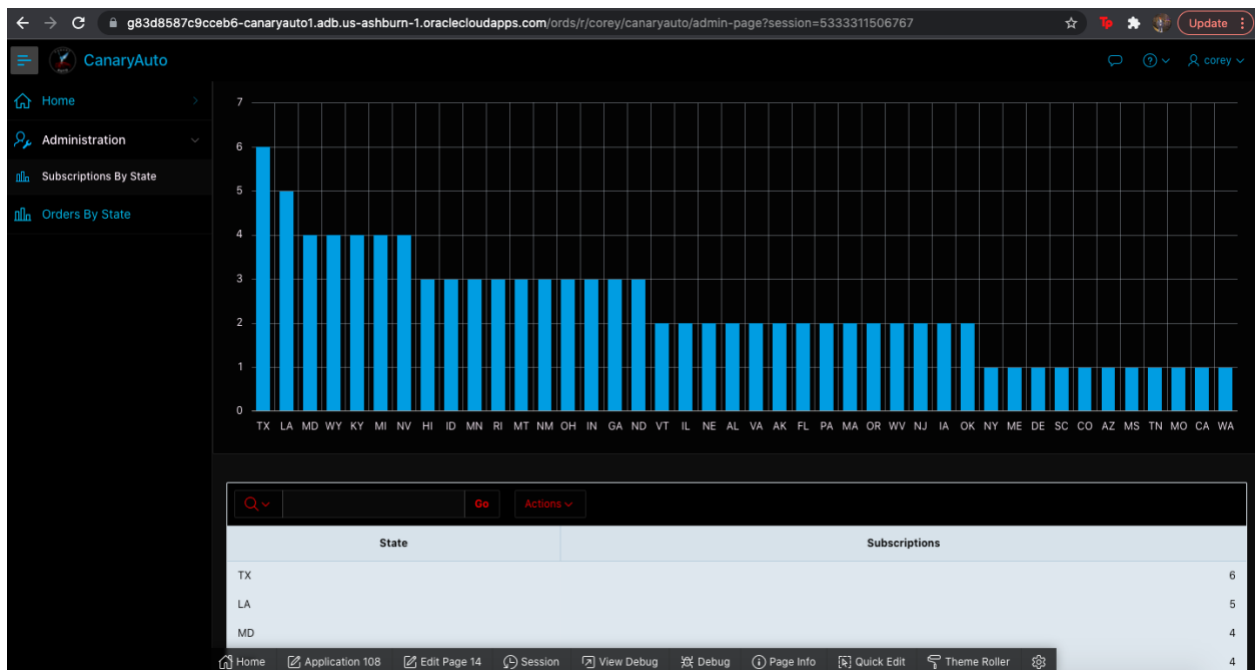

```
--VENDID 'ANTS' visits Vendor Sales by Customer Page
Create View Corey.ANTS_SalesRepairShop_View1 (Customer, Vendor, Sales)
As Select rs.repid as Customer, v.vendid as Vendor, sum(oi.grandtotal) as
Sales
from PARTS p Inner Join ORDERITEM oi On p.id=oi.partid
Inner Join VENDOR v On oi.vendid=v.VENDID
Inner Join orders o On oi.ORDERID=o.orderid
Inner Join REPAIRSHOP rs On o.repid=rs.repid
Group By rs.repid, v.vendid
Having v.vendid='ANTS'
Order By Sales DESC;
```

Vendor Sales by SKU Page:



```
--VendorID 'ANTS' visits Vendor Sales by SKU Page
Select p.PRODUCT as SKU, v.vendid as Vendor, sum(oi.grandtotal) as Sales
from PARTS p Inner Join ORDERITEM oi On p.id=oi.partid
Inner Join VENDOR v On oi.vendid=v.VENDID
Inner Join orders o On oi.ORDERID=o.orderid
Inner Join REPAIRSHOP rs On o.repid=rs.repid
Group By p.product, v.vendid
Having v.vendid='ANTS'
Order By Sales DESC;
```

Admin Subscribers by State Page:



```
--CanaryAuto Manager views Admin Subscription by State Page
Select r.state, count(r.REPID) As Subscriptions
From Repairshop r
Group By r.state
Order By count(r.Repid) DESC;
```

Admin Orders by State Page:



```
--CanaryAuto Manager views Admin Orders by State Page
Select r.state, count(oi.orderitemid) As Orders
From Repairshop r Inner Join Orders o On r.repid=o.repid
Inner Join OrderItem oi On o.orderid=oi.orderid
Group By r.state
Order By count(oi.orderitemid) DESC
```

Oracle APEX Application:

Link: [Canary Auto Parts Oracle APEX](#)

Username: Corey

Password: CanaryAuto21

Work Contribution:

TEAM MEMBER	CONTRIBUTION
Corey Slayton	16.65 %
Srivardhan Ranga	16.65 %
Kinnari Janakbhai Patel	16.65 %
Paul Tamayo	16.65 %
Frantz-Michel Bataille	16.65 %
Joseph Camacho	16.65 %
TOTAL	100%

Query Results:*(Screen: Vendor Login Screen)***-- 1 Total Revenue of vendor**

vendorrevenue

Vendor ID	Revenue
ALJJ	184072.00
ANDN	237380.00
ANTS	287270.00
AYRY	353082.00
AZCA	196514.00
BYRU	53572.00
CBIZ	419083.00
DOGU	31027.00
EHGK	91307.00
EPCO	209254.00
FWPF	116924.00
HKQI	74224.00
IEPP	152638.00
IHJJ	103310.00
INIF	267948.00
ISBO	107458.00
JBAX	104211.00
JNVF	131626.00
JNXW	197906.00
KWMP	464711.00
LBNF	157956.00
LHNX	93865.00
LJCC	228423.00
LJIM	86328.00
LLAJ	87832.00
LLOG	268760.00
LSUY	65584.00
MDTE	160642.00
MIMK	608540.00
MQEO	107799.00
OITD	273183.00
PMMH	148716.00
QKHB	88897.00
QOEX	89539.00
QTIQ	274779.00
RKJD	177007.00
RLSQ	87050.00
RRXM	21118.00
RTIG	173377.00
RZLC	74854.00
SCJT	50948.00
SDAY	140658.00
SJKD	122563.00
TLZF	176513.00
TZEH	111477.00
UITZ	156652.00
UPMO	27800.00
UUPG	102137.00
UWHF	69384.00
UXXC	137537.00
VHTG	90754.00
VSTW	58661.00
WBWE	304607.00
WGTD	375802.00
WHGW	34681.00
WLQO	75235.00
XMSY	297526.00
XTAH	292117.00
YASD	239428.00
YEVB	88701.00
YJSS	260153.00
ZQWQ	287823.00

-- 2 Total Orders for vendor

vendorordercount

Vendor ID	Total Orders
ALJJ	10
ANDN	16
ANTS	17
AYRY	32
AZCA	13
BYRU	3
CBIZ	28
DOGU	4
EHGK	7
EPCO	14
FWPF	11
HKQI	4
IEPP	14
IHJJ	5
INIF	22
ISBO	8
JBAX	7
JNVF	16
JNXW	16
KWMP	32
LBNF	9
LHNX	6
LJCC	15
LJIM	4
LLAJ	7
LLOG	15
LSUY	8
MDTE	11
MIMK	34
MQEO	8
OITD	19
PMMH	11
QKHB	8
QOEX	9
QTIQ	15
RKJD	12
RLSQ	5
RRXM	4
RTIG	11
RZLC	7
SCJT	5
SDAY	12
SJKD	7
TLZF	10
TZEH	8
UITZ	7
UPMO	6
UUPG	7
UWHF	5
UXXC	16
VHTG	8
VSTW	3
WBWE	23
WGTD	18
WHGW	8
WLQO	6
XMSY	20
XTAH	18
YASD	19
YEVB	8
YJSS	21
ZQWQ	16

-- 3 Total Parts listed by vendor (different parts, not quantity)

vendorpartscount

Vendor ID	Total Parts Listed
ALJJ	18
ANDN	27
ANTS	31
AYRY	55
AZCA	22
BYRU	6
CBIZ	57
DOGU	13
EHGK	15
EPCO	23
FWPF	26
HKQI	16
IEPP	17
IHJJ	9
INIF	37
ISBO	13
JBAX	9
JNVF	32
JNXW	30
KWMP	56
LBNF	18
LHNX	12
LJCC	28
LJIM	11
LLAJ	12
LLOG	22
LSUY	14
MDTE	14
MIMK	52
MQEO	12
OITD	35
PMMH	21
QKHB	11
QOEX	15
QTIQ	27
RKJD	21
RLSQ	8
RRXM	11
RTIG	18
RZLC	12
SCJT	6
SDAY	28
SJKD	13
TLZF	16
TZEH	12
UITZ	14
UPMO	13
UUPG	17
UWHF	9
UXXC	25
VHTG	12
VSTW	7
WBWE	36
WGTD	32
WHGW	9
WLQO	8
XMSY	29
XTAH	30
YASD	31
YEBB	13
YJSS	33
ZQWQ	25

-- 4 Vendors whose Subscription will end soon(30 days from current date, sorted by days left)

vendorsubdate

Vendor ID	Subscription Expires In(Days)
LLAJ	5
RTIG	7
WHGW	11
SCJT	12
OITD	16
WGTD	17
XMSY	18
BYRU	24
LHNX	26

(Screen: Product Page Screen (Repair Shop))

-- 1 Search Engine

searchresults

Search Suggestion	Part ID
FORD RANGER PJ LEFT FRONT WHEEL ARCH FLARE	5194
FORD RANGER PJ LEFT FRONT WHEEL ARCH FLARE	232
FORD RANGER PJ RIGHT REAR WHEEL ARCH FLARE	5196
FORD RANGER PJ RIGHT REAR WHEEL ARCH FLARE	234
FORD RANGER PK LEFT REAR WHEEL ARCH FLARE	5197
FORD RANGER PK LEFT REAR WHEEL ARCH FLARE	239

-- 2 Available Vendors

Available Vendors

vendorname	price	quantity
pmzmcavt	313.00	154
jcvabzbf	4649.00	134
gfisfijj	3356.00	33

-- 3 Lowest price of part offered by vendor

lowestpriceavailable

title	Vendor ID	Sorted by price	Units in Stock
FORD FIESTA WZ STEEL WHEEL HUB CAP	INIF	910.00	482
FORD FIESTA WZ STEEL WHEEL HUB CAP	LLAJ	2216.00	486
FORD FIESTA WZ STEEL WHEEL HUB CAP	YEVb	2505.00	242
FORD FIESTA WZ STEEL WHEEL HUB CAP	ALJJ	3285.00	29
FORD FIESTA WZ STEEL WHEEL HUB CAP	KWMP	3518.00	384
FORD FIESTA WZ STEEL WHEEL HUB CAP	ZQWQ	4470.00	295