Loves’s Demo - Project Specification

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# **1.0 Changes**

|  |  |  |
| --- | --- | --- |
| **Date** | **Section** | **Change** |
| 4/11/2020 | 3.1 | Development org no longer exists. Section left as is for historical reference. |

# 2.0 Objective

Purpose of this project is to demonstrate a simple fuel price updating implementation, for use by each store location. The tool will be hosted within Salesforce using standard features, and incorporate custom components as required.

For this demonstration, assumptions were made about Love’s operations based on publicly available information. Salesforce components and standard items have been configured only as far as needed to produce this demonstration.

# 3.0 Data Model

## 3.1 Locations

For this project, 2 existing Love’s locations were used. A travel stop and country store were selected to compare between the two different market segments. Google Maps were used to identify locations which also had one or two competing truck stops or convenience store / gas stations within a city block or two. For purpose of this demonstration, all Love’s locations will be referred to as a Store.

It was assumed that:

* A store can be associated with many competitors
* Many stores can be associated with one competitor

The Salesforce data model was constructed to allow reporting comparisons between a given store’s performance and its competition.

**Travel Stop**

* OKC store #203
* Selected competitors:
  + <http://www.ta-petro.com/location/ok/ta-oklahoma-city-west>
  + <https://www.pilotflyingj.com/stores/0460>

**Country Store**

* Watonga store #1
* Selected competitor:
  + <https://dominocstores.com/locations/location7/>

## 3.2 Users

3 end users will be created to demonstrate how different security restrictions operate:

* 2 Managers, one for each location.
* 1 Cashier, one for one location

Cashiers are the most restricted, with the ability to only view location and pricing information. Managers will have create, read and edit permissions in addition.

A Guest User will be created to allow this project’s audience to view Salesforce components and setup, as an administrator would. For security purposes, this user will be restricted to read access on Setup components, while able to add new records.

For purposes of this project, it was assumed that a location’s manager would be the one to input fuel price changes, rather than another internal Love’s team.

## 3.3 Fuel Prices

For this project, a history of average fuel prices per day was compiled using data from this link <http://fuelinsights.gasbuddy.com/Charts>. The chart was set to view 3 months for Oklahoma City, from October 2016 to December 2016. This was used as a guide for the general pricing trends.

The starting points for each fuel price, were the values found online for each store and competitor for December 27, 2016. The trend values were used to derive sample prices back through October 2, 2016. The start month was chosen as the beginning of an assumed fiscal year of October-September, and the historical sample is intended to depict the first fiscal quarter.

An additional variable element was introduced to the generated fuel prices, to ensure that the price spread between each location / fuel type did not remain static. To do this, a random cent value ranging between -0.04 to +0.04 was added to the historical price for each instance of location and date.

To see how the historical fuel prices were created, visit the following sheets on the [Love's Demo - Sample Data](https://github.com/mdwboyd/project-demos/blob/master/salesforce/loves-demo/Loves%20Demo%20-%20Sample%20Data.xlsx) spreadsheet.

* **Fuel Price Trend**
  + This is where the trend data was recorded
* **Fuel Entry History**
  + This is where the Fuel Entry historical records were created, using the trend data

# 4.0 Salesforce

## 4.1 Instance

The Salesforce instance hosting the application can be accessed by following the link <https://lovesdemo-dev-ed.my.salesforce.com/>

Credentials for each user are shown below, since this is for demonstration and testing purposes only.

|  |  |  |
| --- | --- | --- |
| **Guest User** | **Username** | guest@lovesdemo.com |
| **Password** | Guser2017 |

|  |  |  |
| --- | --- | --- |
| **OKC Manager** | **Username** | omanager@lovesdemo.com |
| **Password** | Okcmanager2017 |

|  |  |  |
| --- | --- | --- |
| **OKC Cashier** | **Username** | ocashier@lovesdemo.com |
| **Password** | Okccashier2017 |

|  |  |  |
| --- | --- | --- |
| **Watonga Manager** | **Username** | wmanager@lovesdemo.com |
| **Password** | Jwgmanager2017 |

The Salesforce instance is a Developer Edition, which is free to use but limited in scope. As a result, some standard functions will be adapted to ensure the tool works as intended.

## 4.2 Users

As stated in section [3.2](#_3.2_Users_1), 3 users will be created for this project. For the Manager and Cashier users, the Salesforce Platform license will be assigned. As the tool will be mostly custom functionality, this license should allow for the sample users to access the application and use it successfully.

Cashiers will be allowed to view the data contained in the custom objects described in section [4.3](#_3.3_Objects). Managers will be allowed to created, view, and edit the data contained in the same custom objects.

### 4.2.1 Roles

Roles determine the basic level of record sharing in an organization. A simple hierarchy will be created for managers and cashiers, as shown below:

* Love’s Demo
  + Administrator
  + Sales
    - Manager
      * Cashier

### 4.2.2 Profiles

Profiles set the basic permission levels for each user. One profile can apply to multiple user groups that share the same access requirements.

For this project, 2 profiles will be created:

* **Guest User**: This is for the Guest User account. Allows for read-only system administrator access.
* **Store User**: This is the main profile to be used for the manager and cashier positions.

### 4.2.3 Permission Sets

Permission sets add additional permissions on top of profiles. This allows fewer profiles for larger groups of employees with a shared basic set of access, with as many permission sets as needed for specific responsibilities.

For this project, only 1 permission set is required:

* **Manager**: This will allow the Manager users to add Fuel Entry records, and create and monitor reports.

## 4.3 Objects

Objects are equivalent to tables in a database, and contain the data used for business processes and reporting. Salesforce comes with some standard objects, and additional custom objects were created for this demonstration.

* **User:**  Standard object.
  + Contains information about each Salesforce user. A new field was added to this for the Store number each user is associated with. This field will be used in validation rules, see section [4.5](#_4.5_Validation_Rules) for details.
* **Store**: Custom object.
  + Contains the Love’s locations used for this project.
* **Competitor**: Custom object.
  + Contains information on the competitors selected for this project.
* **Store\_Competitor**: Custom object.
  + Associates each store with one or more competitors.
* **Fuel\_Entry**: Custom object.
  + Contains information on fuel prices. Each record is for either a store or competitor, and for a single date.
* **SC\_Fuel\_Entry**: Custom object.
  + Associates each Fuel\_Entry record with the Store\_Competitor record it applies to. This allows comparisons between each store, competitor(s), and fuel prices over a range of dates.

The relationship between the Salesforce objects are located on this flowchart [Love’s Demo - SFDC Object Mapping](https://github.com/mdwboyd/project-demos/blob/master/salesforce/loves-demo/Loves%20Demo%20-%20SFDC%20Object%20Mapping.pdf).

## 4.4 Apex

An Apex trigger will be created for this project, on the Fuel\_Entry object described in section [4.3](#_3.3_Objects). When a new Fuel\_Entry record is created, the following actions will occur:

* If the new record is marked as active
  + The current active row for that location, will be marked as inactive
  + Record will be added to the database
* If the new record is marked as inactive
  + Record will be added to the database

## 4.5 Validation Rules

Validation rules are used to verify a user’s actions are allowed, and if not, to display an error message and prevent the action.

For this project, 2 validation rules will be implemented on the Fuel\_Entry object.

* **Store\_or\_Competitor**: Only Store or Competitor can be populated on any given Fuel\_Entry record. Cannot have both fields contain data on the same record.
* **Own\_Store\_Only**: Allows a Manager to only add new Fuel\_Entry records to the same Store# as on their User account.

## 4.6 Reporting

Several reports are to be created for the sample historical data:

* Comparison of historical prices by location, compared to competitors, and by fiscal periods
* Display current prices by city

Salesforce reports and dashboards will be contained in the following folders:

* Demo Reports
* Demo Folders

# 5.0 Links

* [~~Salesforce Developer Org~~](https://lovesdemo-dev-ed.my.salesforce.com)
  + ~~Salesforce instance used for this project~~
* [Love's Demo - Development](https://github.com/mdwboyd/project-demos/blob/master/salesforce/loves-demo/Loves%20Demo%20-%20Development.xlsx)
  + Main project development documentation
* [Love's Demo - Sample Data](https://github.com/mdwboyd/project-demos/blob/master/salesforce/loves-demo/Loves%20Demo%20-%20Sample%20Data.xlsx)
  + Data used to populate the Salesforce custom objects
* [Love's Demo - SFDC Object Mapping](https://github.com/mdwboyd/project-demos/blob/master/salesforce/loves-demo/Loves%20Demo%20-%20SFDC%20Object%20Mapping.pdf)
  + Shows the relationship between the Salesforce custom objects
* [Store information example](https://www.loves.com/en/location-and-fuel-price-search/locationsearchresults#?state=OK&city=Oklahoma%20City&highway=I-40)
  + Records URL for search results on Loves.com for Store #203. Used to discover how Love’s documents and displays store information
* [Jobs information example - Store Team](https://jobs.loves.com/go/Store-Team/401319/)
* [Jobs information example - Store Leadership](https://jobs.loves.com/go/Store-Leadership/401317/)
  + Links to store job descriptions and titles. Used to develop user’s roles and permissions within the Salesforce instance