

# Implementation of Strategic Management Information System for Liv Student

National College of Ireland  
School of Computing  
M.Sc Data Analytics

## Team Details

Student Details	Student ID	Work Distribution
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## Note of Approval:

To whom it might concern,

-

### Approval letter

LIV Student organization is glad to give opportunity to Mr. Arth Vijaykumar Vyas for building salesforce platform for one of its operating sector called "LIV eatery", for improving the customer relationship management and improving business decision.

Required information to fulfil the project will be shared by us and we have no objection in sharing details for college project. Do not hesitate to contact me if you may have any question.

Kind regards,

**Kostas Tsamis**

General Manager

[www.livstudent.com](http://www.livstudent.com)

**LIV D u b l i n**

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### NOTICE:

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Project confirmation  
Mail.eml

**Link to mail:**

## **Background Information:**

LIV Student is an organisation which provide Accommodation for students. There are total three different department in LIV Student: Hotel Accommodation, Hostel Accommodation and LIV eatery. Basically, known for offering Accommodation and Food. The LIV eatery section again has three categories: Breakfast section, Bakery section and Take away section which is open for residing student and open for local crowd too.

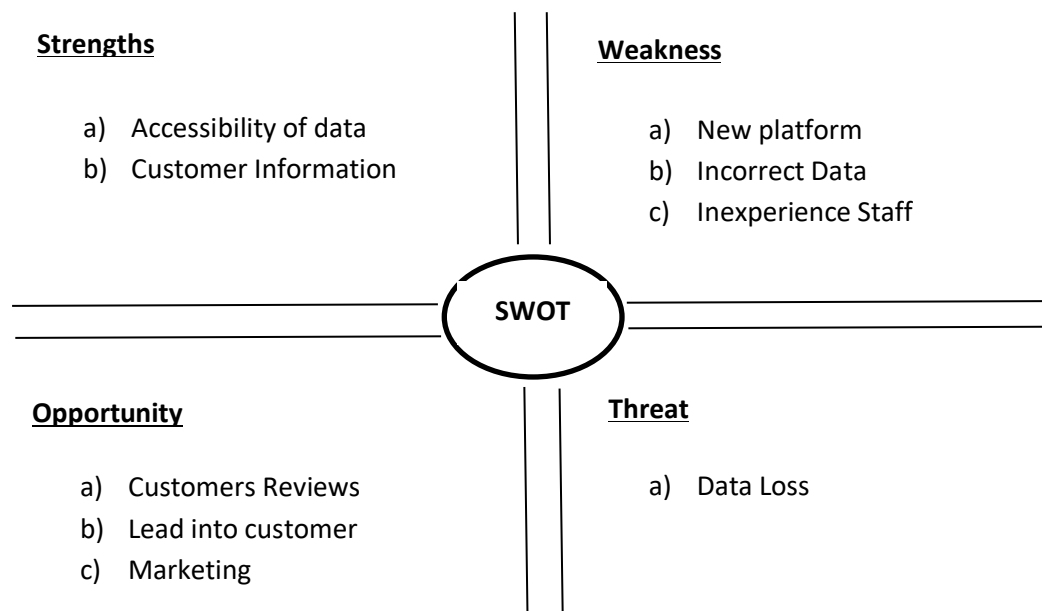
## **Marketplace and Scope:**

LIV Student is into the business of Accommodation and Food. They are new to in the market and most of the revenue is coming from accommodation. Now we are focusing on LIV eatery section because we are interested in uplifting the level of LIV eatery and returns from this section by analysing the product serve and customer demand as well as reviews. Which will help the owner/manager in better decision making for the section.

## **Infrastructure:**

The implementation of all the data will be done on cloud base platform, salesforce.

## **Benefits and Risks:**



### Sales process:

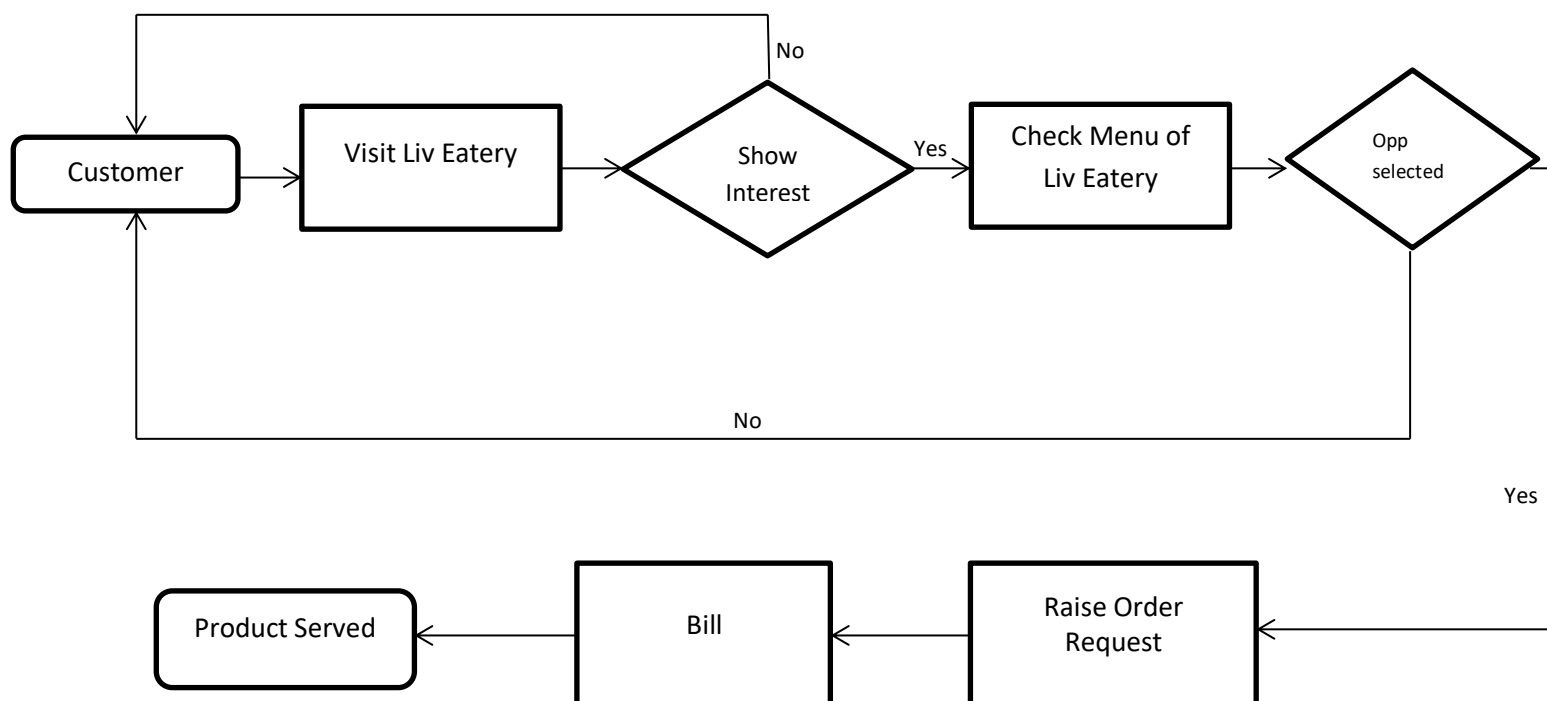
The sales process is following customer visit to LIV eatery have a glance on menu select the product from menu raise order will charge for product and product will be served.

All the data enter by manager or accountant in the salesforce will be used for preparing the dashboard for the owner to keep a track of his wish list like maximum sold product, customers reviews, monthly profit of section and so on. Further scope can be modified as per the requirement.

The customers who are visiting the LIV eatery section and not buying the product are considered as a lead in salesforce.

Opportunity will be all the items/product under breakfast, Bakery and Takeaway section sold in LIV eatery section.

### Flow Chart



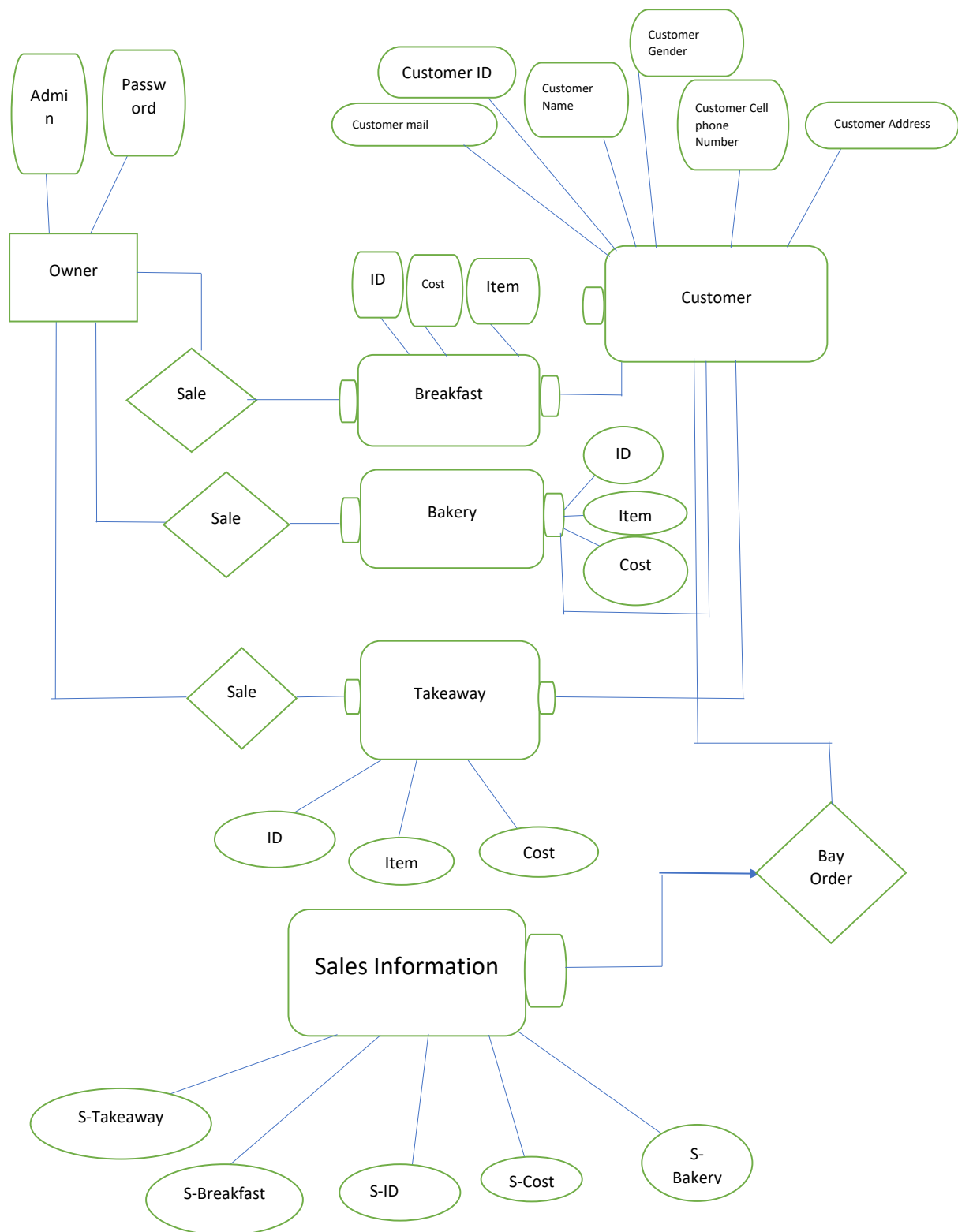
### **Dashboard content & Analytical Requirement:**

- Which Product is less sold?
- Which Product sold maximum?
- Gender classification based on sales?
- Which university customer is buying?
- Review from customers for different product to be added.

### **Entity Relation:**

- Customers
- Breakfast
- Bakery
- Take Away
- Sales Information
- Owner

## Entity Relationship diagram:

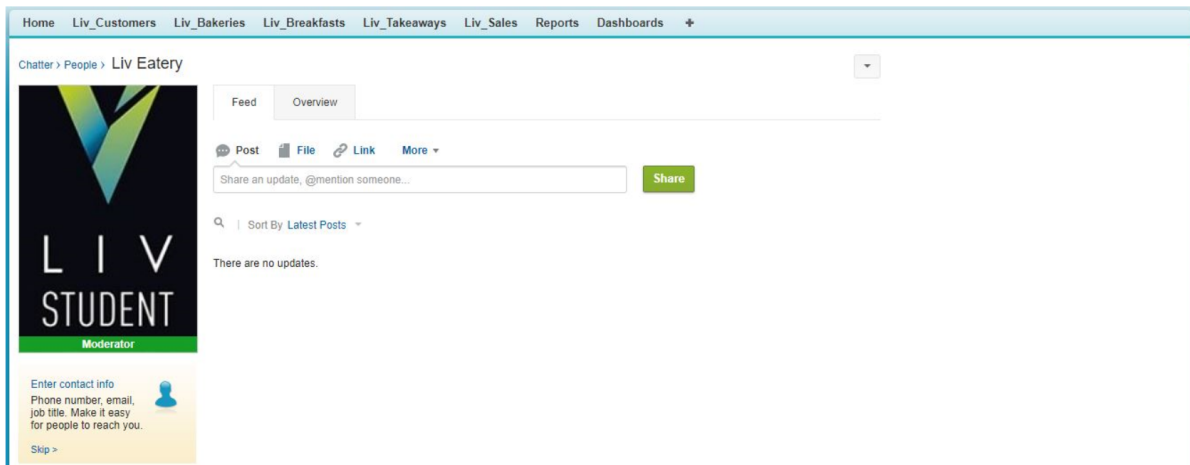


### **Data types of all the attributes of entities:**

Entity	Attributes	Data Type
Sales	S_Takeaway	Auto
	S_Breakfast	Auto
	S_ID	Auto
	S_cost	Int
	S_Bakery	Auto
Customer	CustomerID	Auto Number
	C_Address	Text Area
	C_CellPhone_Number	Phone
	C_Email	Email
	C_Gender	Pick list
	C_Name	Text
Breakfast	BreakfastID	Auto Number
	B_Item	Pick list
	B_Cost	Currency
Bakery	BakeryID	Auto Number
	Ba_Item	Pick list
	Ba_Cost	Pick list
Takeaway	TakeAwayID	Auto Number
	T_Item	Pick list
	T_Cost	Pick list

### **IMPLEMENTATION:**

Implementation of salesforce and creation of fields as well as the report and dashboard. A meeting was set up with LIV Student owner, where the expectation of owner regarding LIV eatery section were duly noted. Based on discussion we have gathered following details from them to kickstart the salesforce platform. In this phase we have taken the details of Sales for the month of November, the available details of customers and the rates of each product in their menu. Here we have created the basic salesforce platform as per requirement for them which will avoid loads of manual work for tracking their profit for LIV eatery section, this will give them organized and structure platform analyse the progress of particular section or product with loads of options available in Report and dashboard section. Below is the image of main application page for LIV student.



## CREATING OBJECT:

Once the company's profile is set-up as an application in salesforces, then comes the creation of object. Here the objects are customized, and the below image depicts the custom objects. The five different objects have been created for building a schema diagram. Each object will be given a common Object\_ID through which all the objects establish the relationship will be joined.

**Custom Objects**

Custom objects are database tables that allow you to store data specific to your organization in Salesforce. You can use custom objects to extend Salesforce functionality.

Once you have created a custom object, you can create a custom tab, custom related lists, reports, and dashboards for users to interact with the custom object data. You can also create custom object data through the API.

Action	Label	Master Object	Deployed	Description
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Customer</a>		✓	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Bakery</a>		✓	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Breakfast</a>		✓	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Sale_Info</a>		✓	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Takeaway</a>		✓	
	<b>Deleted Objects (4)</b>			

### a. **Liv Customer Details:**

The customer details gathered from LIV Student is entered in the LIV Customer object created to store Customer details. Here Customer name, age, gender, address and customer\_ID is created. All the required fields for analysing customer has been created and LIV Student can use this object further for making new entries for other customers. Below image shows the data of customer that visits Liv Eatery. The object fields of customer details are customised and defined to create a join with other objects for schema.

Custom Object  
**Lic\_Customer**

[Standard Fields \(4\)](#) | [Custom Fields & Relationships \(5\)](#) | [Validation Rules \(2\)](#) | [Page Layouts \(1\)](#) | [Field Sets \(2\)](#) | [Compact Layouts \(1\)](#) | [Search Layouts \(6\)](#) | [Buttons, Links, and Actions \(9\)](#) | [Record Types \(2\)](#) | [Apex Sharing Reasons \(2\)](#) | [Apex Sharing Recalculation \(2\)](#) | [Object Limits \(10\)](#)

[Help for this Page](#)

**Custom Object Definition Detail** [Edit](#) [Delete](#)

Singular Label	Lic_Customer	Description	
Plural Label	Liv_Customers	Enable Reports	<input checked="" type="checkbox"/>
Object Name	Lic_Customer	Track Activities	<input checked="" type="checkbox"/>
API Name	Lic_Customer__c	Allow in Chatter Groups	<input type="checkbox"/>
		Allow Sharing	<input checked="" type="checkbox"/>
		Allow Bulk API Access	<input checked="" type="checkbox"/>
		Allow Streaming API Access	<input checked="" type="checkbox"/>
		Track Field History	<input checked="" type="checkbox"/>
		Deployment Status	Deployed
		Allow Search	<input checked="" type="checkbox"/>
		Help Settings	Standard salesforce.com Help Window
Created By	Liv Eatery, 12/12/2018 13:08	Modified By	Liv Eatery, 12/12/2018 13:08

**Standard Fields** [Standard Fields Help](#)

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	Created By	CreatedBy	Lookup(User)			<input type="checkbox"/>
	Last Modified By	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Lic_Customer ID</a>	Name	Auto Number		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User,Queue)		<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Standard Fields** [Standard Fields Help](#)

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	Created By	CreatedBy	Lookup(User)			<input type="checkbox"/>
	Last Modified By	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Lic_Customer ID</a>	Name	Auto Number		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User,Queue)		<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Custom Fields & Relationships** [New](#) [Field Dependencies](#) [Set History Tracking](#) [Custom Fields & Relationships Help](#)

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Customer_Address</a>	Liv_Customer_Address__c	Text Area(255)			Liv Eatery, 12/12/2018 13:16	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Customer_Email</a>	Liv_Customer_Email__c	Email			Liv Eatery, 12/12/2018 13:15	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>   <a href="#">Replace</a>	<a href="#">Liv_Customer_Gender</a>	Liv_Customer_Gender__c	Picklist			Liv Eatery, 12/12/2018 13:14	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Customer_Ph_no</a>	Liv_Customer_Ph_no__c	Phone			Liv Eatery, 12/12/2018 13:15	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Cutomer_Name</a>	Liv_Cutomer_Name__c	Text(20)			Liv Eatery, 12/12/2018 13:13	<input type="checkbox"/>

## b. Liv Bakery Details:

All the product sold by LIV Student is gathered first, all the items catering in bakery section the field are created and information is fed into it. The image of LIV Bakery is attached below.

Custom Object  
**Liv\_Bakery**

[Standard Fields \(4\)](#) | [Custom Fields & Relationships \(2\)](#) | [Validation Rules \(1\)](#) | [Page Layouts \(1\)](#) | [Field Sets \(2\)](#) | [Compact Layouts \(1\)](#) | [Search Layouts \(6\)](#) | [Buttons, Links, and Actions \(9\)](#) | [Record Types \(2\)](#) | [Apex Sharing Reasons \(2\)](#) | [Apex Sharing Recalculation \(2\)](#) | [Object Limits \(10\)](#)

[Help for this Page](#)

**Custom Object Definition Detail** [Edit](#) [Delete](#)

Singular Label	Liv_Bakery	Description	
Plural Label	Liv_Bakeries	Enable Reports	<input checked="" type="checkbox"/>
Object Name	Liv_Bakery	Track Activities	<input checked="" type="checkbox"/>
API Name	Liv_Bakery__c	Allow in Chatter Groups	<input type="checkbox"/>
		Allow Sharing	<input checked="" type="checkbox"/>
		Allow Bulk API Access	<input checked="" type="checkbox"/>
		Allow Streaming API Access	<input checked="" type="checkbox"/>
		Track Field History	<input checked="" type="checkbox"/>
		Deployment Status	Deployed
		Allow Search	<input checked="" type="checkbox"/>
		Help Settings	Standard salesforce.com Help Window
Created By	Liv Eatery, 12/12/2018 13:09	Modified By	Liv Eatery, 12/12/2018 21:36



Standard Fields

Standard Fields Help ?

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	<a href="#">Created By</a>	CreatedBy	Lookup(User)			<input type="checkbox"/>
	<a href="#">Last Modified By</a>	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Liv Bakery ID</a>	Name	Auto Number		✓	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User,Queue)		✓	<input type="checkbox"/>

Custom Fields & Relationships

NewField DependenciesSet History TrackingCustom Fields & Relationships Help ?

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Bakery Cost</a>	Liv_Bakery_Cost__c	Currency(10, 2)			<a href="#">Liv Eatery</a> , 12/12/2018 13:17	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>   <a href="#">Replace</a>	<a href="#">Liv Bakery Item</a>	Liv_Bakery_Item__c	Picklist (Multi-Select)			<a href="#">Liv Eatery</a> , 12/12/2018 13:23	<input type="checkbox"/>

Related Lookup Filters

No related lookup filters defined.

Validation Rules

NewValidation Rules Help ?

Action	Rule Name	Error Location	Error Message	Active	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Item Cost</a>	Top of Page	Item Cost should not be equal to 0 and not less than 0	✓	<a href="#">Liv Eatery</a> , 13/12/2018 01:43

### c. Liv Breakfast:

Nine field were created for the items served by LIV student on breakfast menu. Below the image attached of the custom object.

Custom Object

Liv\_Breakfast

Help for this P:

[Standard Fields](#) (4) | 
 [Custom Fields & Relationships](#) (2) | 
 [Validation Rules](#) (1) | 
 [Page Layouts](#) (1) | 
 [Field Sets](#) (0) | 
 [Compact Layouts](#) (1) | 
 [Search Layouts](#) (0) | 
 [Buttons, Links, and Actions](#) (0) | 
 [Record Types](#) (0) | 
 [Apex Sharing Reasons](#) (0) | 
 [Apex Sharing Recalculation](#) (0) | 
 [Object Limits](#) (10)

#### Custom Object Definition Detail

[Edit](#)

[Delete](#)

Singular Label	Liv_Breakfast	Description	
Plural Label	Liv_Breakfasts	Enable Reports	✓
Object Name	Liv_Breakfast	Track Activities	✓
API Name	Liv_Breakfast__c	Allow in Chatter Groups	<input type="checkbox"/>
		Allow Sharing	✓
		Allow Bulk API Access	✓
		Allow Streaming API Access	✓
		Track Field History	✓
		Deployment Status	Deployed
		Allow Search	✓
		Help Settings	Standard salesforce.com Help Window

Standard Fields

Standard Fields Help ?

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	<a href="#">Created By</a>	CreatedBy	Lookup(User)			<input type="checkbox"/>
	<a href="#">Last Modified By</a>	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Liv Breakfast ID</a>	Name	Auto Number		✓	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User,Queue)		✓	<input type="checkbox"/>

Custom Fields & Relationships

NewField DependenciesSet History TrackingCustom Fields & Relationships Help ?

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Breakfast Cost</a>	Liv_Breakfast_Cost__c	Currency(10, 2)			<a href="#">Liv Eatery</a> , 12/12/2018 15:11	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>   <a href="#">Replace</a>	<a href="#">Liv Breakfast Item</a>	Liv_Breakfast_Item__c	Picklist (Multi-Select)			<a href="#">Liv Eatery</a> , 12/12/2018 13:30	<input type="checkbox"/>

Related Lookup Filters

No related lookup filters defined.

Validation Rules

NewValidation Rules Help ?

Action	Rule Name	Error Location	Error Message	Active	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">br Item Cost</a>	Top of Page	Breakfast Item cost should not be less than zero and not equal to zero	✓	<a href="#">Liv Eatery</a> , 13/12/2018 01:44

d. **Liv Takeaway Details:**

Normally the menu for takeaway is on rotation but the menu kept for majority time is kept in the object of Liv Takeaway. Below image shows the details of the takeaway done by the customers in the Eatery.

Custom Object **Liv\_Takeaway** [Help for this Page](#)

[Standard Fields](#) (4) | [Custom Fields & Relationships](#) (2) | [Validation Rules](#) (1) | [Page Layouts](#) (1) | [Field Sets](#) (0) | [Compact Layouts](#) (1) | [Search Layouts](#) (0) | [Buttons, Links, and Actions](#) (0) | [Record Types](#) (0) | [Apex Sharing Reasons](#) (0) | [Apex Sharing Recalculation](#) (0) | [Object Limits](#) (10)

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**Custom Object Definition Detail** [Edit](#) [Delete](#)

Singular Label	Liv_Takeaway	Description	
Plural Label	Liv_Takeaways	Enable Reports	<input checked="" type="checkbox"/>
Object Name	Liv_Takeaway	Track Activities	<input checked="" type="checkbox"/>
API Name	Liv_Takeaway__c	Allow in Chatter Groups	<input type="checkbox"/>
		Allow Sharing	<input checked="" type="checkbox"/>
		Allow Bulk API Access	<input checked="" type="checkbox"/>
		Allow Streaming API Access	<input checked="" type="checkbox"/>
		Track Field History	<input checked="" type="checkbox"/>
		Deployment Status	Deployed
		Allow Search	<input checked="" type="checkbox"/>
		Help Settings	Standard salesforce.com Help Window
Created By	<a href="#">Liv Eatery</a> , 12/12/2018 13:11	Modified By	<a href="#">Liv Eatery</a> , 12/12/2018 13:11

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**Standard Fields** [Standard Fields Help](#)

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	<a href="#">Created By</a>	CreatedBy	Lookup(User)			<input type="checkbox"/>
	<a href="#">Last Modified By</a>	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Liv_Takeaway_ID</a>	Name	Auto Number		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User,Queue)		<input checked="" type="checkbox"/>	<input type="checkbox"/>

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**Custom Fields & Relationships** [New](#) [Field Dependencies](#) [Set History Tracking](#) [Custom Fields & Relationships Help](#)

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv_Takeaway_Cost</a>	Liv_Takeaway_Cost__c	Currency(10, 2)			<a href="#">Liv Eatery</a> , 12/12/2018 13:32	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>   <a href="#">Replace</a>	<a href="#">Liv_Takeaway_Item</a>	Liv_Takeaway_Item__c	Picklist (Multi-Select)			<a href="#">Liv Eatery</a> , 12/12/2018 13:36	<input type="checkbox"/>

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**Related Lookup Filters**

No related lookup filters defined.

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**Validation Rules** [New](#) [Validation Rules Help](#)

Action	Rule Name	Error Location	Error Message	Active	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Takeaway_Cost</a>	Top of Page	Takeaway product cost should not be less than zero and equal to zero	<input checked="" type="checkbox"/>	<a href="#">Liv Eatery</a> , 12/12/2018 21:45

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**Triggers** [New](#) [Triggers Help](#)

No triggers defined

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**Page Layouts** [New](#) [Page Layout Assignment](#) [Page Layouts Help](#)

Action	Page Layout Name	Created By	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	Liv_Takeaway Layout	<a href="#">Liv Eatery</a> , 12/12/2018 13:11	<a href="#">Liv Eatery</a> , 12/12/2018 13:42

e. **Liv Sales Details:**

Meta data for the month of November of all the sales happened for each product is entered in custom object. The sales object is further used to join all the objects for building schema. Below picture shows the sales and the profit margin of the eatery.

Custom Object  
**Liv\_Sale\_Info**

[Standard Fields \(4\)](#) | [Custom Fields & Relationships \(5\)](#) | [Validation Rules \(1\)](#) | [Page Layouts \(1\)](#) | [Field Sets \(2\)](#) | [Compact Layouts \(1\)](#) | [Search Layouts \(6\)](#) | [Buttons, Links, and Actions \(8\)](#) | [Record Types \(2\)](#) | [Apex Sharing Reasons \(2\)](#) | [Apex Sharing Recalculation \(2\)](#) | [Object Limits \(19\)](#)

[Help for this Page](#)

**Custom Object Definition Detail** [Edit](#) [Delete](#)

Singular Label	Plural Label	Object Name	API Name	Description
Liv_Sale_Info	Liv_Sales	Liv_Sales	Liv_Sales__c	
				Enable Reports <input checked="" type="checkbox"/>
				Track Activities <input checked="" type="checkbox"/>
				Allow in Chatter Groups <input type="checkbox"/>
				Allow Sharing <input checked="" type="checkbox"/>
				Allow Bulk API Access <input checked="" type="checkbox"/>
				Allow Streaming API Access <input checked="" type="checkbox"/>
				Track Field History <input checked="" type="checkbox"/>
				Deployment Status <input checked="" type="checkbox"/> Deployed
				Allow Search <input checked="" type="checkbox"/>
				Help Settings <input checked="" type="checkbox"/> Standard salesforce.com Help Window

Created By [Liv Eatery](#), 12/12/2018 13:38

Modified By [Liv Eatery](#), 12/12/2018 13:38

**Standard Fields** [Standard Fields Help](#)

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed	Track History
	Created By	CreatedBy	Lookup(User)			<input type="checkbox"/>
	Last Modified By	LastModifiedBy	Lookup(User)			<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Liv Sale ID</a>	Name	Auto Number		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">Edit</a>	<a href="#">Owner</a>	Owner	Lookup(User.Queue)		<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Custom Fields & Relationships** [New](#) [Field Dependencies](#) [Set History Tracking](#) [Custom Fields & Relationships Help](#)

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Lic Customer ID</a>	Lic_Customer_ID__c	Lookup(Lic_Customer)	<input checked="" type="checkbox"/>		<a href="#">Liv Eatery</a> , 12/12/2018 13:40	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Bakery ID</a>	Liv_Bakery_ID__c	Lookup(Liv_Bakery)	<input checked="" type="checkbox"/>		<a href="#">Liv Eatery</a> , 12/12/2018 13:41	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Breakfast ID</a>	Liv_Breakfast_ID__c	Lookup(Liv_Breakfast)	<input checked="" type="checkbox"/>		<a href="#">Liv Eatery</a> , 12/12/2018 13:41	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Sale Cost</a>	Liv_Sale_Cost__c	Currency(10, 2)			<a href="#">Liv Eatery</a> , 12/12/2018 14:41	<input type="checkbox"/>
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Liv Takeaway ID</a>	Liv_Takeaway_ID__c	Lookup(Liv_Takeaway)	<input checked="" type="checkbox"/>		<a href="#">Liv Eatery</a> , 12/12/2018 13:42	<input type="checkbox"/>

**Related Lookup Filters**

No related lookup filters defined.

**Validation Rules** [New](#) [Validation Rules Help](#)

Action	Rule Name	Error Location	Error Message	Active	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Sale Value</a>	Top of Page	Sale value should not be less than zero or equal to zero	<input checked="" type="checkbox"/>	<a href="#">Liv Eatery</a> , 13/12/2018 01:41

## Validation Rule for LIV Eatery Section:

The selling price of product is very important for both organisation and from salesforce perspective. The validation rule for LIV eatery is made in such a way that, selling price of any product should not be less than 0 Euro or 0. If it is the case the validation rule will not accept the value and throw the error. This will prevent wrong entry or any breach in organisation regarding price. Below is the command written for validation rule is attached and we have tried to enter 0 Euro entry into validation rule and see if accept the value or not. The error generated while entering wrong value is shown below.

[Liv Bakery Edit](#)

[Save](#) [Save & New](#) [Cancel](#)

**Error: Invalid Data.**  
Review all error messages below to correct your data.

**Information**

Liv_Bakery_Cost	-10.00	Owner	Liv Eatery
Liv_Bakery_Item	<div>Available</div> <ul style="list-style-type: none"> <li>Butter Croissant</li> <li>Cake of The Week</li> <li>Cappuccino</li> </ul>	<div>Chosen</div> <ul style="list-style-type: none"> <li>Americano</li> </ul>	

[Save](#) [Save & New](#) [Cancel](#)

## Liv\_Bakery Validation Rule

[Back to Liv\\_Bakery](#)

### Validation Rule Detail

Edit

Clone

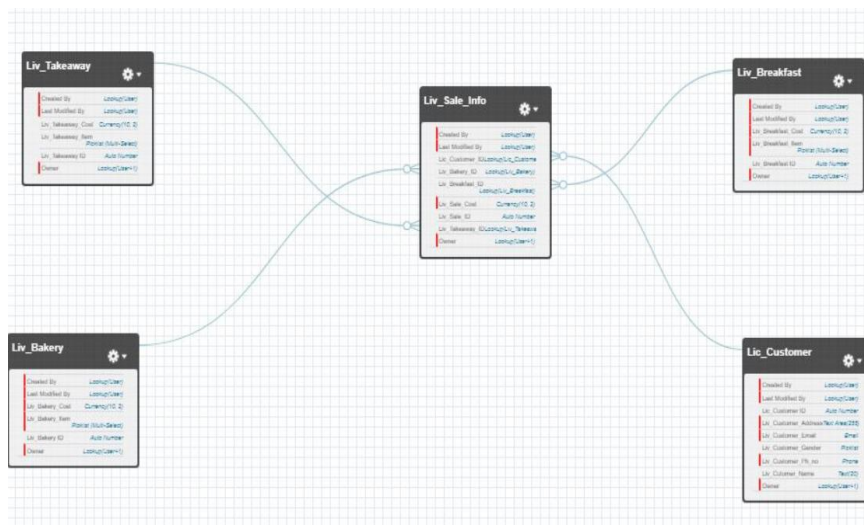
Rule Name	Item_Cost	Active	✓
Error Condition Formula	Liv_Bakery_Cost__c = 0 && Liv_Bakery_Cost__c < 0		
Error Message	Item Cost should not be equal to 0 and not less than 0	Error Location	Top of Page
Description			
Created By	<a href="#">Liv Eatery</a> , 12/12/2018 21:38	Modified By	<a href="#">Liv Eatery</a> , 13/12/2018 01:43

Edit

Clone

## OBJECT SCHEMA:

After the objects are customised, there is common Object\_ID given to each object and all the measure are captured in Sales Object. All the information available for LIV student will be join together with the IDs. Whenever the requirement of selection of fields for report or dashboard occurs will be fetch from here. All the object fields like Liv Customer, Liv Bakery, Liv Takeaway, Liv sales information and Liv Breakfast are customised and added to build the schema. Below image is the schema diagram build for salesforce.



## Visualforce Page:

Salesforce delivers the systematic way between the employees and the customers in an organization by providing communication and alliance among them. To get the full control over the behaviour and look of the login page, we need to create login page using Apex code and visual force. We can easily customize and edit these pages and apex controllers. Below is

the created Visualforce login page of the Liv Eatery which shows the visual force login page code.

The screenshot displays the Salesforce Visualforce Page editor interface. At the top, the page is titled 'Visualforce Page Login' with a 'Help for this Page' link. Below the title, there are action buttons: 'Edit', 'Delete', 'Clone', 'Where is this used?', 'Show Dependencies', and 'Preview'. The 'Page Detail' tab is active, showing a table with the following information:

Label	Name
Login	Login

Below the table, there are several settings:

- Namespace Prefix:** (empty)
- Available for Lightning Experience, Lightning Communities, and the mobile app:** ☐
- Require CSRF protection on GET requests:** ☐
- Description:** (empty)
- Created By:** Liv Eatery, 13/12/2018 00:21
- Last Modified By:** Liv Eatery, 13/12/2018 01:55

The 'Visualforce Markup' tab is also visible, showing the following code:

```
<apex:page showHeader="false" sidebar="false" id="apage" controller="LoginPages">
  <style>
    .myFormStyle {
      background-color:Orange;
    }
  </style>
  <apex:form styleClass="myFormStyle" id="loginForm">
    <p style="font-size:50px"><b>LIV Eatery Login Page</b><br /></P>

    <p><b>User Name</b><br />
    <apex:inputText id="username" value="{!username}"/></p>
    <p><b>Password</b><br />
    <apex:inputText id="password" value="{!password}"/></p>

    <apex:commandButton id="loginButton" action="{!LoginUser}" value="Login"/>
  </apex:form>
</apex:page>
```

## Login Page:

After creating the visual force page, we create the login page of the organization Liv Eatery which consist of "User Name", "Password" and a "login button" of the Liv Eatery.

As shown in below image



# LIV Eatery Login Page

User Name

Password

Login

## Apex Class Login Page:

The apex class code has been written for login page here the rule is set that if the credential are correct the user will land on customer page.

Apex Class **LoginPages** [Help for this Page](#)

[Back to List Apex Classes](#)

**Apex Class Detail** [Edit](#) [Delete](#) [Download](#) [Security](#) [Show Dependencies](#)

Name	Status
LoginPages	Active

Namespace Prefix	Code Coverage
Created By <a href="#">Liv Eatery</a> , 13/12/2018 00:29	0% (0/8)
Last Modified By <a href="#">Liv Eatery</a> , 13/12/2018 02:09	

[Class Body](#) [Class Summary](#) [Version Settings](#) [Trace Flags](#)

```
1 public class LoginPages {
2
3     public String password { get; set; }
4     public String username { get; set; }
5
6     public PageReference LoginUser() {
7         PageReference retUri=page.Login;
8         if(username=='admin' && password=='admin')
9         {
10             retUri = page.Customer;
11         }
12         else{
13             retUri = page.Invalid;
14         }
15         return retUri;
16     }
17 }
18 }
```

## Invalid Login:

User need to fill correct user name, password and then click the login button to access the Liv Eatery. If the user from the Liv Eatery didn't fill the correct username or the password then in this case screen shows "Invalid Credentials" as shown as in below figure.

# Invalid Credentials

## Please Enter Correct Login Details

User Name

admin

Password

skfhskfj

Login

After passing the credential successfully at login page. The first page on which the user will be land on will customer data page. Below is the image attached of the customer detail page.

Customer Details	
Liv_Customer_Name	<input type="text"/>
Liv_Customer_Ph_no	<input type="text"/>
Liv_Customer_Gender	Male ▾
Liv_Customer_Email	<input type="text"/>
Liv_Customer_Address	<input type="text"/>
<input type="button" value="Submit"/>	

Here we can enter the new customer details by appointed person who he going to enter the details in salesforce further on. The file of gender here is kept as picklist. Once the customer details are entered the user will be able to land on page where user can add the product details ordered by customer.

The query for customer page at visual force is shown below with all the mandatory fields to be add and rules set for each field.

Visualforce Page
Customer
Help for this Page

Page Detail
Edit Delete Clone Where is this used? Show Dependencies Preview

Label	Customer	Name	Customer
Namespace Prefix		Available for Lightning Experience, Lightning Communities, and the mobile app	<input type="checkbox"/>
Require CSRF protection on GET requests	<input type="checkbox"/>	Description	
		Created By	Liv Eatery 13/12/2018 00:29
Last Modified By	Liv Eatery 13/12/2018 00:52		

Visualforce Markup
Version Settings

```

<apex:page StandardController="Lic_Customer__c" showHeader="False">
<apex:form >
<apex:pageBlock >
<apex:pageBlockSection title="Customer Details">
<apex:inputField value="{!Lic_Customer__c.Liv_Customer_Name__c}" style="width:300px;height:20px;" Required="True"/>
<apex:inputField value="{!Lic_Customer__c.Liv_Customer_Pn_no__c}" style="width:300px;height:20px;" Required="True"/>
<apex:inputField value="{!Lic_Customer__c.Liv_Customer_Gender__c}" style="width:300px;height:20px;" Required="True"/>
<apex:inputField value="{!Lic_Customer__c.Liv_Customer_Email__c}" style="width:300px;height:20px;" Required="True"/>
<apex:inputField value="{!Lic_Customer__c.Liv_Customer_Address__c}" style="width:300px;height:20px;" Required="True"/>
</apex:pageBlockSection>
<div align="center">
<apex:commandButton value=" Submit " action="{!save}"/>
</div>
</apex:pageBlock>
</apex:form>
</apex:page>

```

Edit Delete Clone Where is this used? Show Dependencies Preview

## Report:

A list of records that encounters the standard you define in simple words is known as a report. Salesforce gives the facility to make custom report types. by selecting the report type we can make the report. To make custom report type, we first use setup within the salesforce. With the help of custom report type, user create report from the object relationships, predefined objects and specified field. The image below clearly shows custom report types of the organization Liv Eatery which consist of the customers data, sales and takeaway.

## All Custom Report Types

Help for this Page

With custom report types, you can enable users to create reports from the predefined objects, object relationships, and fields that you specify.

View: All Custom Report Types Edit Create New View

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

New Custom Report Type						
Action	Label ↑	Description	Category	Deployed	Created By Alias	Created Date
<a href="#">Edit</a> <a href="#">Del</a>	<a href="#">Customers</a>	Customers Data	Other Reports	<input type="checkbox"/>	<a href="#">LEate</a>	12/12/2018
<a href="#">Edit</a> <a href="#">Del</a>	<a href="#">Liv Sales and Takeaway</a>	Sales and Customers	Other Reports	<input type="checkbox"/>	<a href="#">LEate</a>	12/12/2018
<a href="#">Edit</a> <a href="#">Del</a>	<a href="#">Sales and Breakfast</a>	breakfast and sales	Other Reports	<input type="checkbox"/>	<a href="#">LEate</a>	12/12/2018



Below is the information for Customers custom report type of Liv Eatery. In this there is an option to click the button to update or view this custom report type and also it shows the object relationship between the Liv\_Customers and Liv\_Sales.

Custom Report Type  
**Customers** Help for this Page ?

[« Back to List: Custom Report Types](#)

Below is the information for this custom report type. You can click the buttons on this page to preview or update information for the custom report type.

**Custom Report Type Definition** Edit Delete Clone

Report Type Label	Customers	Report Type Category	Other Reports
Report Type Name	Customers	Deployment Status	In Development
Description	Customers Data		
Created By	Liv Eatery, 12/12/2018 17:36	Modified By	Liv Eatery, 12/12/2018 20:21

**Object Relationships** Edit Object Relationships Help ?

**Liv\_Customers (A)**  
 with at least one related record from **Liv\_Sales (B)**

For Creating a new report, first go to the Report tab then click new report, after that select the report type and click to create then later on customize the report then run it as shown in below image.

## Create New Report

☐ Select Report Types to Hide 1

Select Report Type

Quick Find

- Accounts & Contacts
- Opportunities
- Customer Support Reports
- Leads
- Campaigns
- Activities
- Contracts and Orders
- Price Books, Products and Assets
- Administrative Reports
- File and Content Reports
- Other Reports
  - Liv\_Customers
  - Liv\_Customer History
  - Liv\_Bakeries
  - Liv\_Bakery History
  - Liv\_Breakfasts
  - Liv\_Breakfast History

**Preview**

**Account Report**

Account	Owner	Account Name	Account Site
Joe Johnson	Acme, Inc	Headquarters	
Shelly Smith	Genwatt, Inc	Headquarters	
Tom Thompson	Gene Points	Headquarters	

Below is the information related to the custom report type customers which consist of the customer regions and amount of sales Liv\_customer\_address, liv\_customer\_name, record counts.

Report Type: Customers  
Customer Regions with Amount of Sales

Save Save As Close Report Properties Add Report Type Run Report

Fields All #

Quick Find

Drag and drop to add fields to the report.

Formulas Add Formula

Bucket Fields Add Bucket Field

Liv\_Customers

- Created By: Full Name
- Created Date
- Last Activity Date
- Last Modified By: Full Name
- Last Modified Date
- Liv\_Customer ID
- Liv\_Customer\_Address
- Liv\_Customer\_Email
- Liv\_Customer\_Gender
- Liv\_Customer\_Ph\_no
- Liv\_Customer\_Name
- Owner: Full Name

Liv\_Sales

- Created By: Full Name
- Created Date
- Last Activity Date
- Last Modified By: Full Name

Filters Add

Show My liv\_customers

Date Field Created Date Range Current FQ From 01/10/2018 To 31/12/2018

To add filters, click Add.

Preview Matrix Format Show Remove All Columns

		Drop a field here to create a column grouping.	Grand Total
Liv_Customer_Address	Liv_Customer_Name	Drop summarizable fields into the matrix.	
CENTRE OF ENGLISH STUDIES	Miss Constance BOURG	Sum of Liv_Sale_Cost Record Count	€2.80 1
		Liv_Sale_Cost Record Count	€2.80 1
	Subtotal	Sum of Liv_Sale_Cost Record Count	€2.80 1
DIT	Miss Rebecca McNutt	Sum of Liv_Sale_Cost Record Count	€12.75 1
		Liv_Sale_Cost Record Count	€12.75 1
	Subtotal	Sum of Liv_Sale_Cost Record Count	€12.75 1
Dublin business school	Mr Louis Pannebiau	Sum of Liv_Sale_Cost Record Count	€12.50 1

## Dashboard Result:

The visual display of records and key metrics in an organization is known as dashboard. On a layout of single dashboard page, multiple dashboard components can be displayed together. Reports which are made with the help of daily cases, visual report or the visualization report is created with the help of dashboard. We have used matrix report type where user can use drill down option with required time frame. One can select desired report from the drill down provided at dashboard. Another unique feature added in the dashboard is by clicking on each section presented in report on dashboard user can view the overall details of that particular product. Both are shown in below image attached for reference.

## Customer sales for Bakery products

Report Generation Status: Complete

Report Options:

Summarize information by: Liv\_Sale\_Info: Liv\_Sale\_ID  
 Summarize information by: Lic\_Customer\_ID  
 Show: My liv\_sales

Time Frame  
 Date Field: Liv\_Sale\_Info: Created Date  
 Range: Custom  
 From:  To:

Run Report Hide Details Customize Save Save As Delete Printable View Export Details Subscribe

Filtered By: Edit  
 Liv\_Bakery\_ID: Liv\_Bakery ID equals Liv\_Bkry-0003 Clear

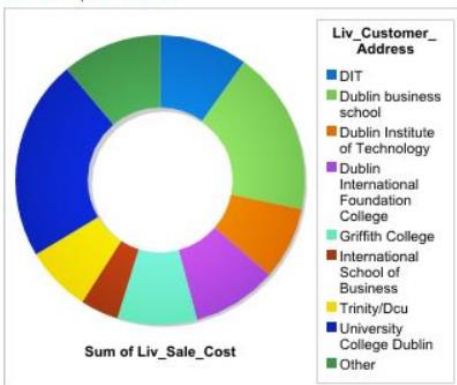
Sum of Liv_Sale_Cost		Lic_Customer_ID				Grand Total
Liv_Sale_Info: Liv_Sale_ID	Liv_Bakery_ID: Liv_Bakery ID	Liv-0003	Liv-0017	Liv-0021	Liv-0029	
<input type="checkbox"/> Liv S-0003	Liv Bkry-0003	€2.80	€0.00	€0.00	€0.00	€2.80
	Subtotal	€2.80	€0.00	€0.00	€0.00	€2.80
<input type="checkbox"/> Liv S-0014	Liv Bkry-0003	€0.00	€0.00	€0.00	€9.50	€9.50
	Subtotal	€0.00	€0.00	€0.00	€9.50	€9.50
<input type="checkbox"/> Liv S-0022	Liv Bkry-0003	€0.00	€0.00	€11.50	€0.00	€11.50
	Subtotal	€0.00	€0.00	€11.50	€0.00	€11.50
<input type="checkbox"/> Liv S-0028	Liv Bkry-0003	€0.00	€12.50	€0.00	€0.00	€12.50
	Subtotal	€0.00	€12.50	€0.00	€0.00	€12.50
Grand Total		€2.80	€12.50	€11.50	€9.50	€36.30

Filters Add  
 Show: My liv\_customers  
 Date Field: Created Date Range: Current FQ From: 01/10/2018 To: 31/12/2018  
 To add filters, click Add.

Preview Matrix Format Show Remove All Columns  
 Record Count 20

This preview shows a limited number of records. Run the report to see all results.

Edit Chart | Delete Chart



The following five reports made for dashboard is presented and explained below:

### (i) Takeaway item sales

This section gives an insight on the sales of the different items with different cost ordered as take away. As can be seen from graphical representation, it is unevenly distributed across different items. Sales of items such as wraps, peanuts and squashed potatoes are preferred and ordered as takeaway while others are not so popular. Using these details, we can find out the reason for low sale of items and improve its quality and quantity to boost its sale.

(ii) Percentage sales share across different addresses

The above graphical representation provides us with the details of students and their respective institutions who prefer to eat at LIV eatery. University college Dublin and Dublin business school have the highest share compared to other institutions.

We can infer from the details where students prefer to eat. We can also conduct a survey on the eating preferences of students to increase the sales numbers.

(iii) Total Amount of bakery items sales.

This graph provides us with the total sales of every items listed under bakery category. Each and every bakery item has been assigned a unique ID.

As can be seen from the representation, the sale of bakery item ID - Liv\_Bkry-0003 is almost three times the second item and is the most popular amongst all.

Also, the sales of item Liv\_Bkry-0004, Liv\_Bkry-0006 and Liv\_Bkry-0007 is the lowest.

With these details, we can implement new strategies or put up attractive offers to boost the sales of this items.

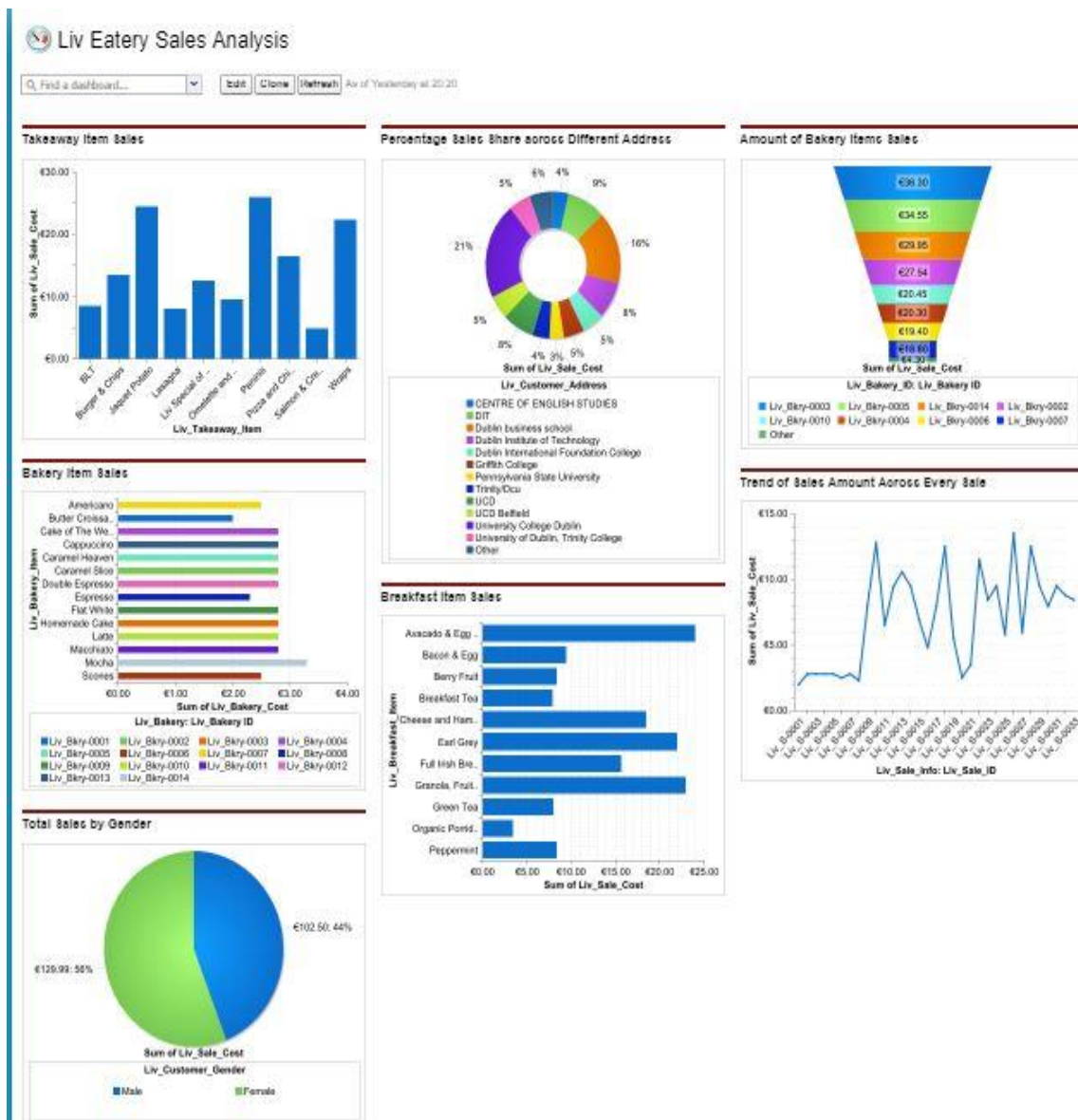
(iv) Breakfast items sale

This section provides details of sale of all the items listed under Breakfast section.

The sale of Avocado and egg is the highest followed by Granola fruit and Carl gray.

(v) Total sales by gender

This section provides us with the details of sales of different items in a whole based on the gender. As it can be seen clearly that the orders by female is significantly more compared to males. With this information, we can introduce exciting offers, combo deals or discounted deals on certain days to increase the sales preferably on male side and also on its counterpart.



## Future Scope:

LIV Student is aiming to build salesforce platform for monitoring the profit trend and product popularity. Once they will get their hands on this platform made for LIV Eatery. Later they wish to include the fields of employees hired by them to set the personal target to each of them which will be a great convince provided by this platform to owner. Apart from this they wish to build additional platform for the accommodation section and for targeting the competitors in this field which will help them to prioritised in launching new products and will get fair enough idea for profit margin to be kept or expect. They have another two branches in United Kingdom and United States later on this platform will be made according to the requirement of the owner.

**Conclusion:**

Salesforce is very helpful platform in boosting the business also help in building a good relation with the costumers. For Liv Eatery, salesforce is a best choice to analysis the product based on sale, help in generating more revenue and also help in increase in the profit. By Using the dashboard in the salesforce, we can easily understand in which section we need to improve for the betterment of the future.