Information System Architecture Design 32531

Assessment Task 2

In-Depth Analysis & Prototype development

TOPIC: CRM For Online Book Store

Submitted By:

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Executive Summary

In this report for CRM we will discuss about the strategies that are useful for online bookstore. Then we will discuss about five of the journals from different personalities. In which we have to discuss about the relationship capabilities and the relationship links. Then we will discuss about how internet is changing the way of purchasing books. We will also ponder upon the point and discuss about the way for buying the book whether it is for reading purpose or for gift. So, accordingly we will arrive to a particular result that will either support the point that the customer relationship management is totally helpful in integrating the customer whether it is a small firm or a big firm or will deduce that CRM does not play a significant role in the establishment of any E-commerce industry, let it be an online book store.

Customer relationship management strategies are creating so much profit for the company as they are continuously interacting with their customers. By sending electronic mails and other surveys we can take the feedback from our consumers or customers. These points will also be discussed in the report. The prototype for an online book store will also be made.

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Introduction

CRM is termed as “Customer Relationship Management”. CRM is very important for starting any business model very efficiently whether it is online bookstore. By using customer relationship management, we can make strategies for developing an online bookstore. So, when we are making customer relationship management strategy, we have to focus on the needs of our clients or customers to make sure to complete their needs for books etc. Customer relationship management strategy will help to make a regular customer base for the increment in sales of the books and other products in the store, so they can increase their profits. Also, by using customer relationship management software, mails and using social platforms to provide the information to the customer so that they can at least visit or view the online store.

This way CRM is promoting the Online Bookstore. By promoting online, we can have more customers. So, more customers will give more profit. CRM using social platforms is also helping us to spread more information about online bookstore as compare to the normal ways, in other words CRM is also advertising about the bookstore online. Online we can reach globally customers so that they can also buy our products and this way we can have global customers.

Customer Relationship Management will help in creating surveys to get more information about the customer’s supplies and needs. Also, customers can provide their feedback about their experience of purchasing the product. These types of surveys should be display on the store’s website or on their social media page so that the customers can see the reality.

There is some customer relationship management software which can be used to manage the list of clients E-mails and other personal data that they insert during purchase. This software can keep an eye on success or failures of marketing campaigns of the company.

Customer relationship management helps in reviewing the whole business plan and also CRM can give time to time statements for the monthly income. This will help in calculating the monthly expenses for the store.

Customer relationship management helps both the type of companies or firms whether it is a small firm or big firm it helps to interact with the customers and building the company for future so that it can run with a good base in future.

In-Depth Topic Analysis

1). Do consumers judge a book by its cover? A study of the factors that influence the purchasing of books

Luís Leitão, Suzanne Amaro, Carla Henriques, Paula Fonseca are examining the factors which are influencing the customers, when they are buying fictional books and exploring that is there any difference between buying the books for personal use or as a gift. Aim of their study id to finding out the factors that are affecting the purchasing of books. In this study they discussed about Four attributes while purchasing the book and they are as follows- “Recommending the books for family and colleagues”, “Topics that are going to be covered in the book”, “Synopsis”, “Showing the available discount on the books for sale” so they are totally focusing on the factors like ‘synopsis’, ‘topics covered in book’ while purchasing a book. So, focusing on the subject of book, authors can also conduct a research for discovering/searching which topic or subject is more trending and also appreciable by the readers. In this study, they also focus on the recommendation of the book to the family, friends and relatives. This process of recommendation plays a very important role in the purchase of a book. Recommending is the new and totally different way to promote books. So, talking and sharing about book is helpful in purchasing a book. Social media platforms like Facebook, Instagram are very useful in promoting the books.

Table 1
Demographic profile of respondents (N = 487).

		N	%
Gender	Female	339	69.6%
	Male	148	30.4%
Educational Level	Primary 1st, 2nd and 3rd cycle (grades 1–9)	7	1.4%
	Secondary Education (grades 10–12)	111	22.8%
	Bachelor's Degree	203	41.7%
	Post Graduate Degree	47	9.7%
	Master's Degree	72	14.8%
	Doctorate	47	9.7%
Age	[18–30]	167	34.3%
	[31–45]	224	46.0%
	45 +	96	19.7%

Figure 1: Demographic Profile of Respondents

In above figure, it is showing the demographic profile of respondents in which N is equal to 487. In which female are 339 and males are 148. Regarding educational level there are some figures in percentages also. So, we can see that there is a lot of majority by the students of bachelor's degree which is 41.7 %.

2). A multi-layered approach to CRM implementation: An integration perspective

David J. Finnegan *, Wendy L. Currie talks about the growth of E-commerce industry by using internet. In today's world CRM is uniting or integrating the customers. We here in this article studied about the CRM strategies by developing the strength and skills of people as a component. Here we introduced to the term 'Affordance' in CRM strategy. We can understand the term affordance as an analytical tool to analyze or to understand about the quality of products/elements. We discuss here about multi-layered framework in which we talk about developing CRM strategies form various dimension perspective.

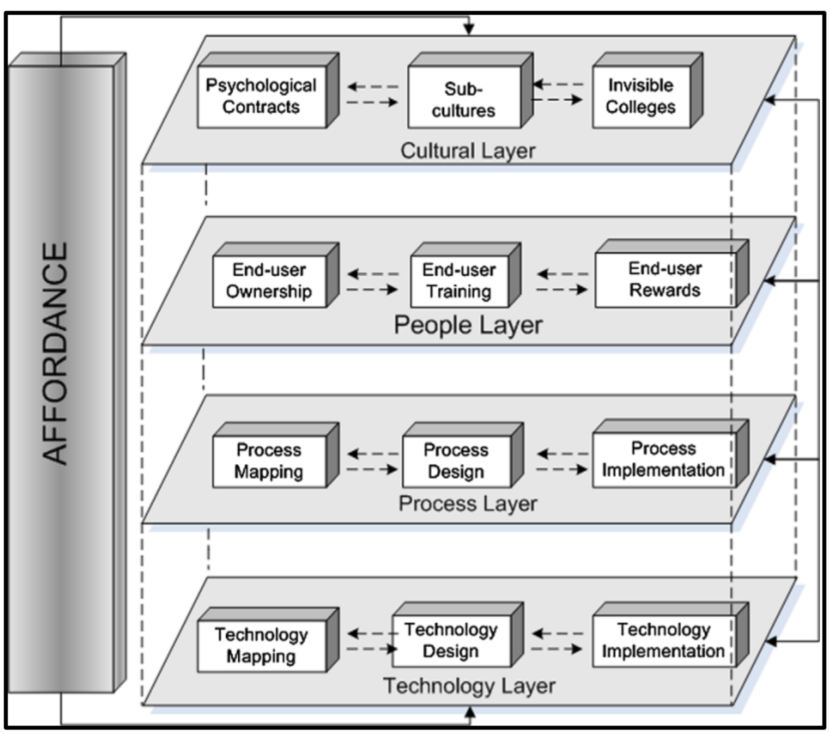

Figure 2: Four layers of Affordance

In above figure, we are depicting about the four layers of affordance which are – Technology layer, Process layer, People layer, cultural layer. Both process and technology layer contain mapping, design, Implementation of process and technology respectively.

3). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology

Adam Rapp, Kevin J. Trainor, Raj Agnihotri discussing about the revolution came in market through the CRM strategies. They find that the customer centric sources of customer relationship management technologies are directly influencing the company's customer linking capabilities. There is a interaction in customer relationship management technology capabilities and customer orientation. This interaction is influencing positively the linking capabilities. So, this study is all about the relationship between customer linking capability and customer relationship performance. This study is making several important contributions to the marketing and promotion of the books online. Customer relationship management strategies are totally capable of making or developing a online bookstore.

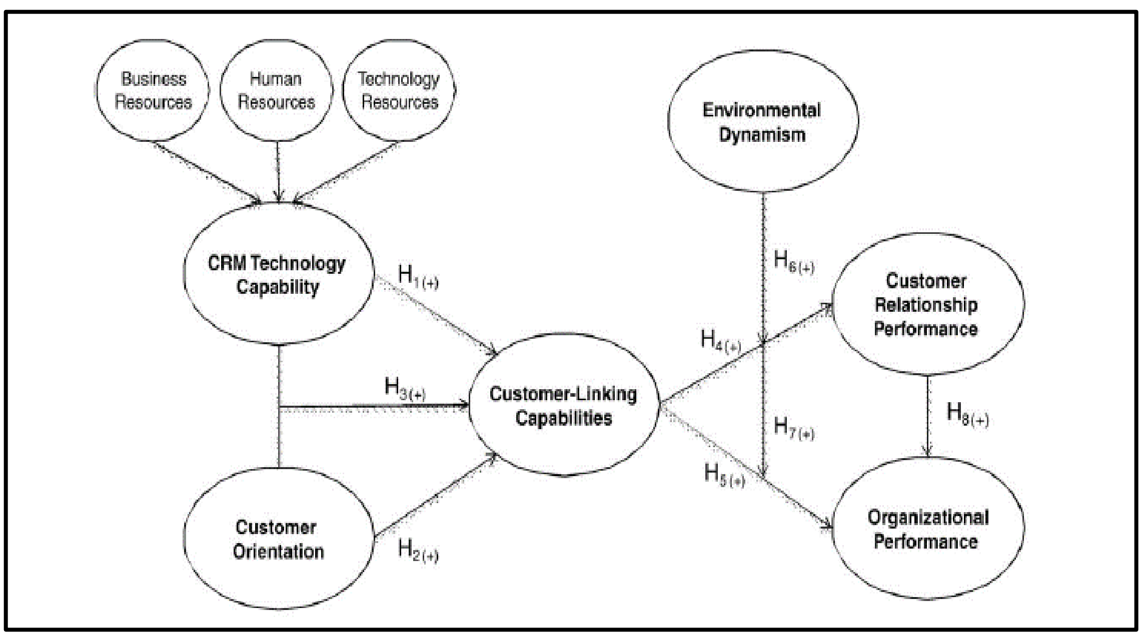

Figure 3: Customer linking capabilities

In the above figure, it is depicted that customer-linking capabilities is attached with the several major factors like CRM technology which has three parts (Business resources, Human resources, technology resources), Environmental Dynamism, Customer relationship performance, organizational performance, customer orientation. Organizational performance is totally based on environmental dynamism.

4). The effect of Customer Relationship Management systems on firm performance

Jacob Z. Haislipa, Vernon J. Richardson represents the customer relationship management as a approach or way for the marketing and promoting their products to the customers or consumers. Customer relationship management is developing the relationship between with the customers by interacting with them. So, handling consumers and maintaining them is one of the works of CRM. According to their study, CRM system and strategies increase the consumer satisfaction by completing their all the needs. So, CRM increase the profit percentage of the company. Customer relationship management also helps in improving business processes. So, in their study they are discussing about the benefits that are coming from applying customer relationship management strategies.

The figure below is depicting panel A and panel B in which they are showing the year distributions and industry distributions. Panel A of year distributions sorts according to the years and on the hand industry distribution is sorted according to equipment and the services.

Sample statistics.

Panel A: year distributions

Year		CRM implementations	Control firms	All firms
2001		13	108	121
2002		22	304	326
2003		11	152	163
2004		13	288	301
2005		10	174	184
2006		11	89	100
2007		3	12	15
2008		1	13	14
2009		2	15	17
2010		0	0	0
2011		1	14	15
Total		87	1169	1256
Panel B: industry distributions				
Industry	2-digit SIC code	CRM implementations	Control firms	All firms
Chemicals	28–29	6	101	107
Electrical	36, 38	13	178	191
Equipment	35	5	39	44
Retail sales	50–59	9	37	46
Services	70–79	16	375	391
All others	All others	38	439	477
Total		87	1169	1256

Figure 4: Year and Industry distributions

5). A group recommendation system for online communities

According to the report of Jae Kyeong Kima, Hyea Kyeong Kima, Hee Young Oha, Young U. Ryu it has reported that the 1.17 billion of world population surfs web now a days. So, by using customer relationship management there is a lot of chances of getting profit from opening an online bookstore. As there are too many social platforms and communities by interacting with them can promote about our bookstore and the products. Also, recommendation plays a very vital role in promoting book. We can see that these days several group activities and interaction are done by using customer relationship management strategies. In this report they propose two phases for the recommendation effects for supporting the several online communities. This report proposed a fully improved recommendation procedure.

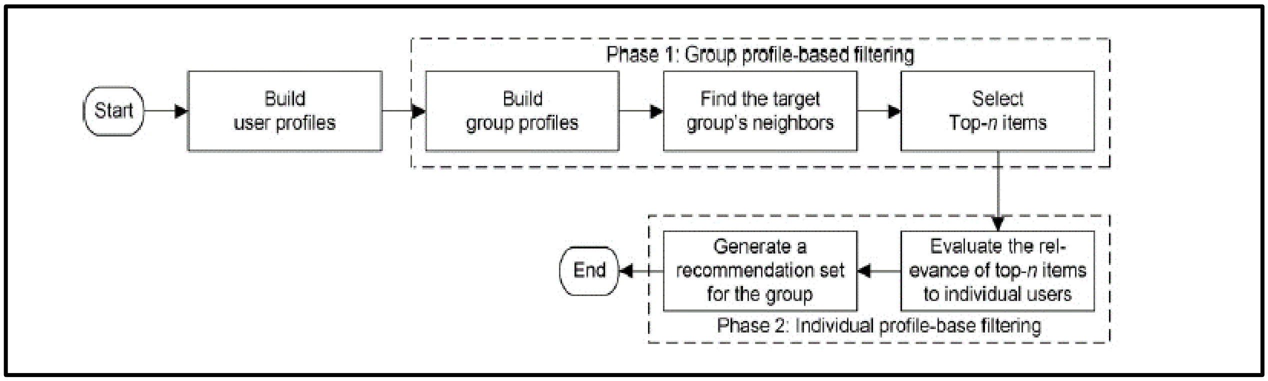

Figure 5: Two user profiles

In above figure, it is depicted two phases in which one phase is Group profile-based filtering and another phase-2 is individual profile-base filtering.

Group (size)	Optimal Database Marketing	The MIS Behavior of Markets	Data Mining Techniques	CRM at the Speed of Light, 3G	Semantic Web and P2P	Executive Recommendation for the Best Products	Link	The Hidden Power of Social Networks
IT Wizards (5)	3	1	1	0	3	0	2	4
Best CRM (7)	0	5	0	1	0	3	3	3
Case Review (9)	1	0	3	0	2	2	1	1
AI World (10)	4	0	0	5	4	1	1	4
Next e-Biz (8)	3	2	1	0	2	4	3	2

Note: The figure in each cell indicates the number of group members who have read the book.

Figure 6: Members of the group who read

In above figure, the members of the group who have read the book is shown.

Comparison of Scholarly Literature & Current Practice

Table 1: Comparison table

Comparison Basis	Current Practice	Academic Literature
A) Does current practice match theory?	As in current practice there are several uses of 'customer relationship management' in various field as well as in online bookstore.	According to the academic literature they talk or discussed about the same things we use currently.
B) Is the 'real world' ahead or behind what the research tells us?	One of the examples in currently is 'Well Fargo' which is responsible for keeping as eye over the property of 70M people. They know that most of their consumers use more than one bank accounts, so they keep track them by using CRM strategy and connectivity.	The current practice does match the literature reviews. The real world in some countries is behind what the research are telling us. CRM in current is use for approaching the customers and promoting the product and this is happening in current practice too.
C) You will need to make sure that your current practice section relates to your literature as this shows how you match applied concepts/theory to the 'real world'	Another example is 'Activision' which is very popular publisher in united states for video game market there. In current practice they are using the same customer relationship management strategies for completing the needs of customers.	

Modelling using ArchiMate

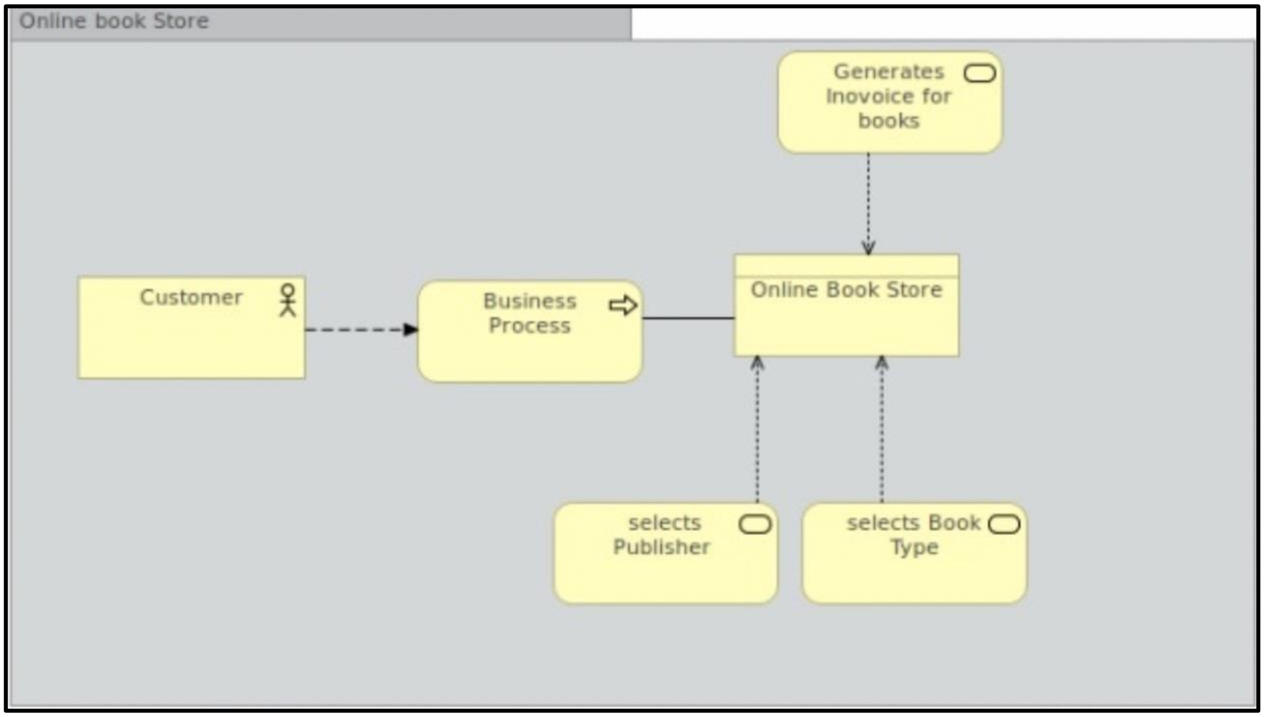

Figure 7: Modelling

Prototype

a) Data Objects

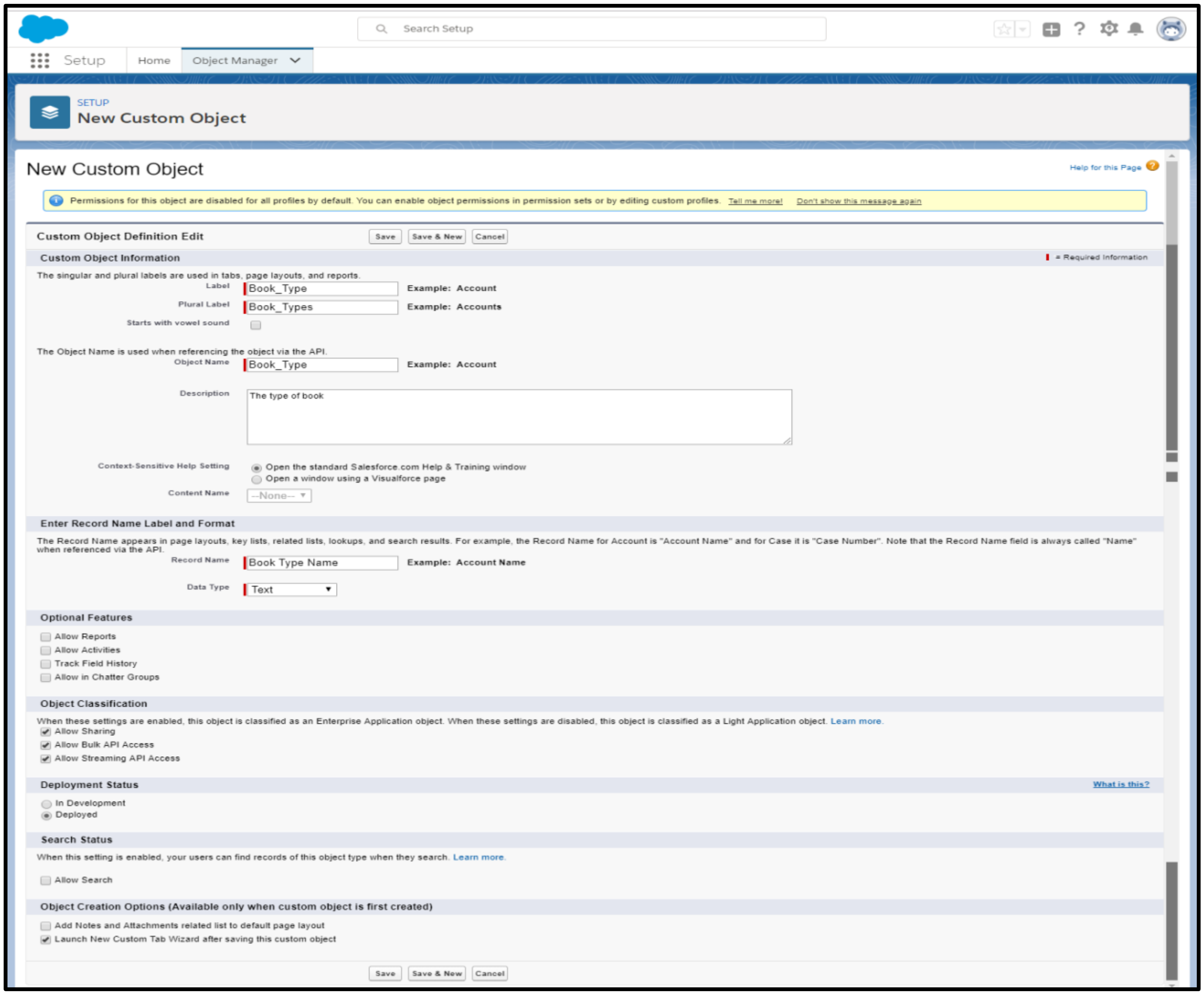

Figure 8: Book_type object

Figure 9: Adding field Book_Type_ID Step 1

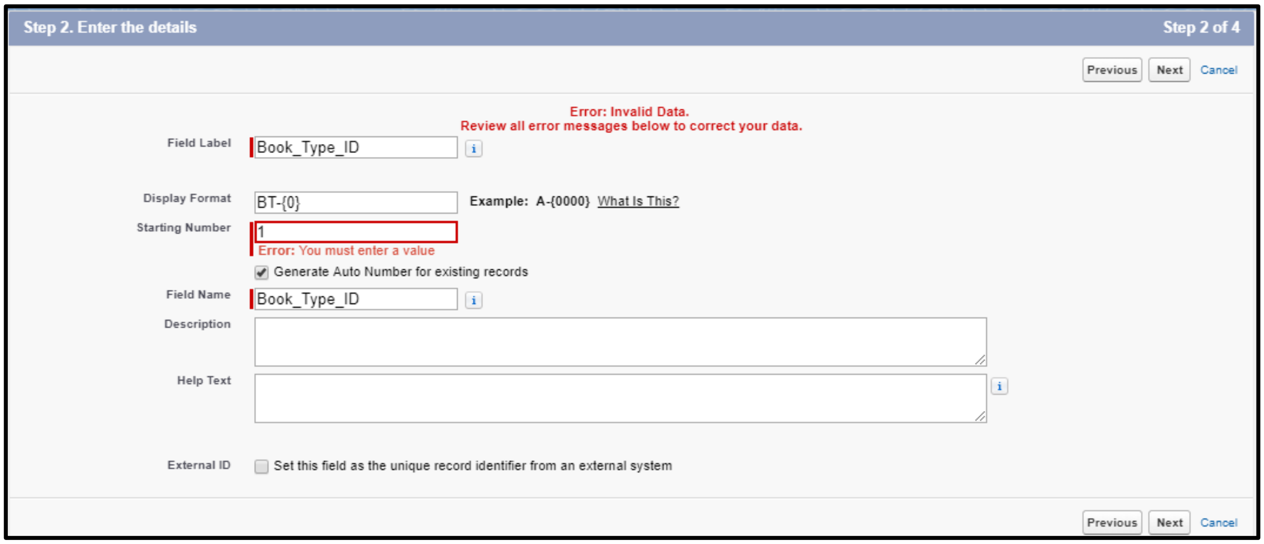

Figure 10:Adding field Book_Type_ID Step 2

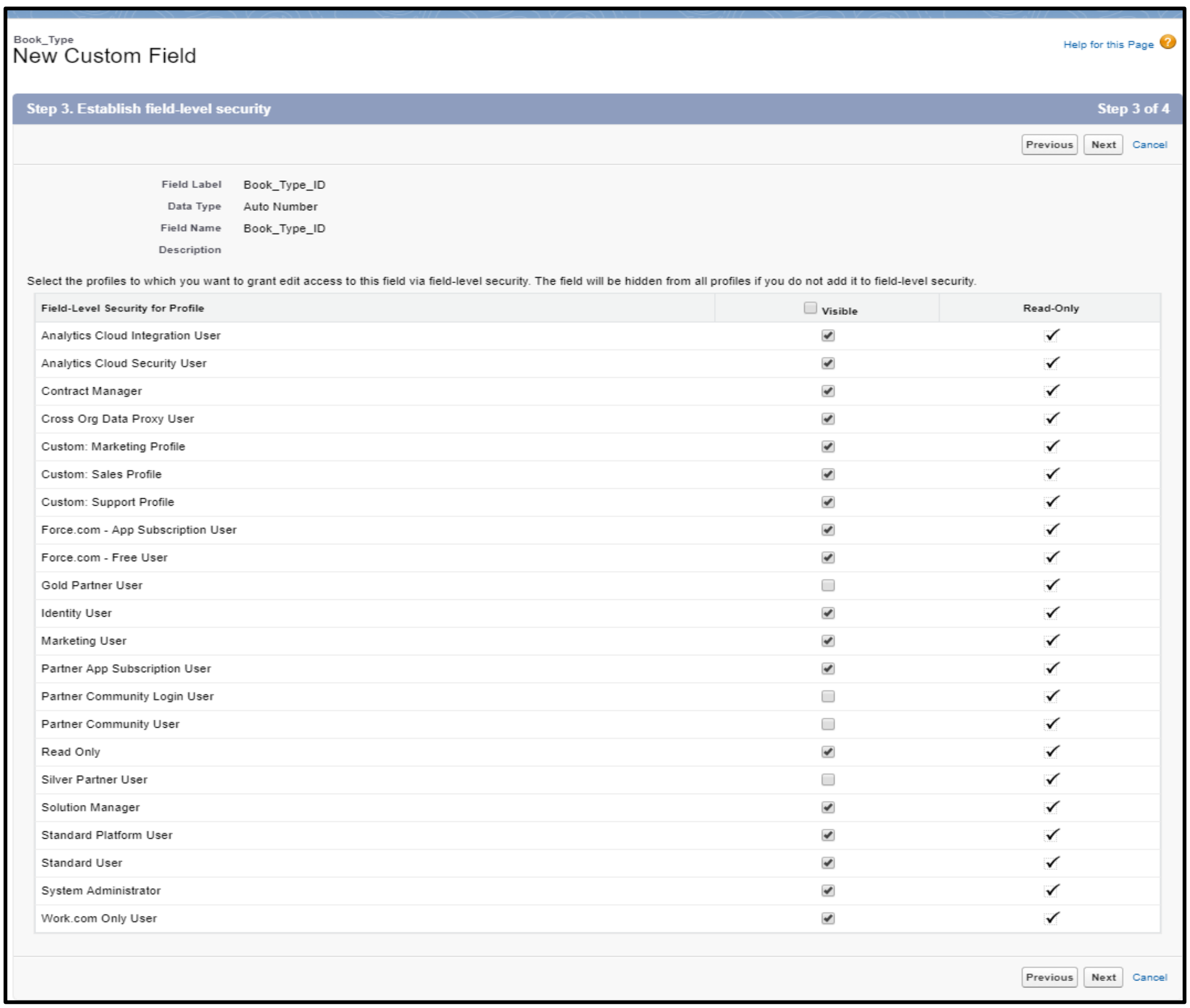

Figure 11: Adding field Book_Type_ID Step 3

Figure 12: Adding field Book_Type_ID Step 4

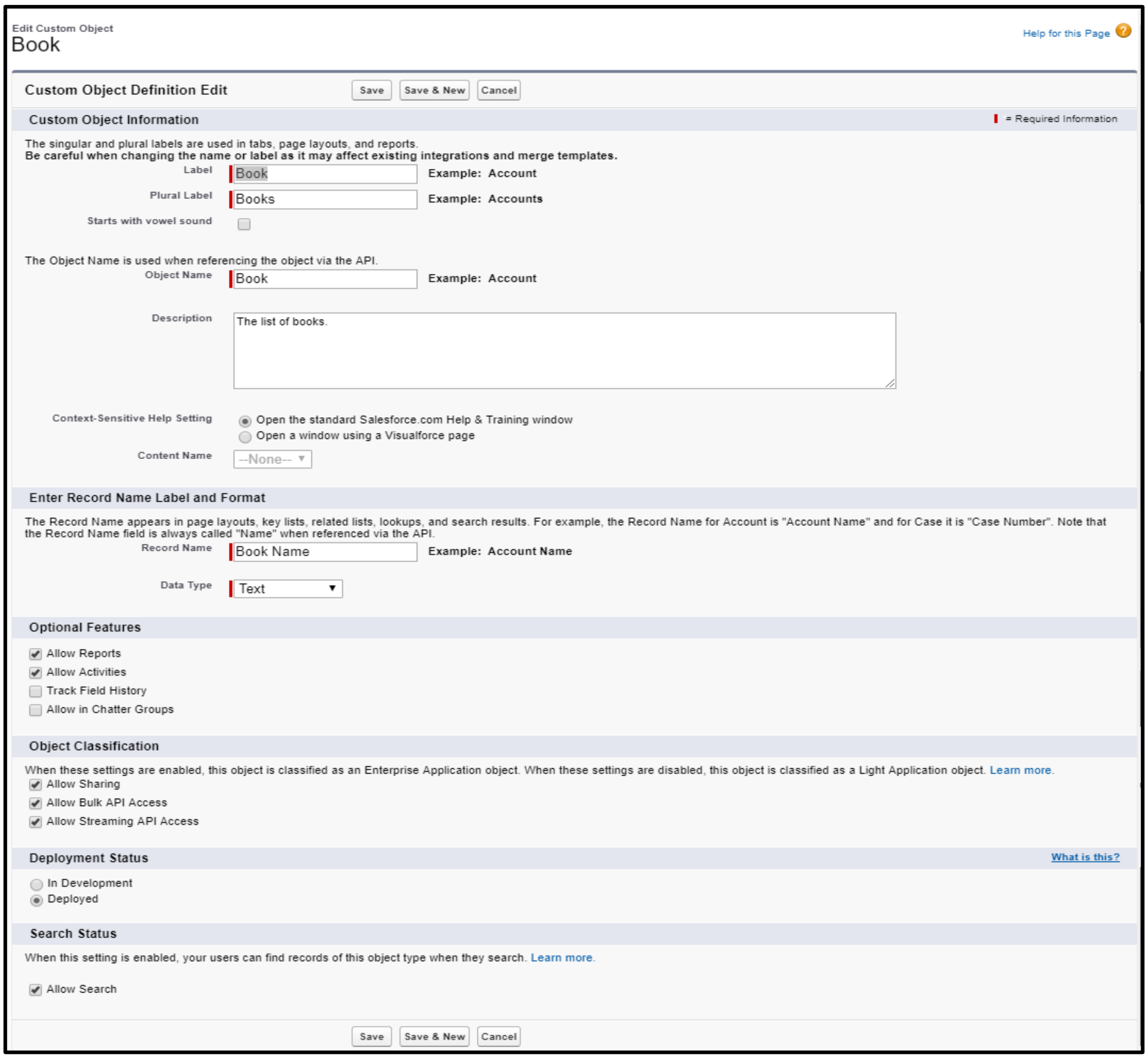

Figure 13: Book object

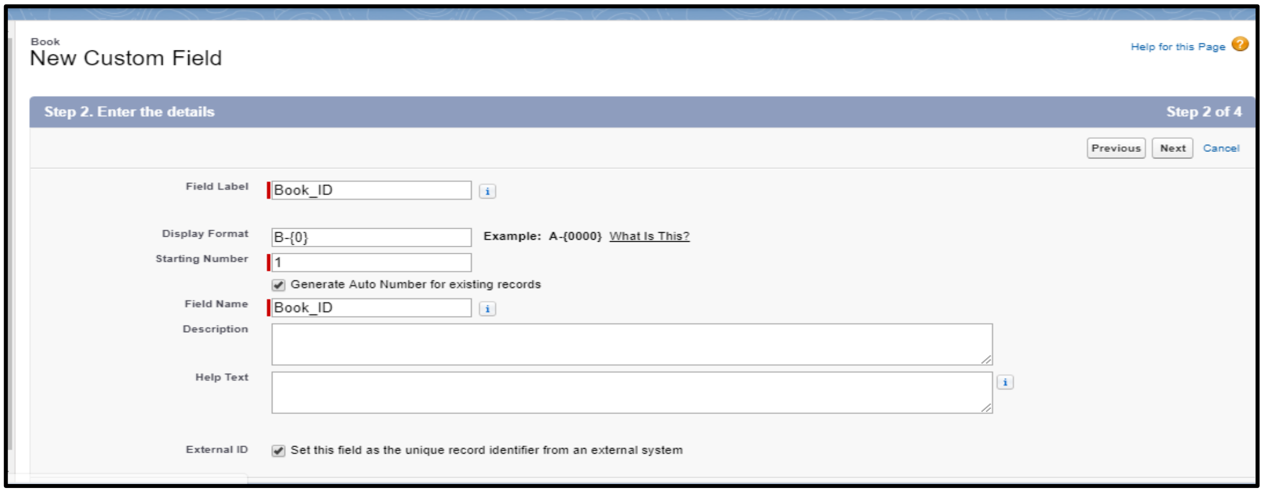

Figure 14: Adding field Book_ID

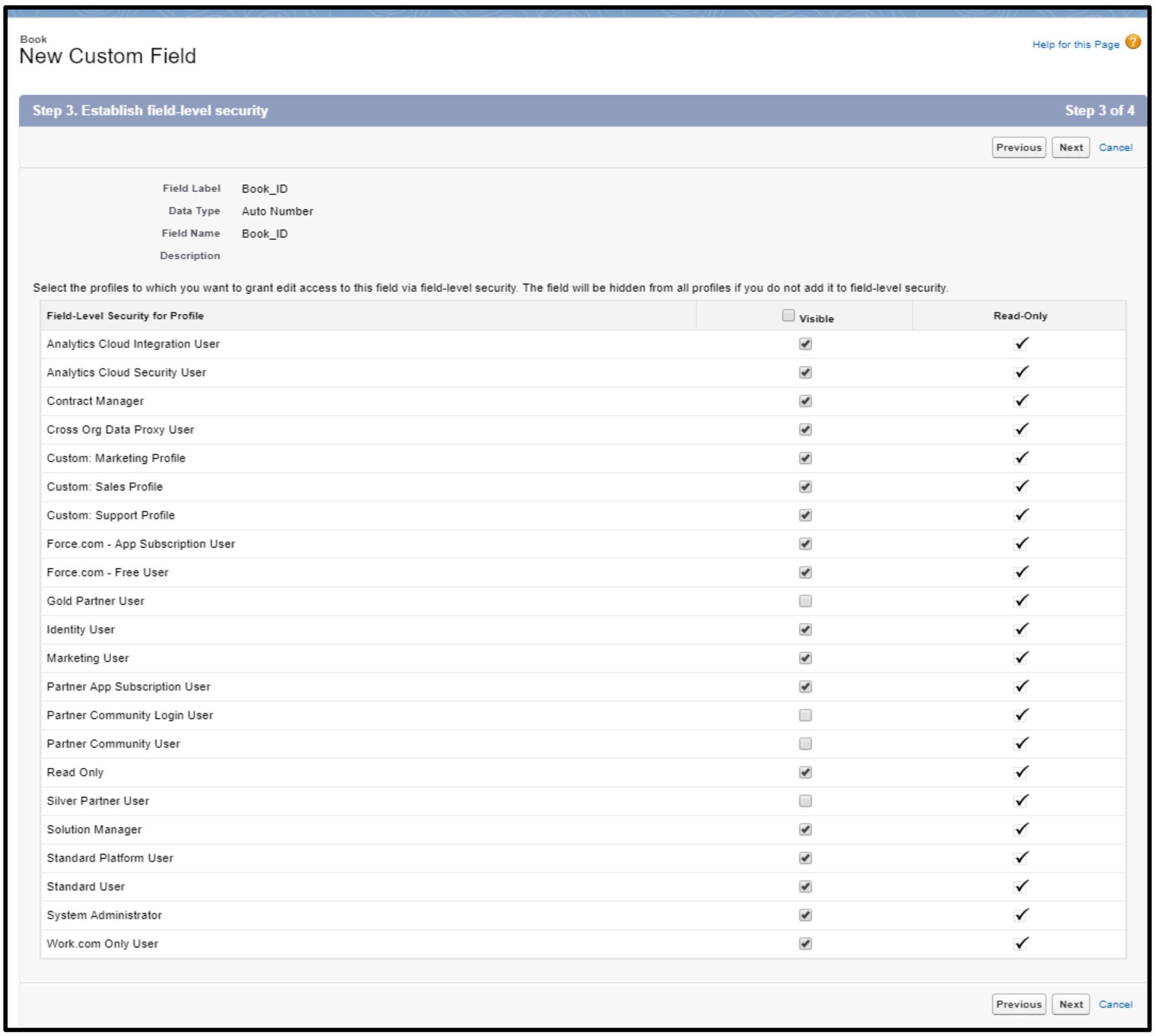

Figure 15: Adding field Book_ID

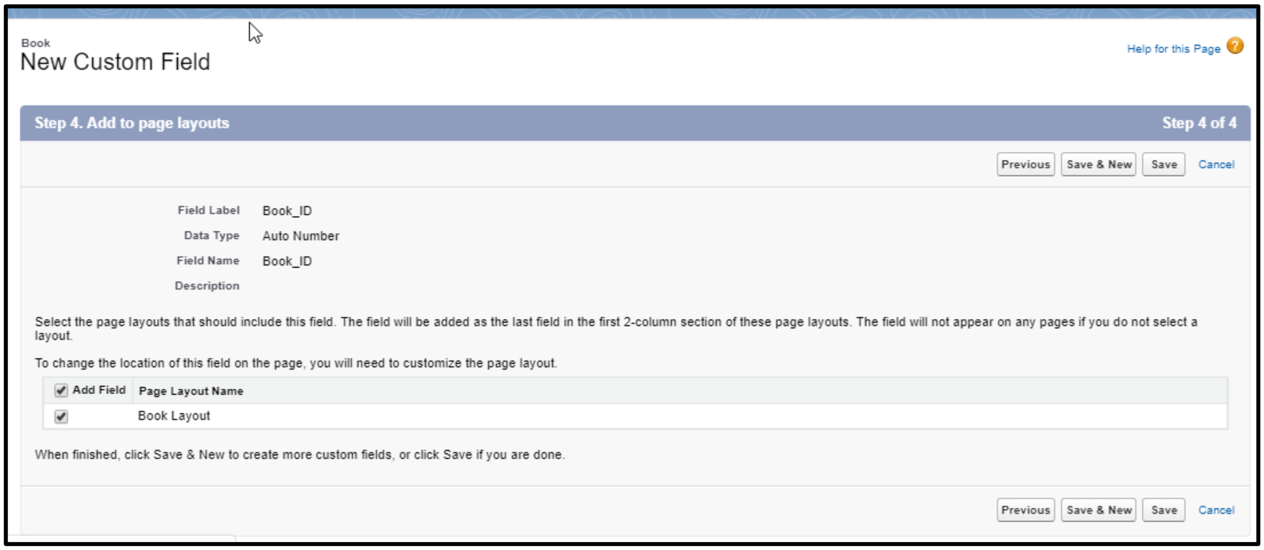

Figure 16: Adding field Book_ID

- *[Master-Detail Relationship: 1 (Master-Detail of Book with Publisher)]*

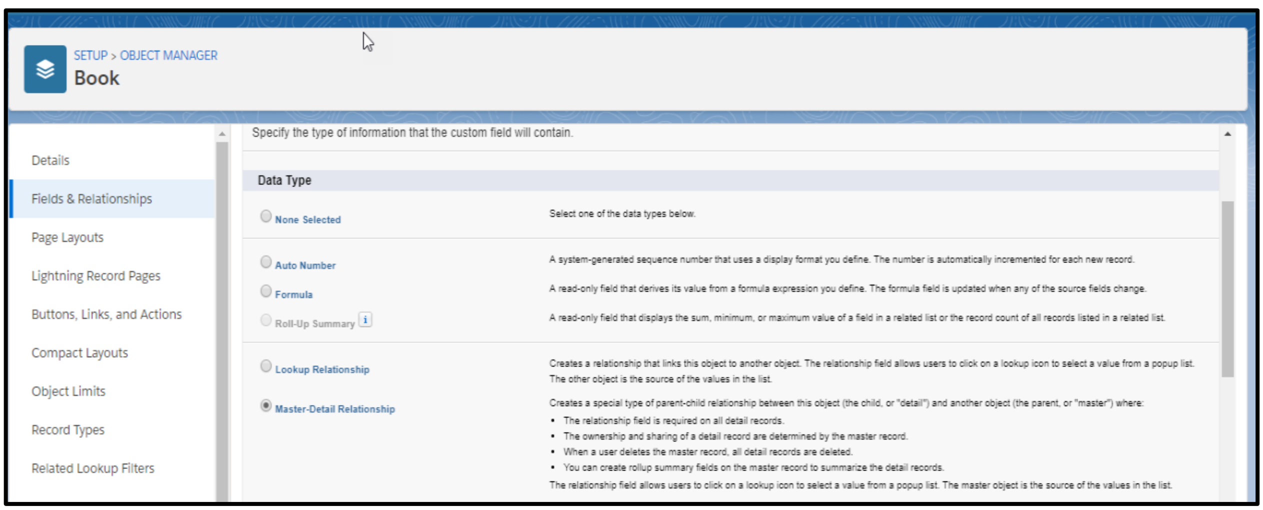

Figure 17: Master Detail (with Publisher)

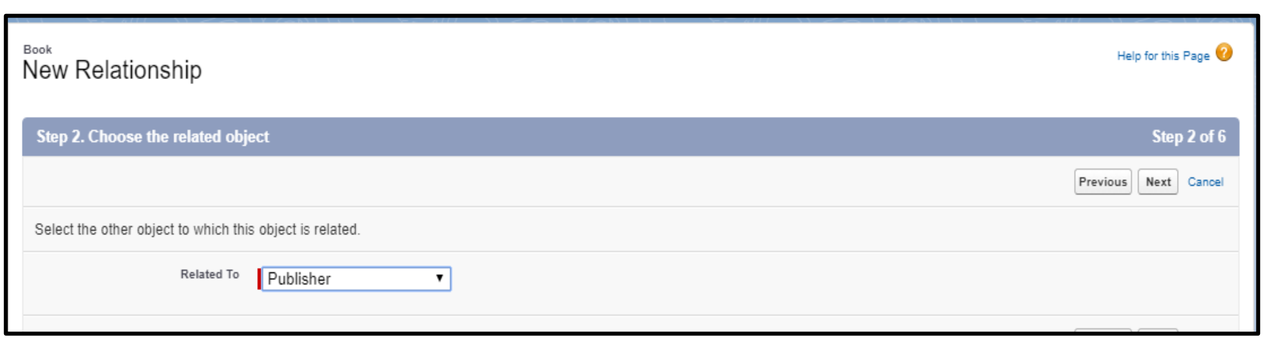

Figure 18: Master Detail (with Publisher)

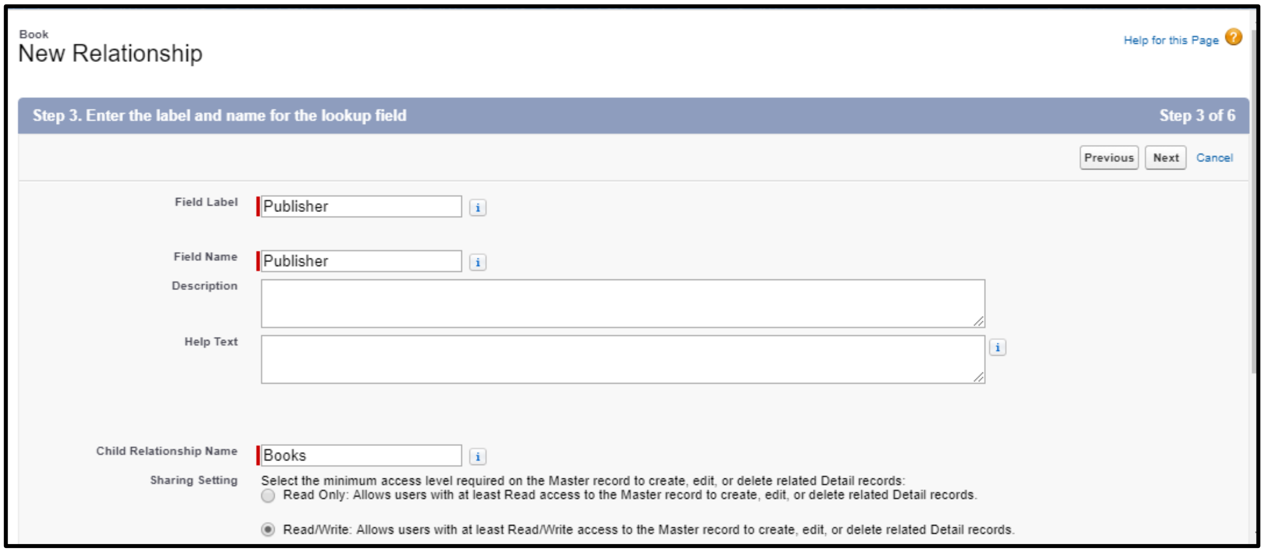

Figure 19: Master Detail (with Publisher)

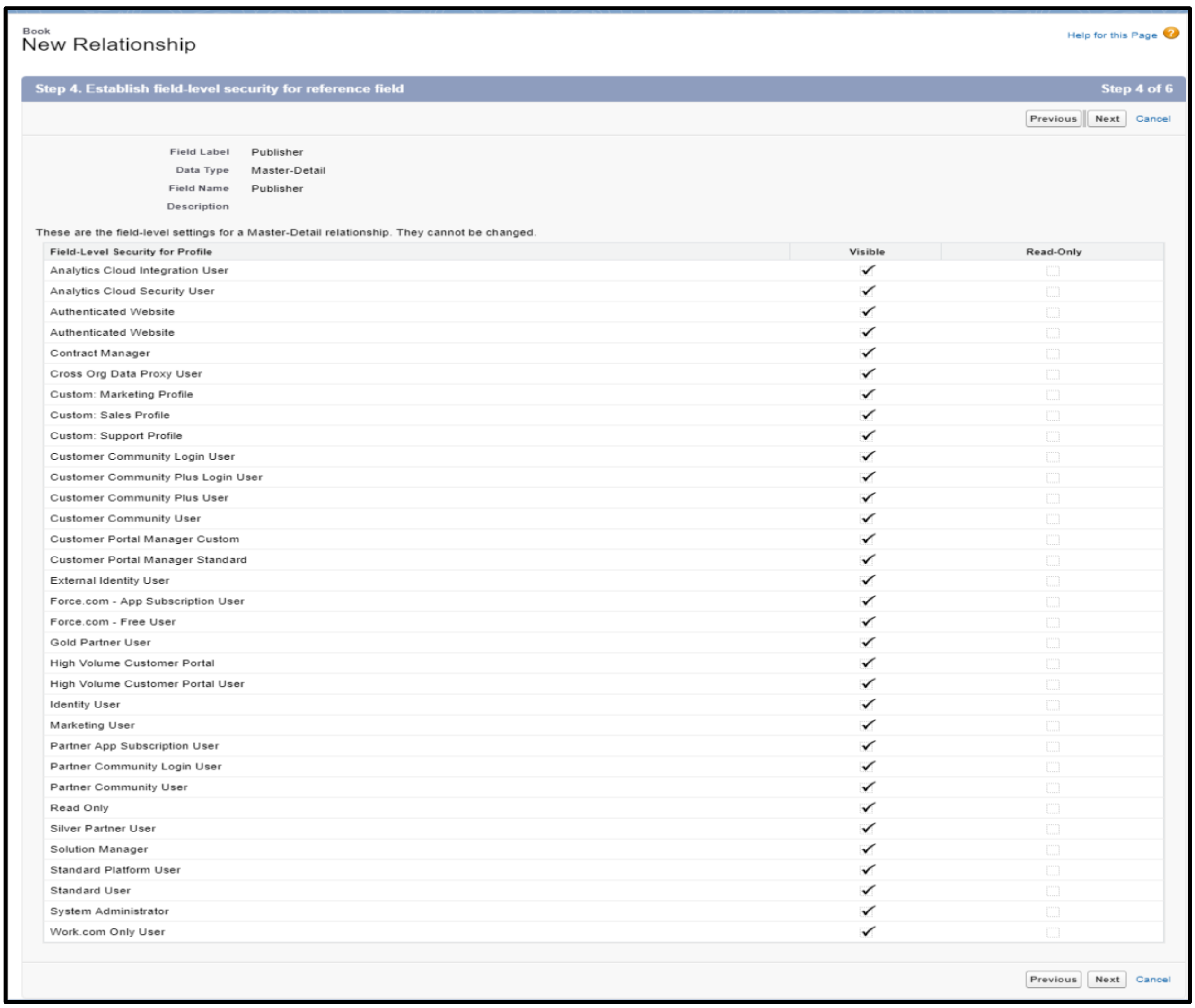

Figure 20: Master Detail (with Publisher)

Figure 21: Master Detail (with Publisher)

Figure 22: Master Detail (with Publisher)

- *Master-Detail Relationship: 2 (Master-Detail of Book with Book_Type)*

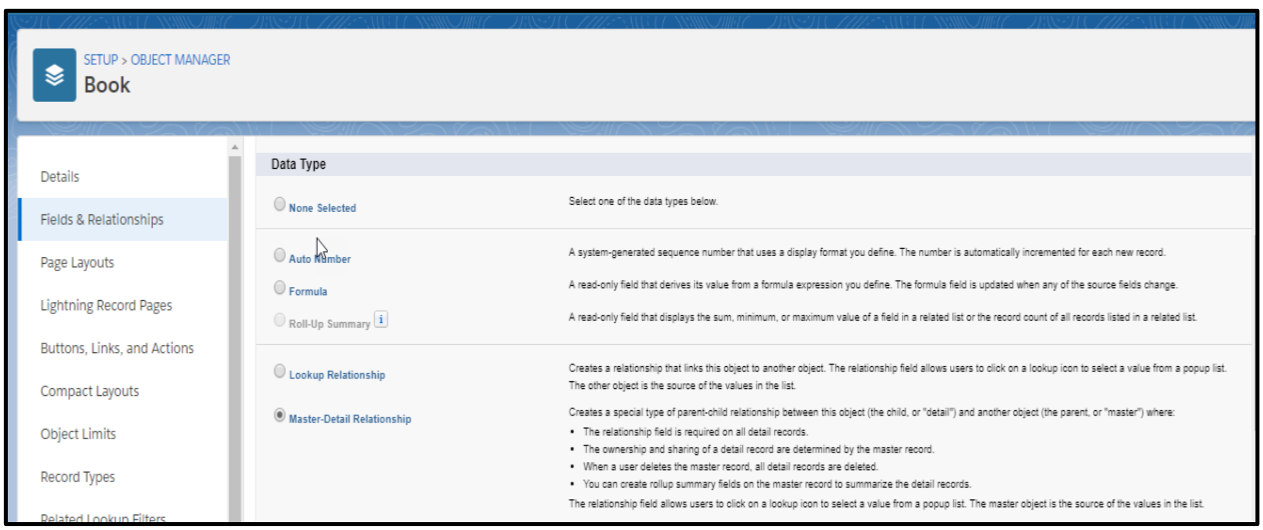

Figure 23: Master Detail of Book with Book_Type

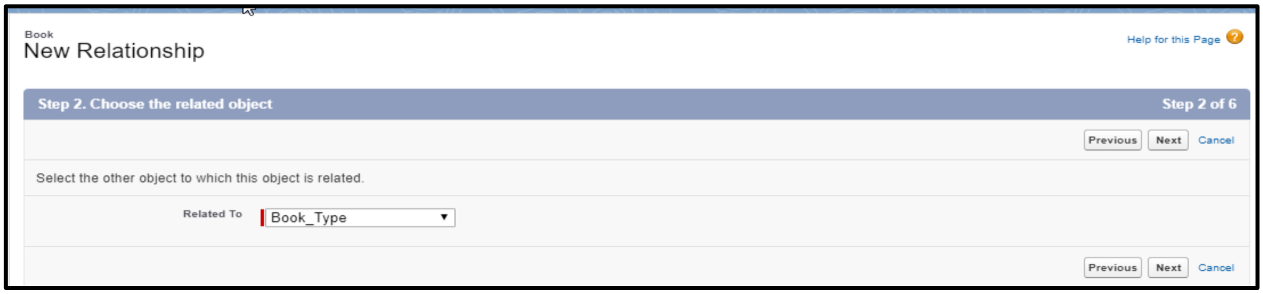

Figure 24: Master Detail of Book with Book_Type

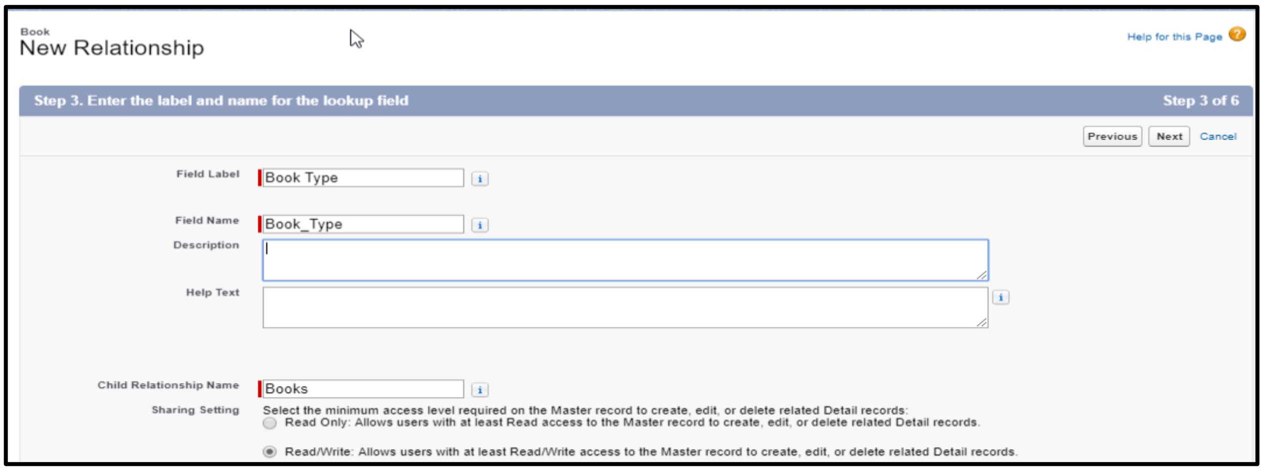

Figure 25:Master Detail of Book with Book_Type

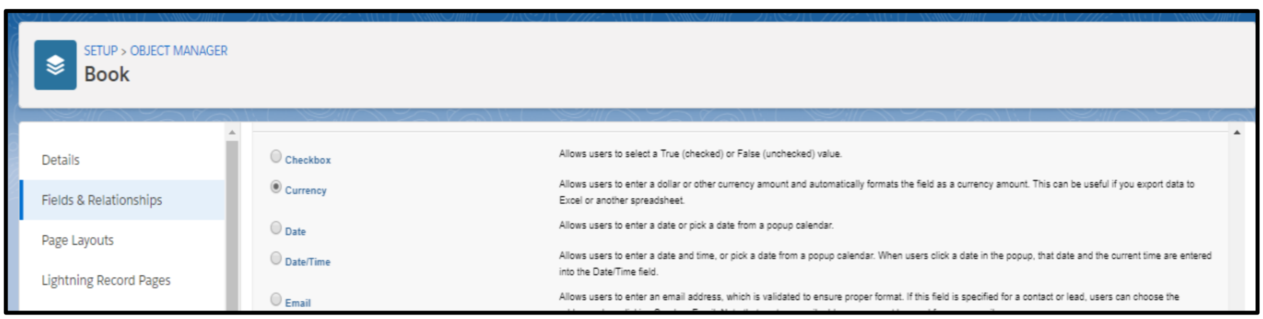

Figure 26: Adding Price field

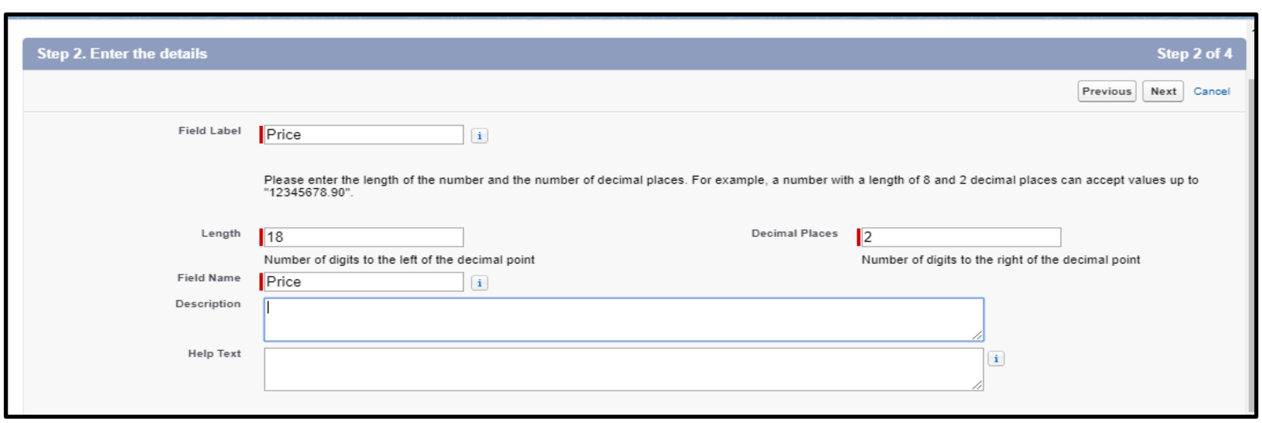

Figure 27: Adding Price field

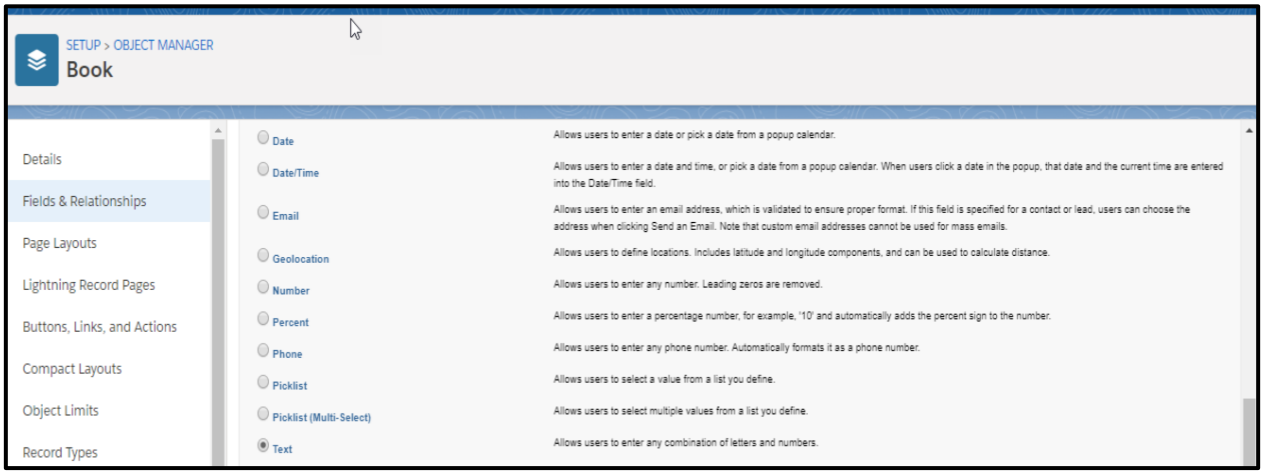

Figure 28: Adding Author field

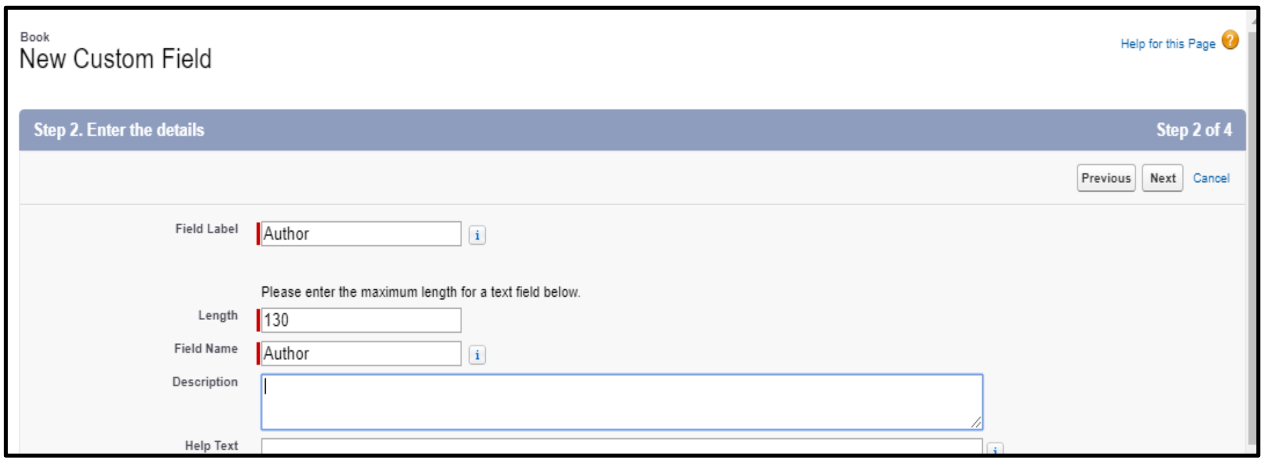

Figure 29: Adding Author field

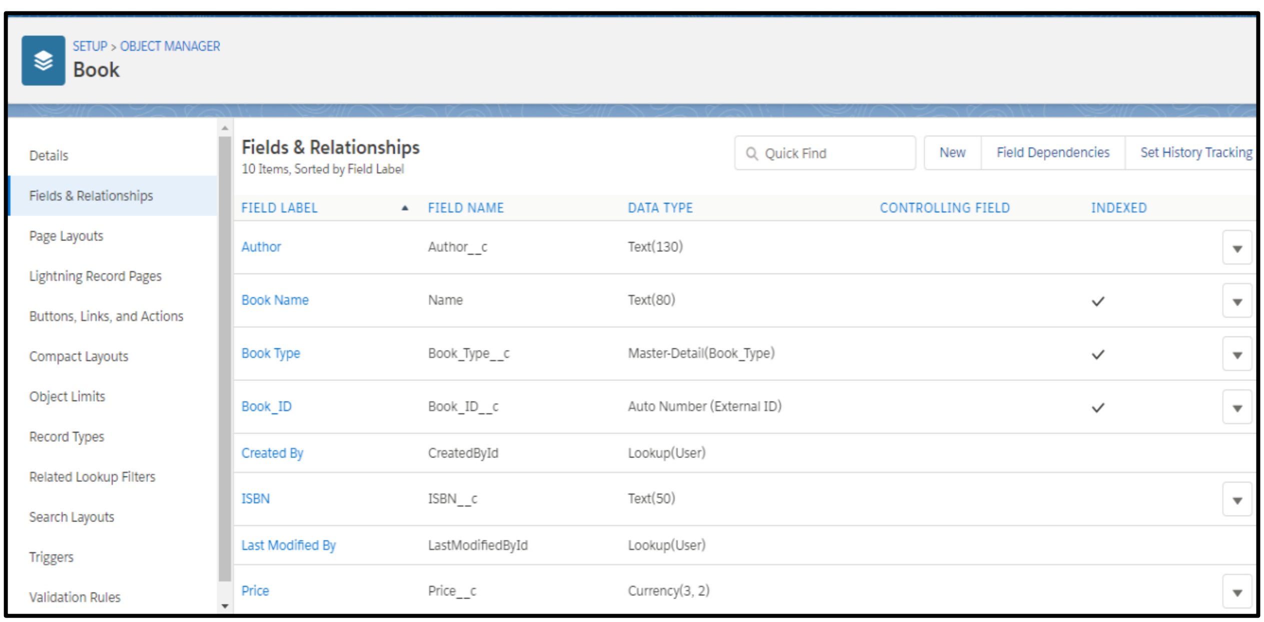

Figure 30: Book Fields and Relationships

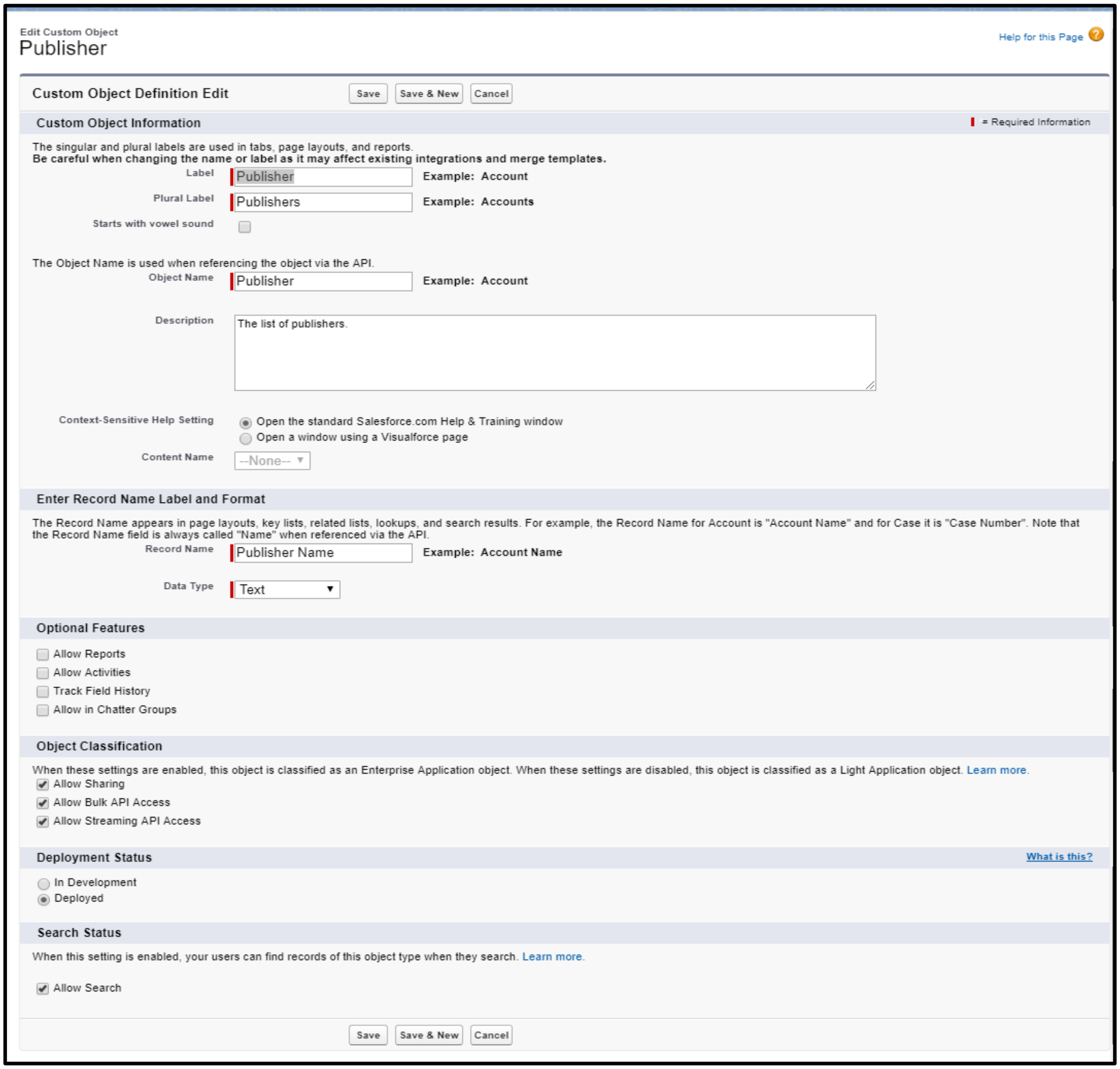

Figure 31: Publisher object

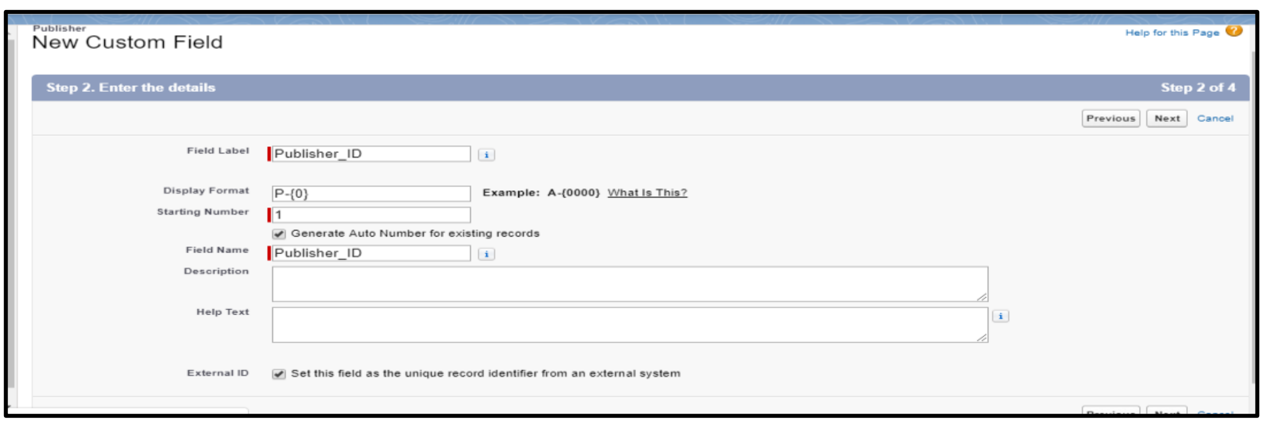

Figure 32: Adding field Publisher_ID

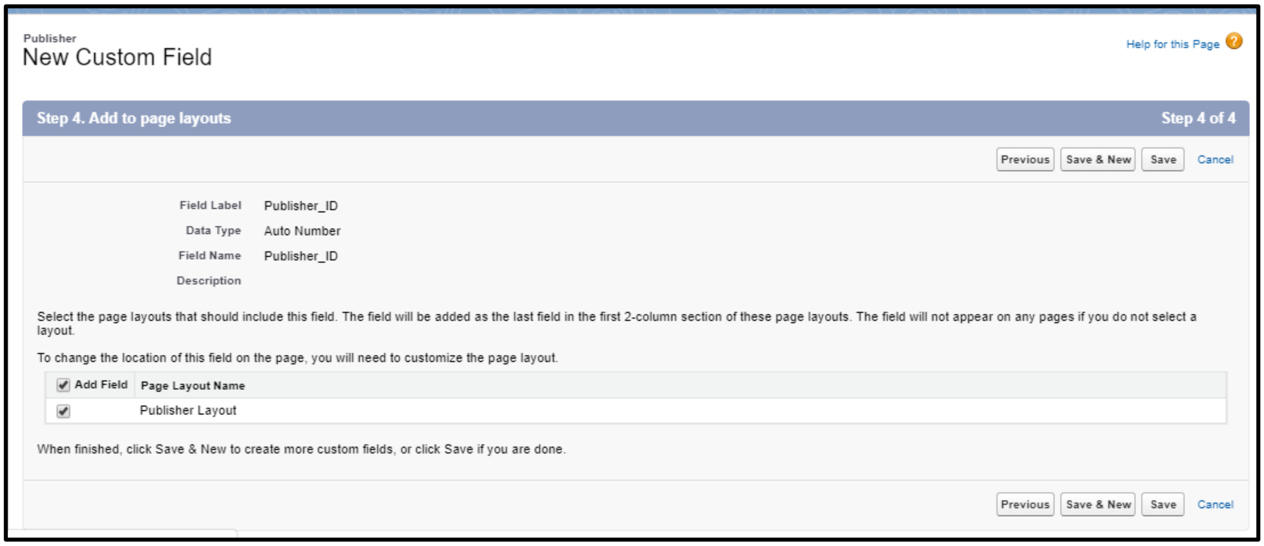

Figure 33: Adding field Publisher_ID

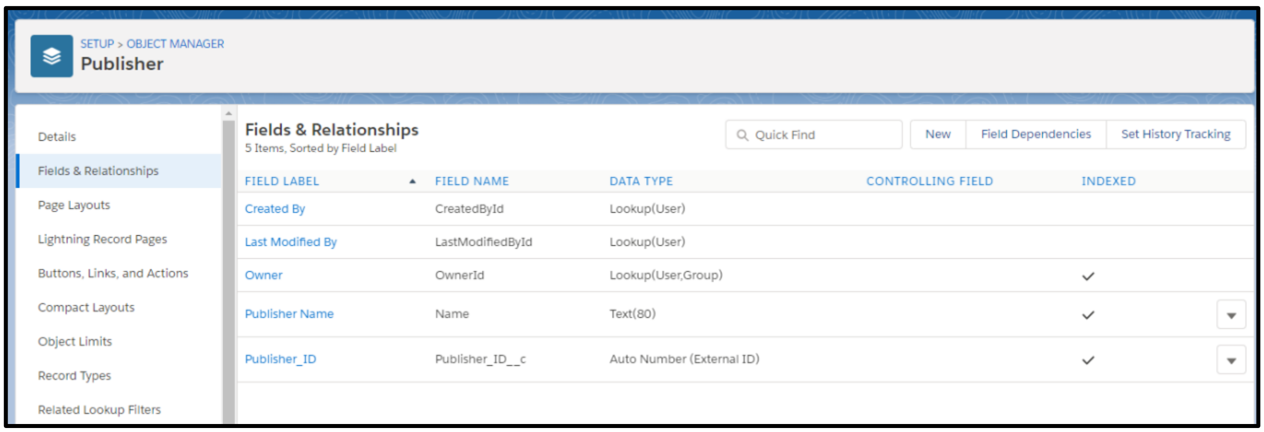

Figure 34: Publisher Fields

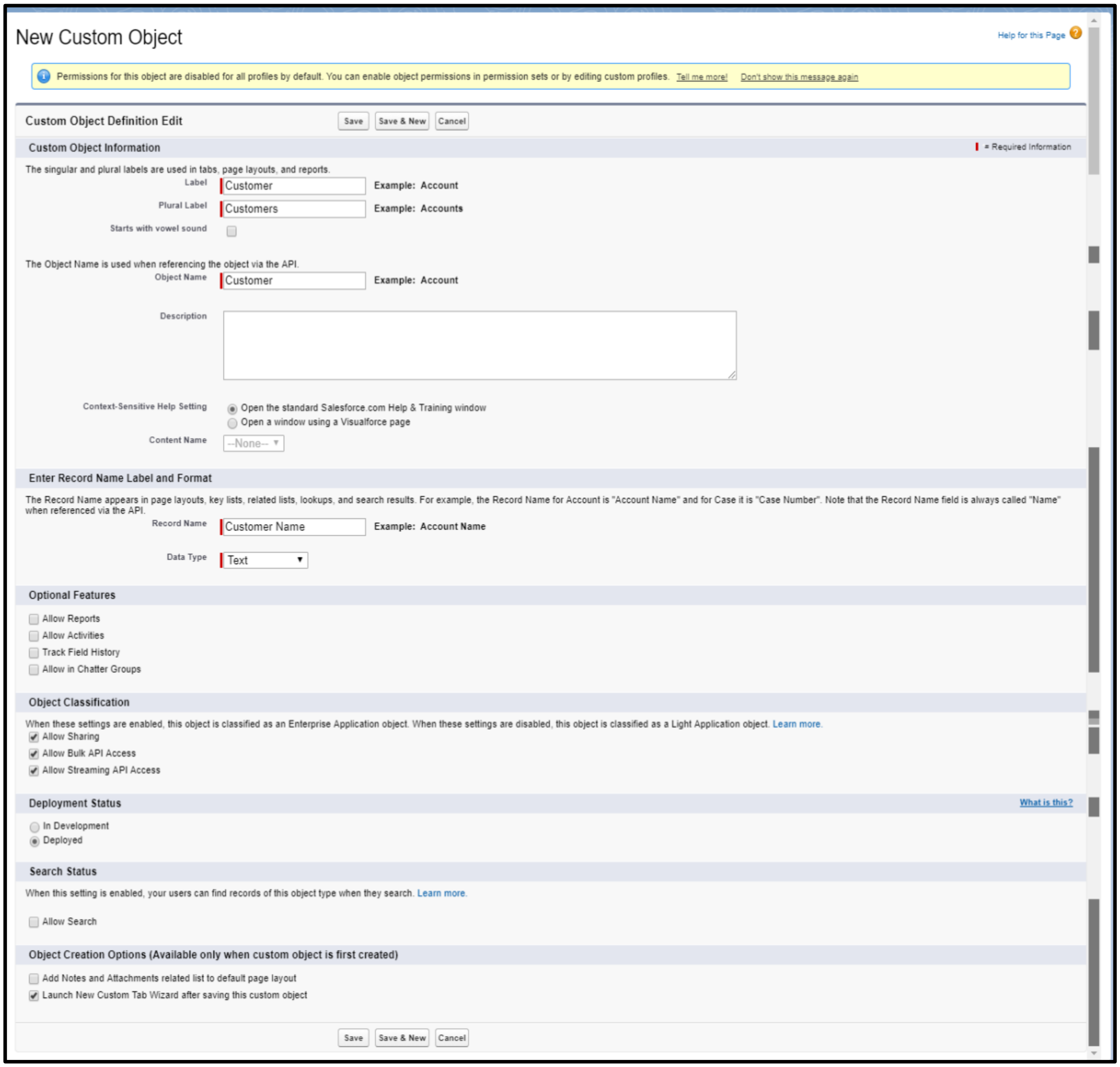

Figure 35: Customer object

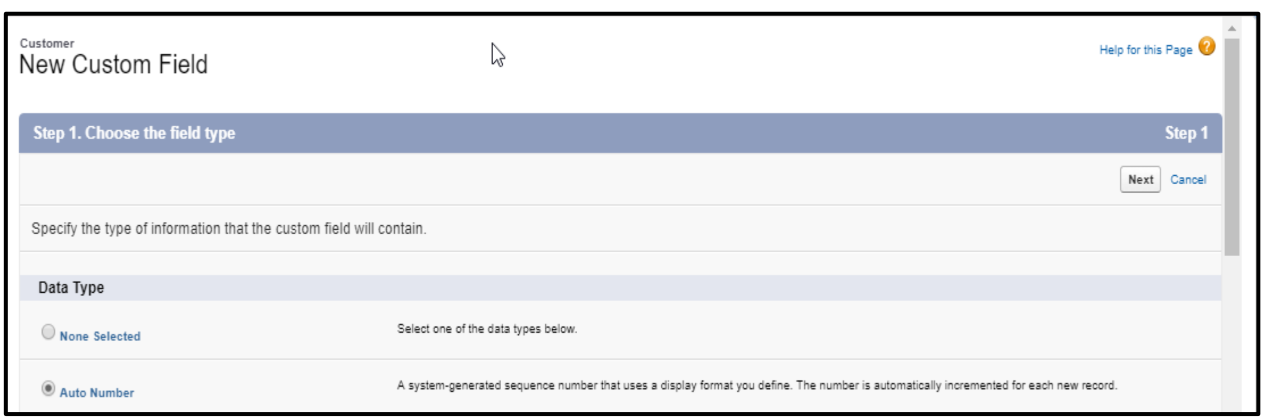

Figure 36: Adding Customer_ID

Figure 37: Adding Customer_ID

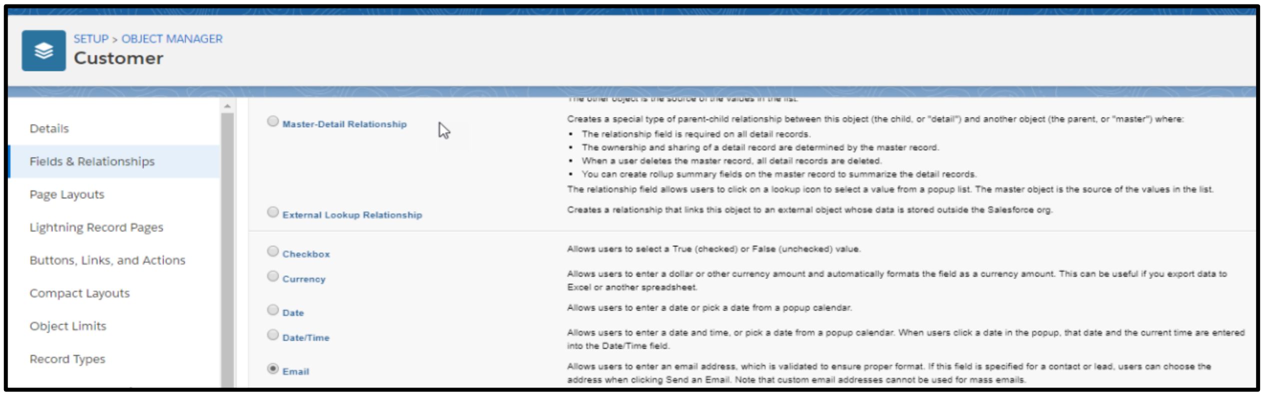

Figure 38: Adding Email

Figure 39: Adding Email

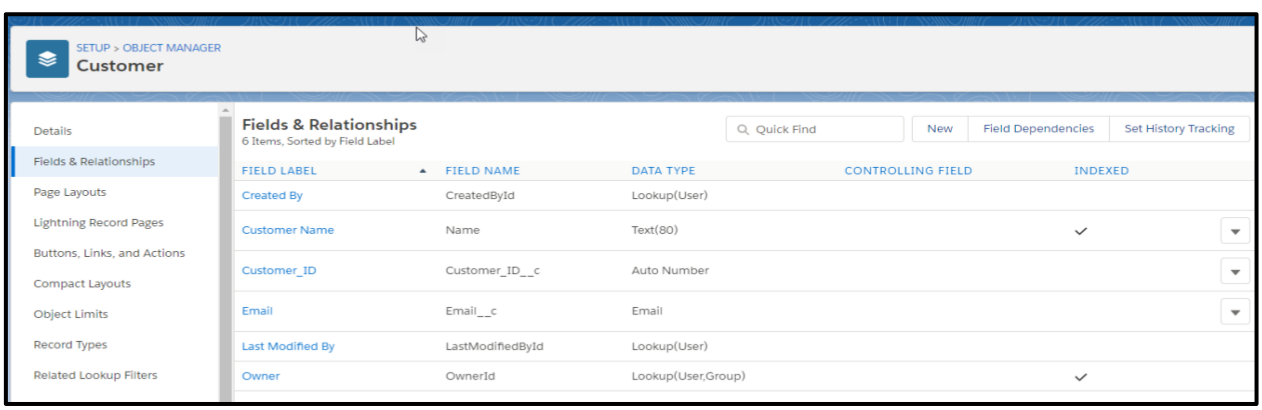

Figure 40: Customer fields

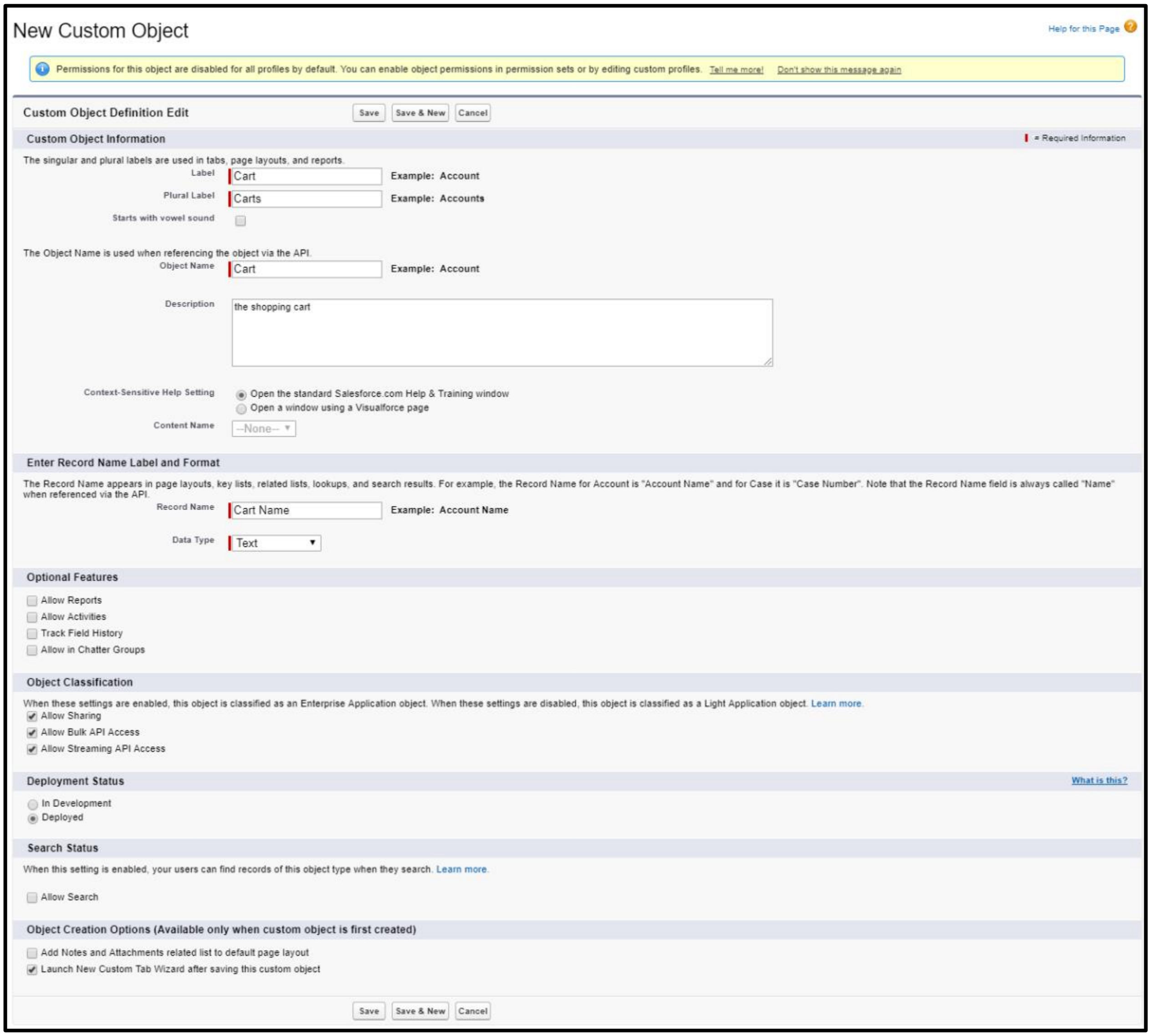

Figure 41: Cart object

- ***Master-Detail Relationship: 3 (Master-Detail of Cart with Book)***

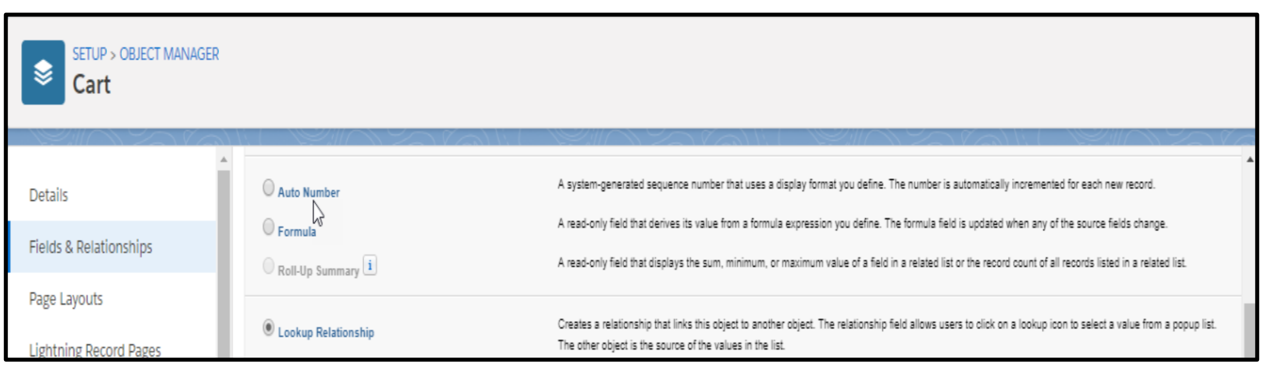

Figure 42: Master Detail of Cart with Book

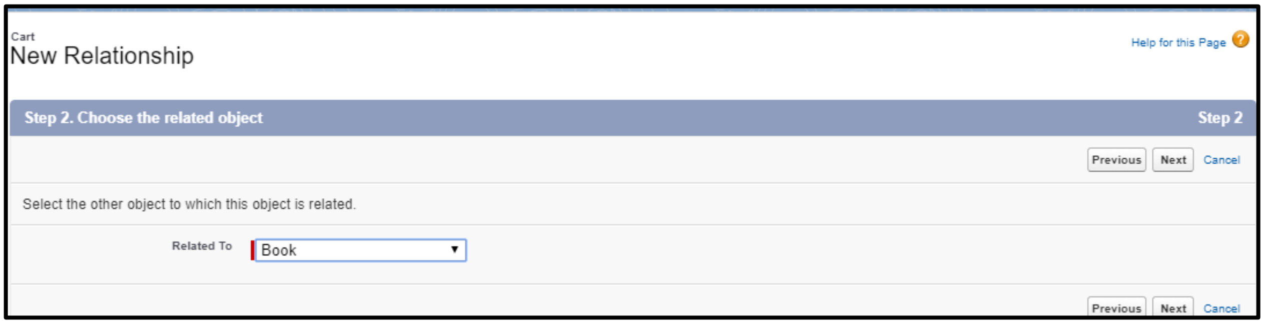

Figure 43: Master Detail of Cart with Book

Figure 44: Master Detail of Cart with Book

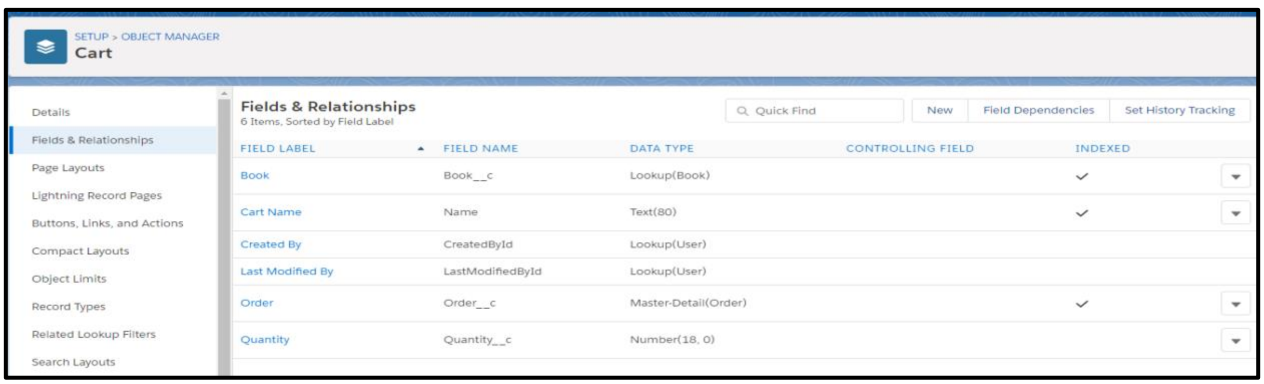

Figure 45: Cart Fields and Relationships

Order Object Fields

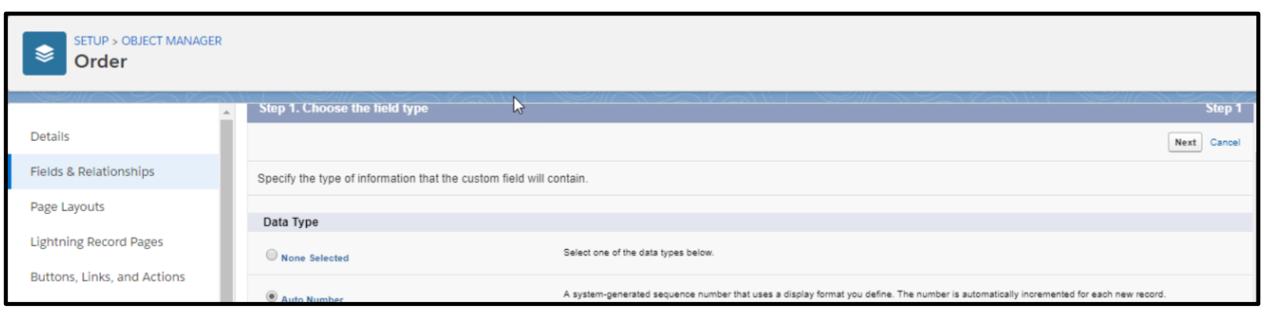

Figure 46: Order_ID field

- *Lookup Relationship: 4 (Lookup of Order with Customer)*

Figure 47: Lookup of Order with Customer

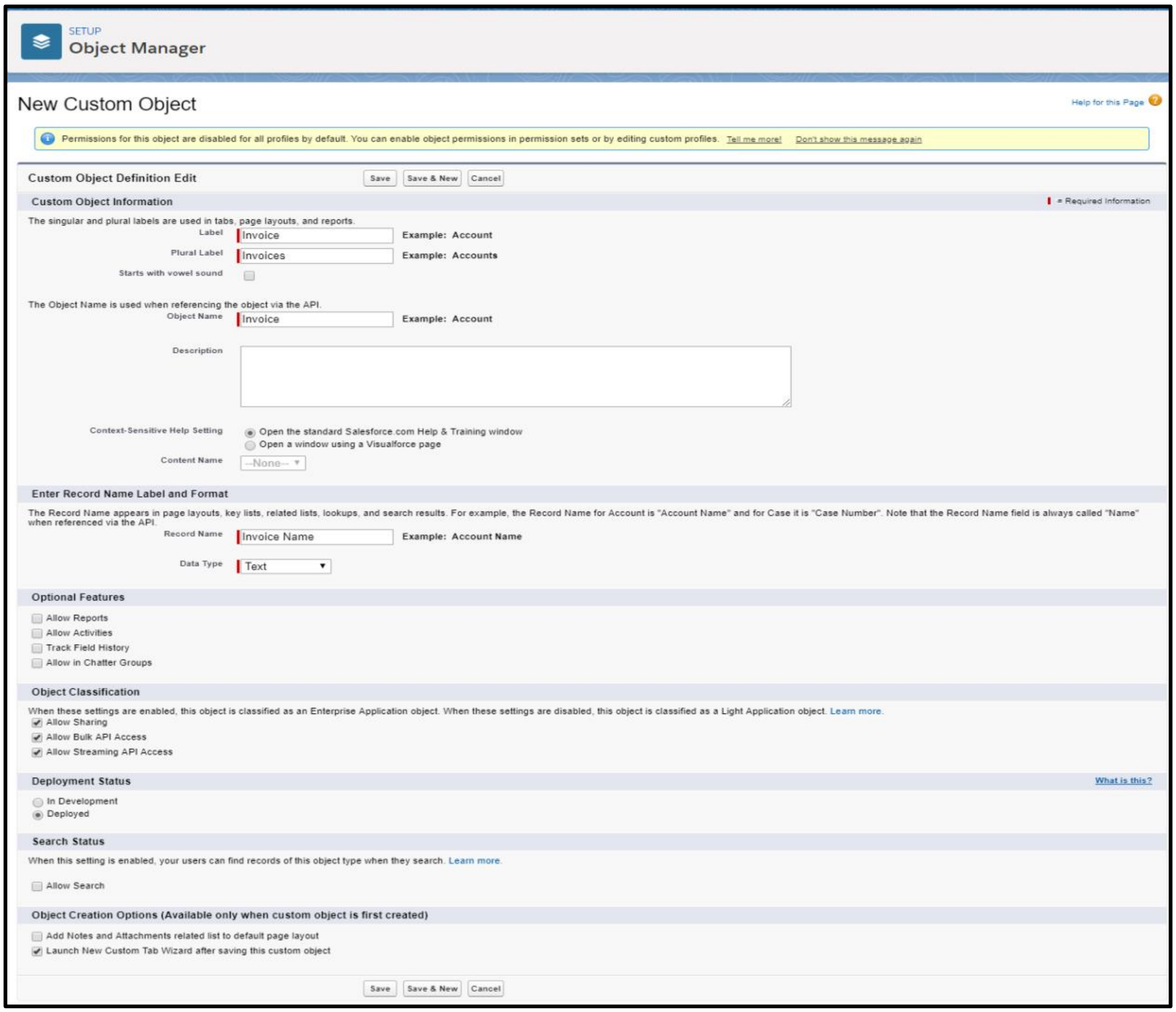

Figure 48: Invoice object

Figure 49: Adding Invoice_ID field

Figure 50: Adding Invoice_ID field

- *Master-Detail Relationship: 5 (Master-Detail of Invoice with Order)*

Figure 51: Master Detail of Invoice with Order

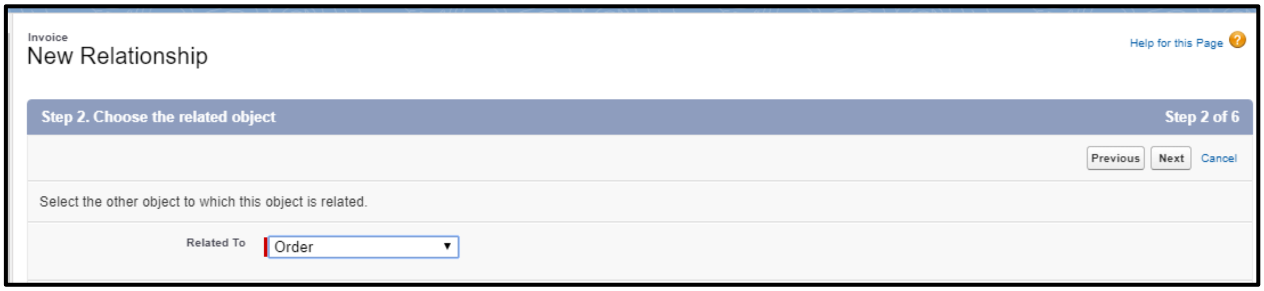

Figure 52: Master Detail of Invoice with Order

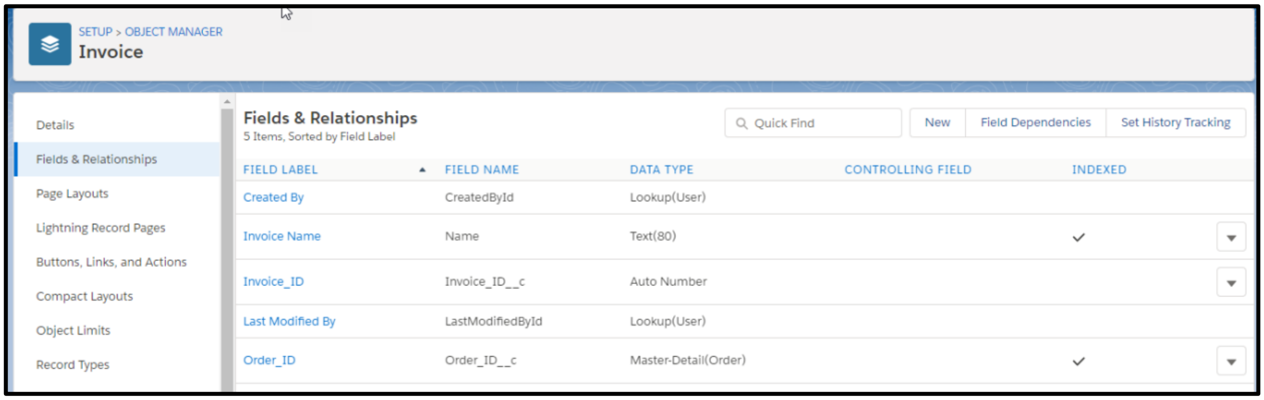

Figure 53: Master Detail of Invoice with Order

b) Tabs for all objects

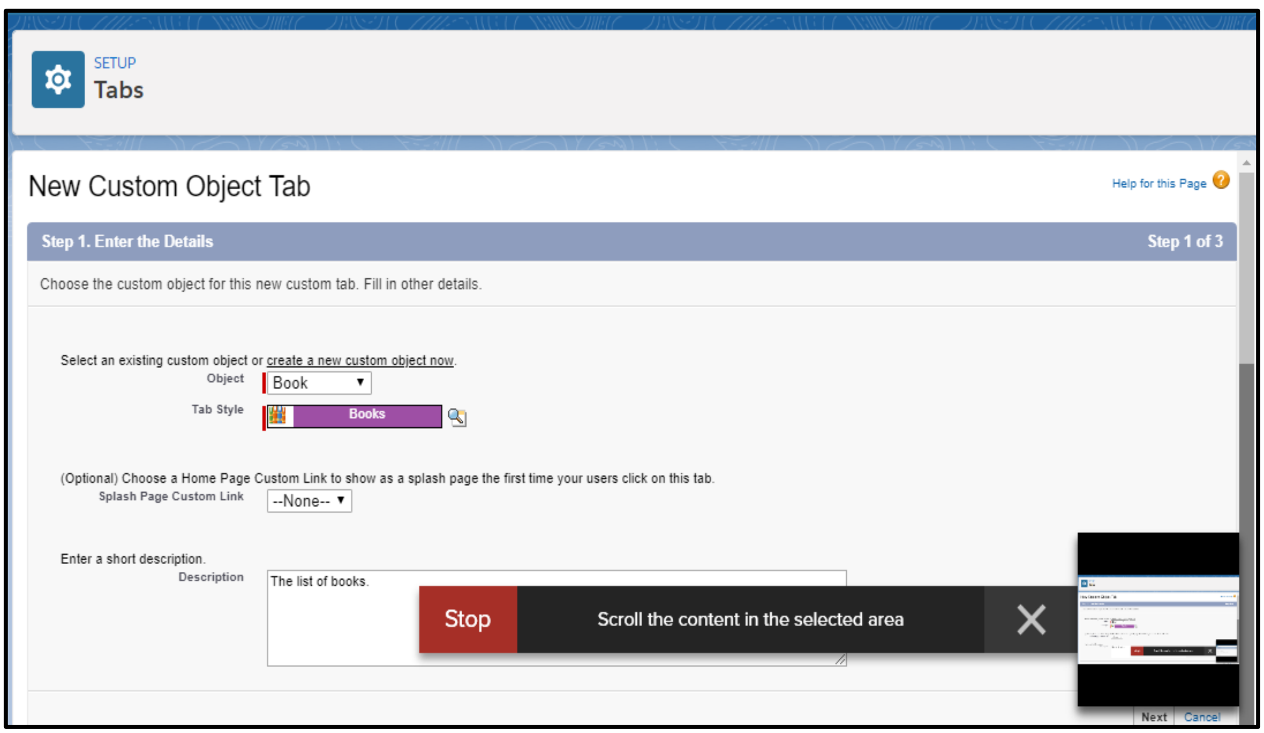

Figure 54: Book object tab step 1

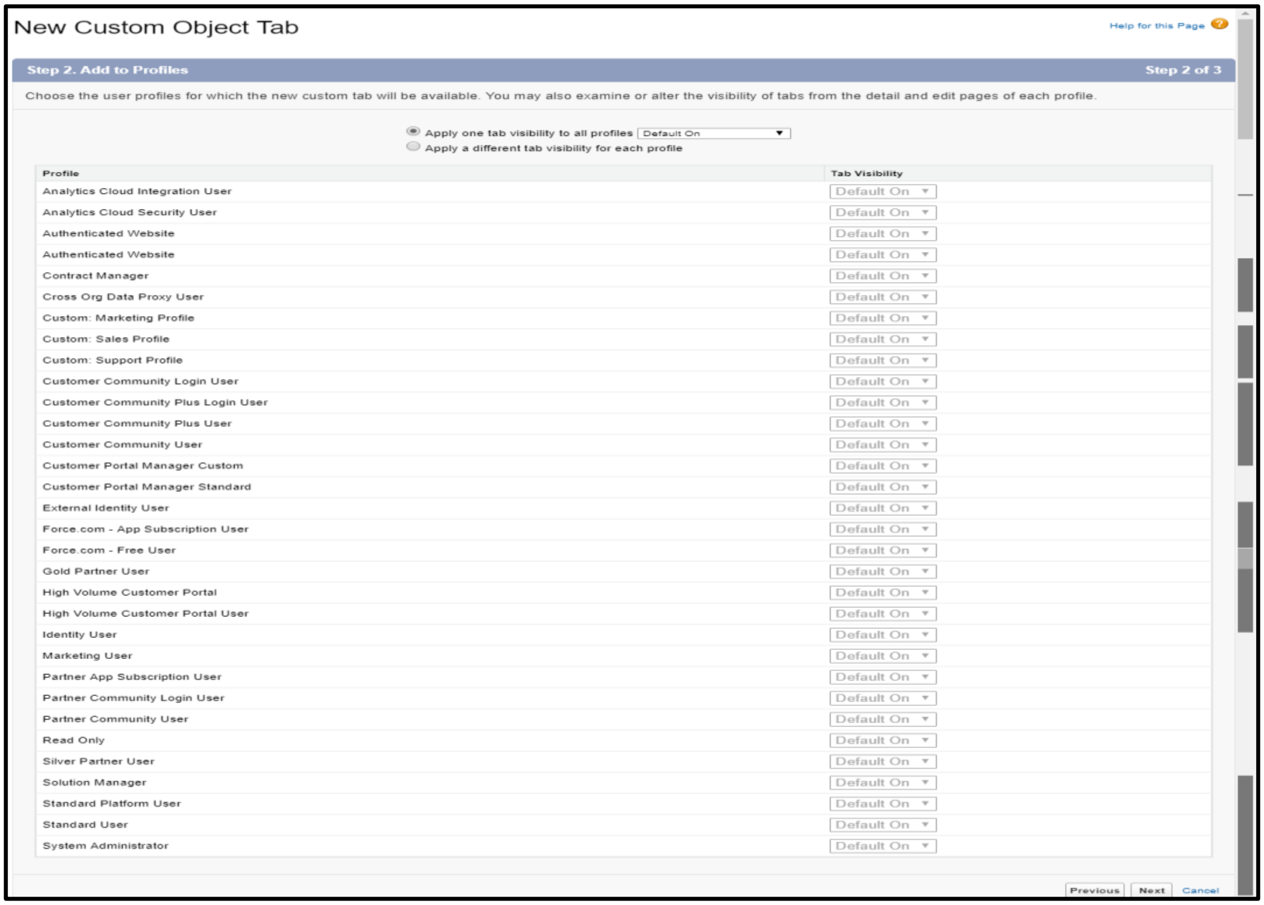

Figure 55: step 2

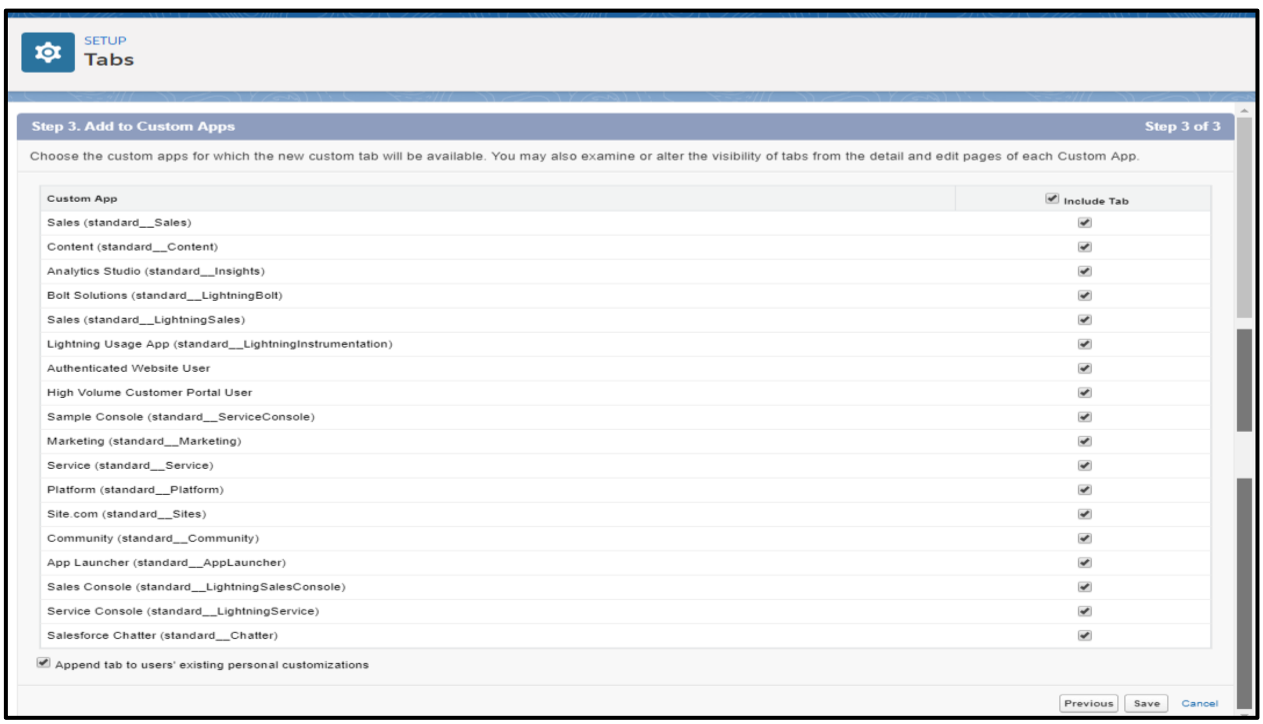

Figure 56: step 3

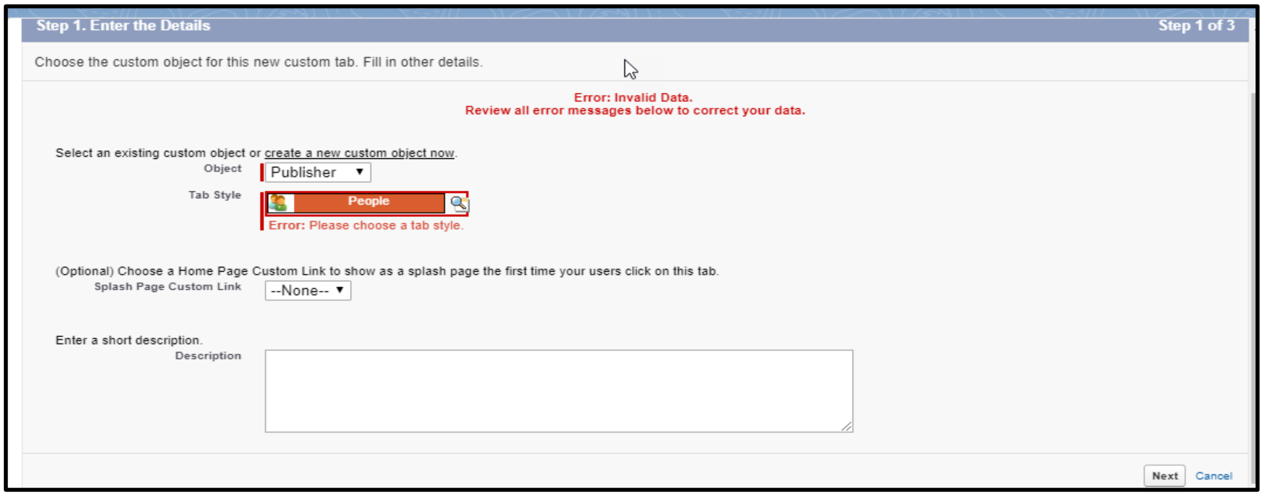

Figure 57: Publisher object tab

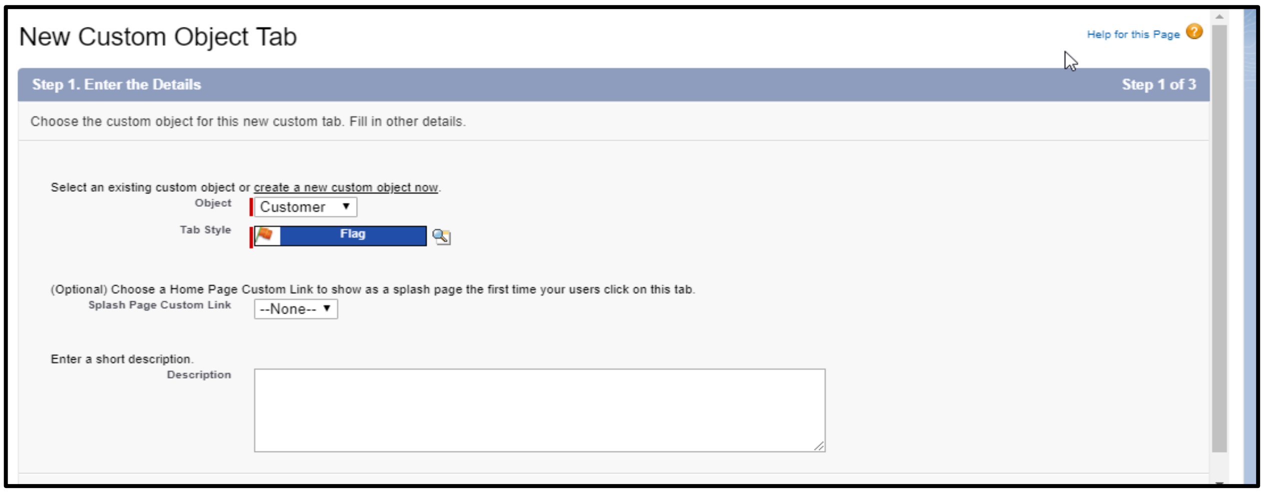

Figure 58: Customer object tab

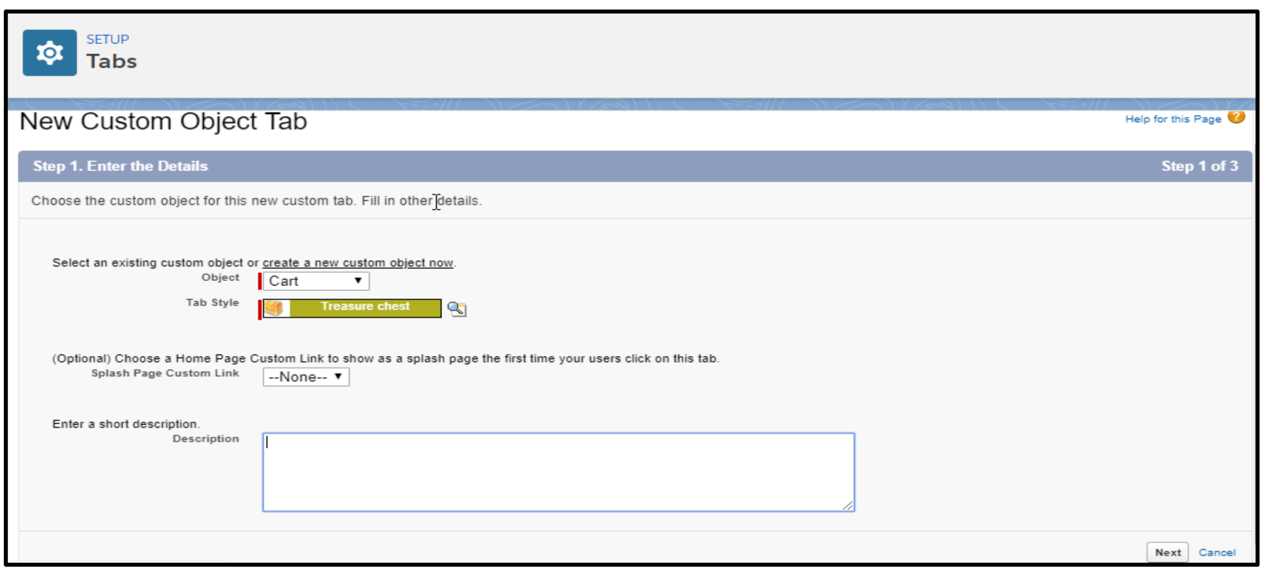

Figure 59: Cart object tab

Figure 60: Invoice object tab

c) Customized Page Layout

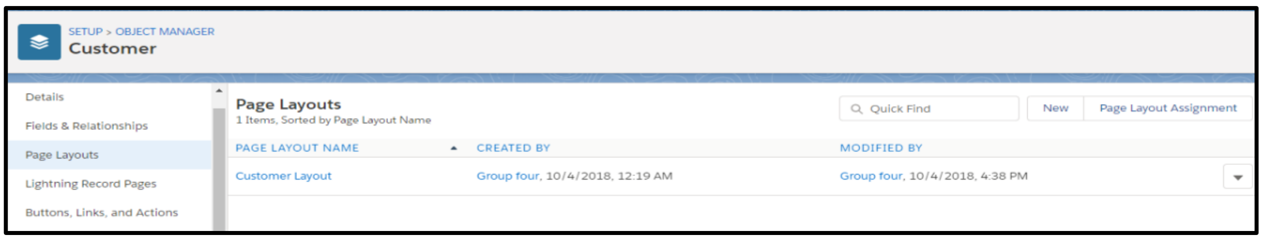

Figure 61: Customer Layout

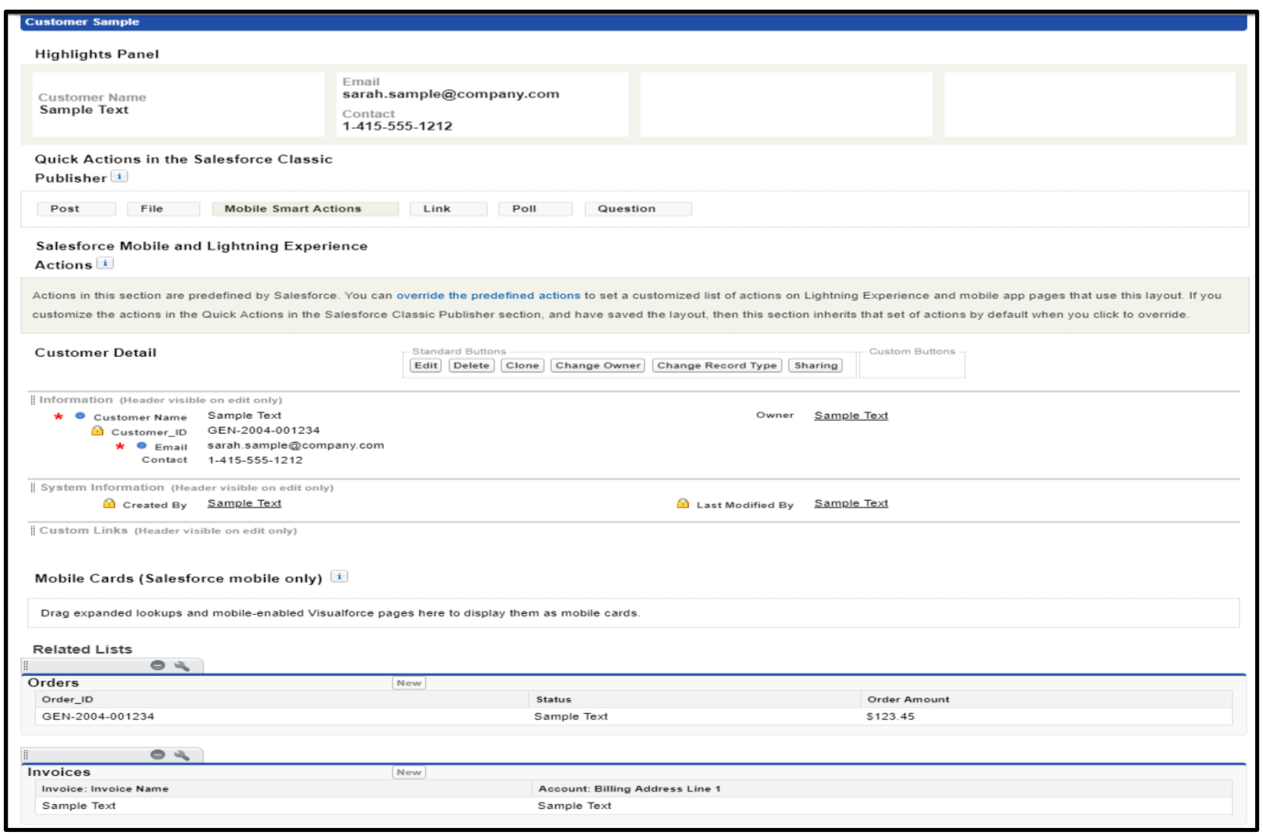

Figure 62: Customer Layout

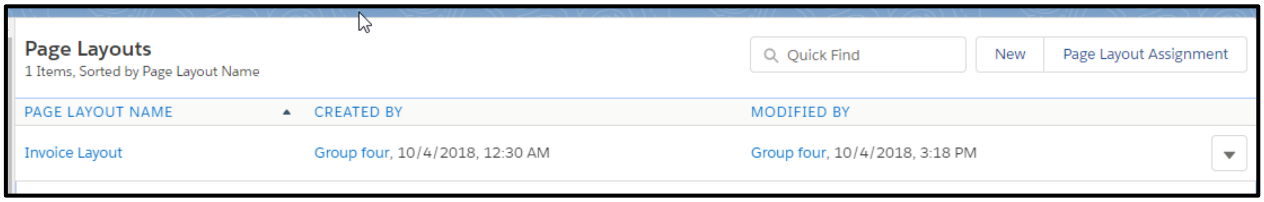

Figure 63: Invoice Layout

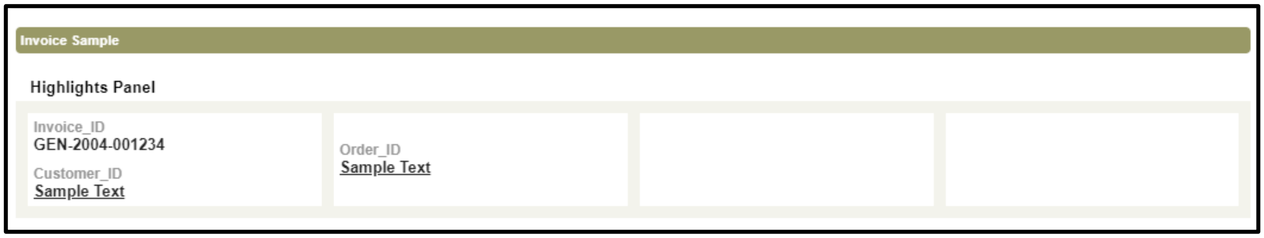

Figure 64: Invoice Layout

d) Data Validation rules

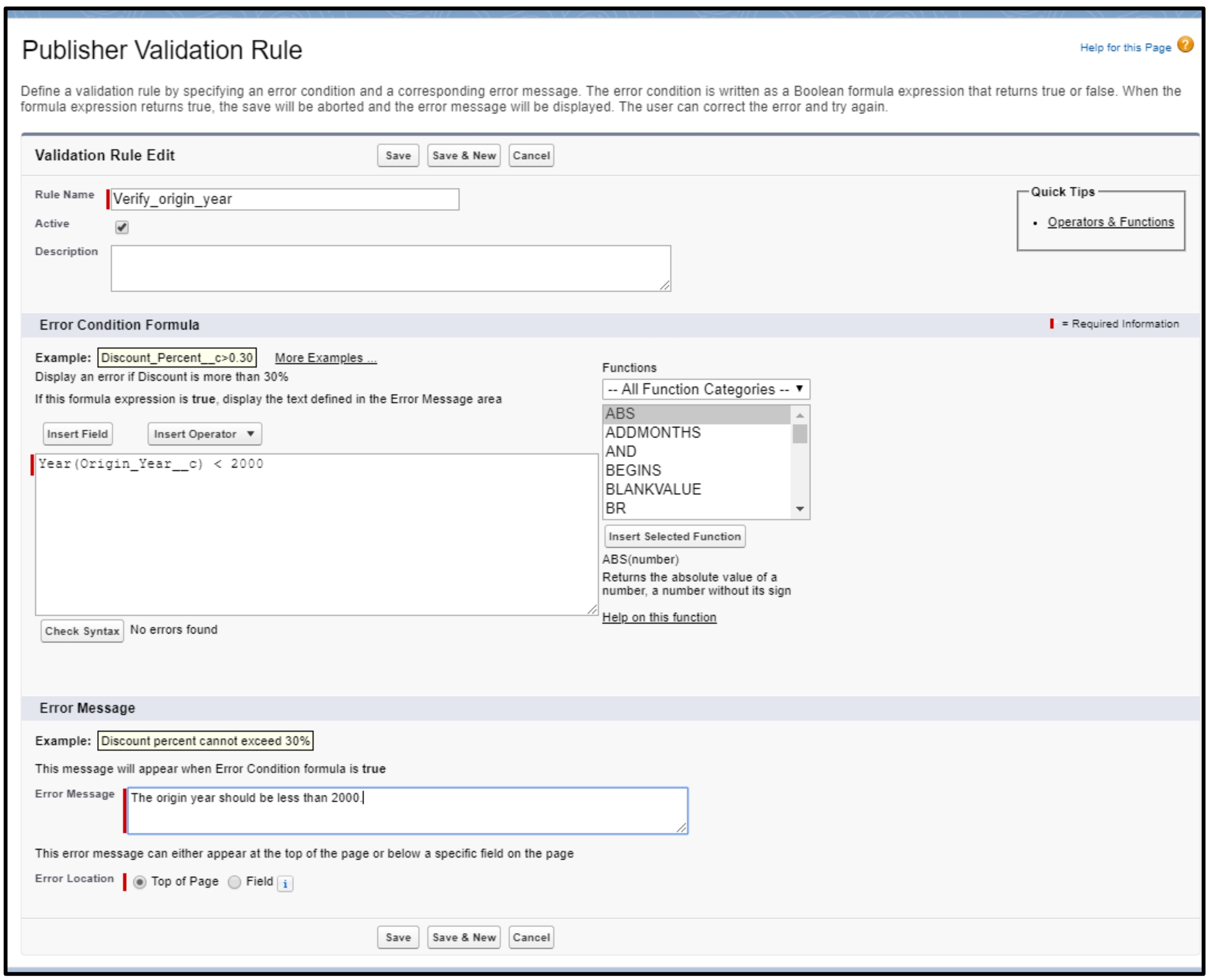

Figure 65: Validation 1

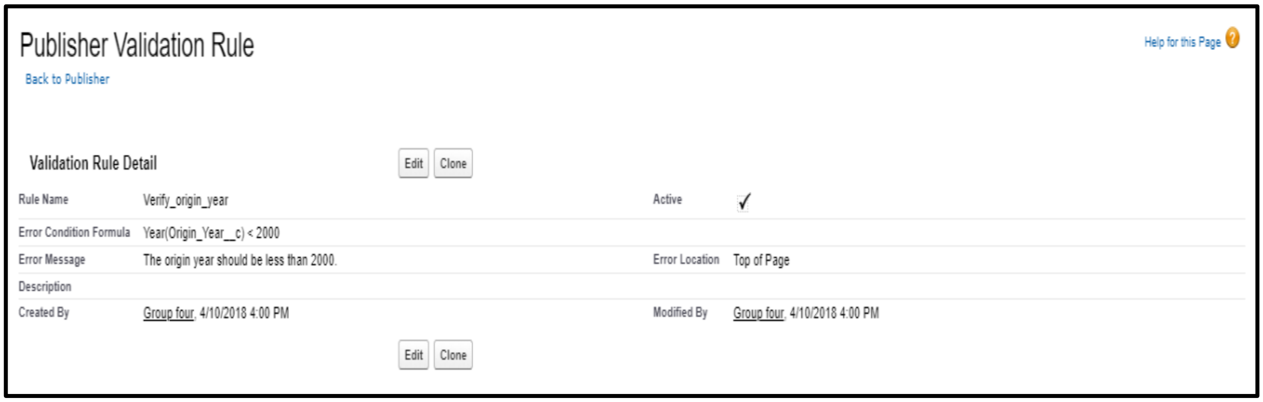

Figure 66: Validation 1

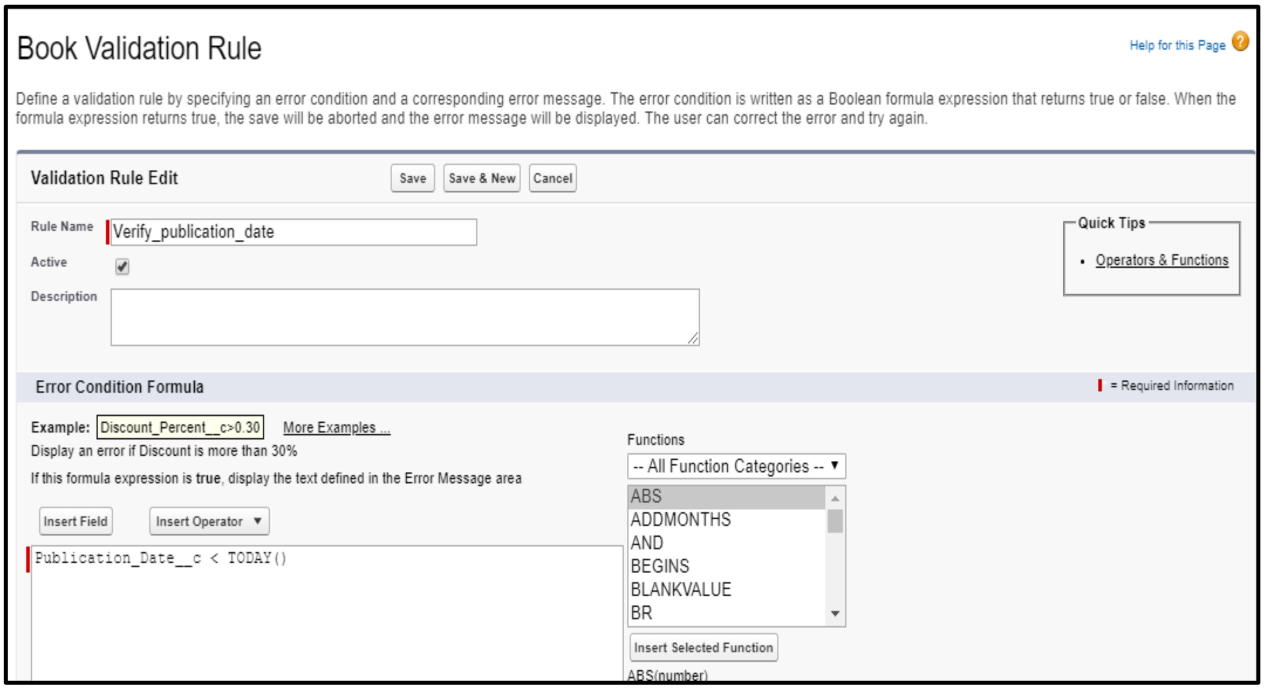

Figure 67: Validation 2

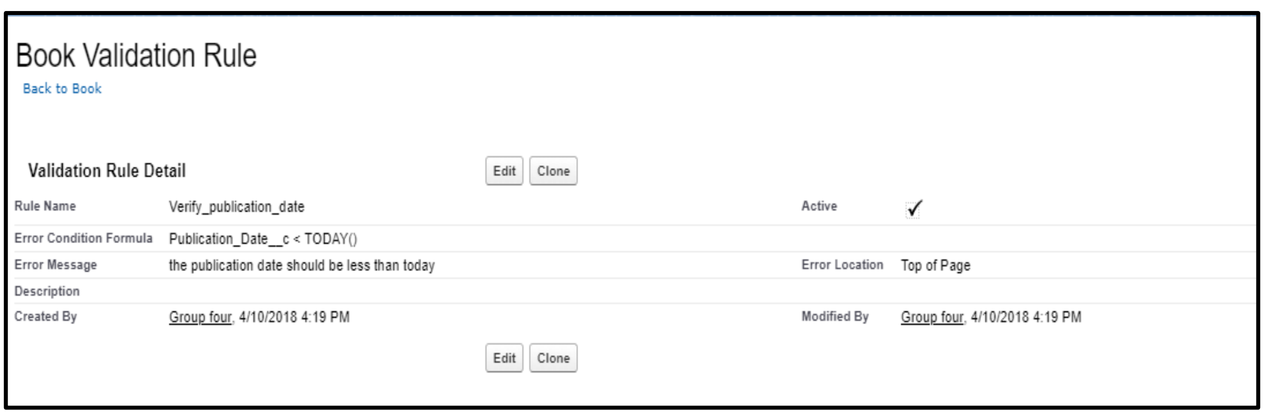

Figure 68: Validation 2

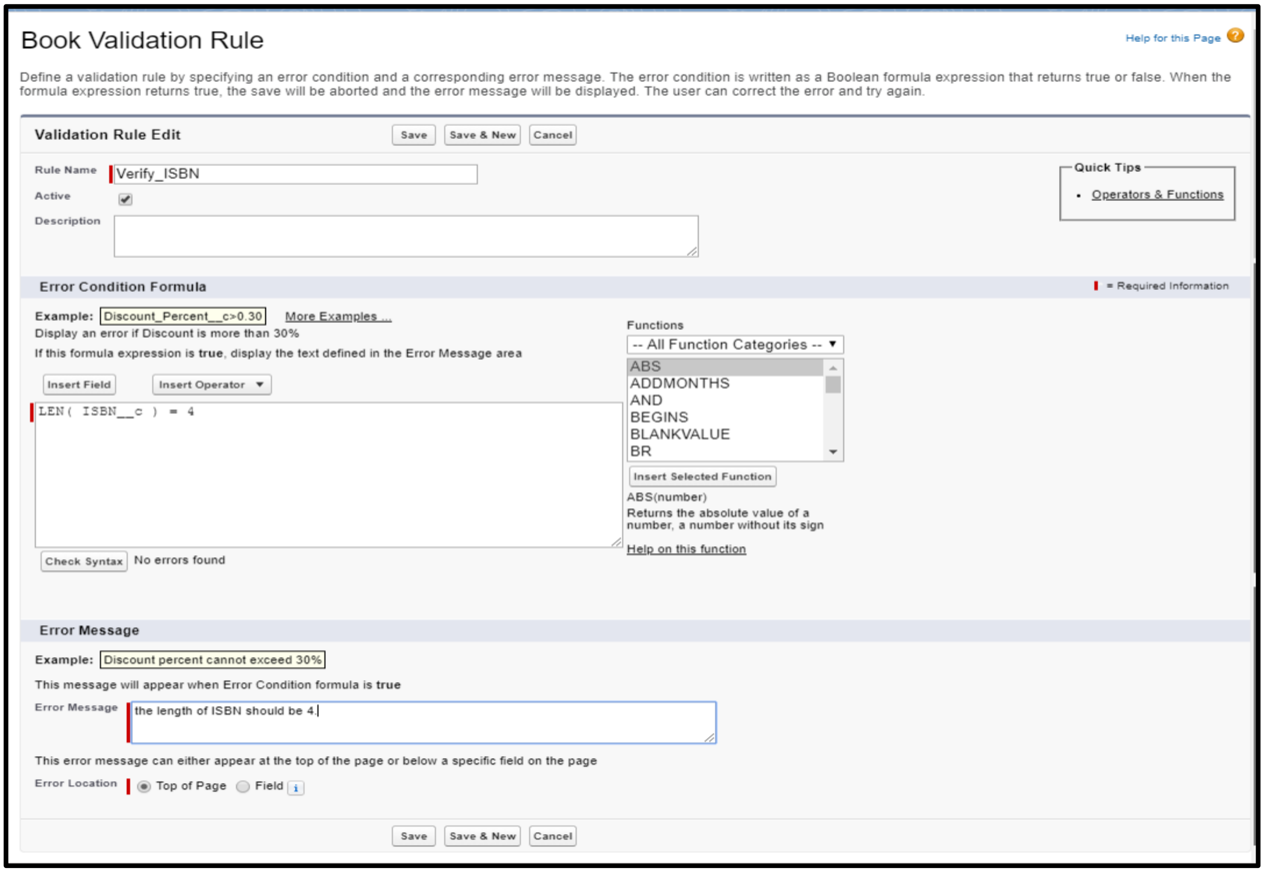

Figure 69: Validation 3

Figure 70: Validation 3

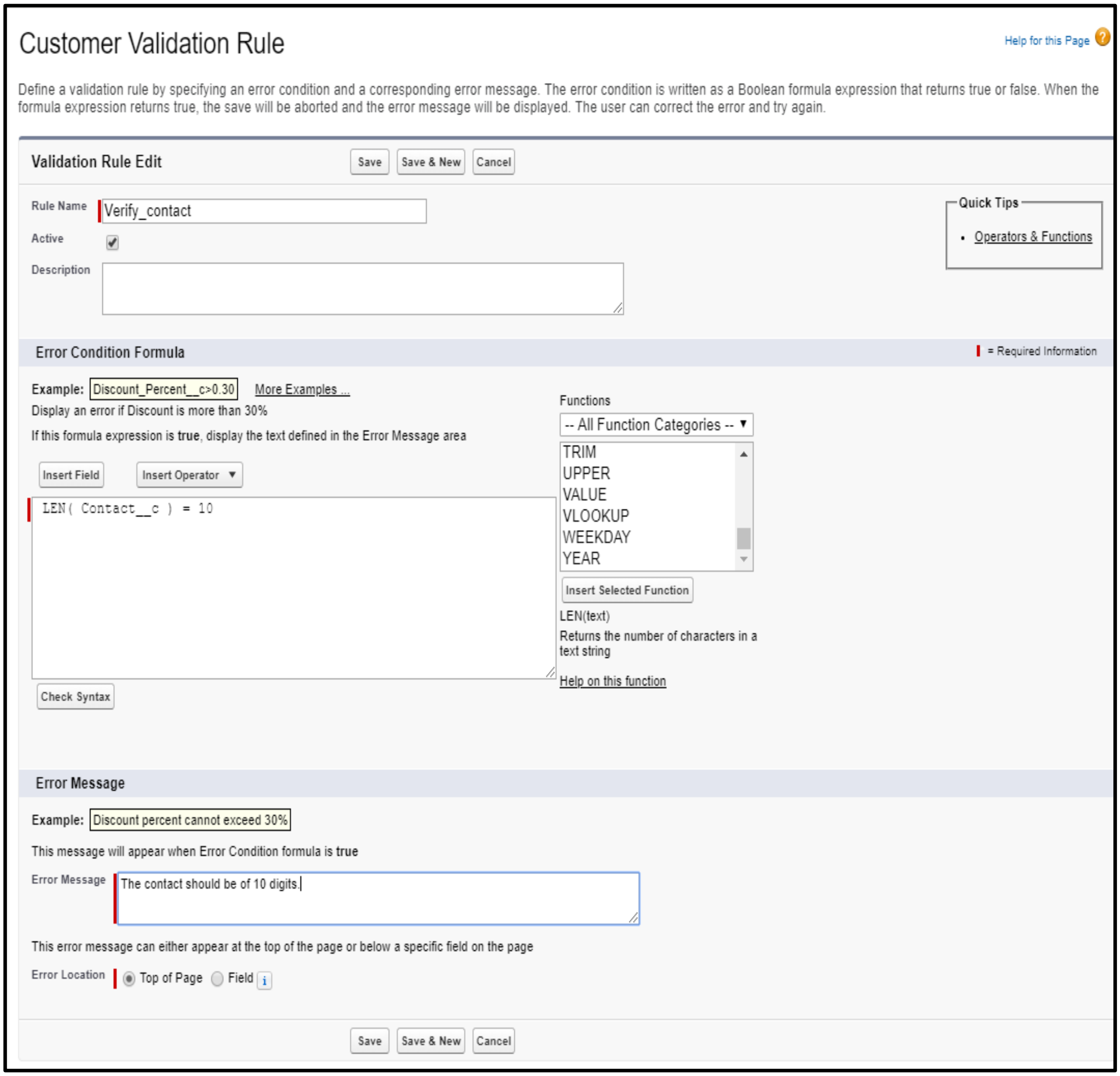

Figure 71: Validation 4

Figure 72: Validation 4

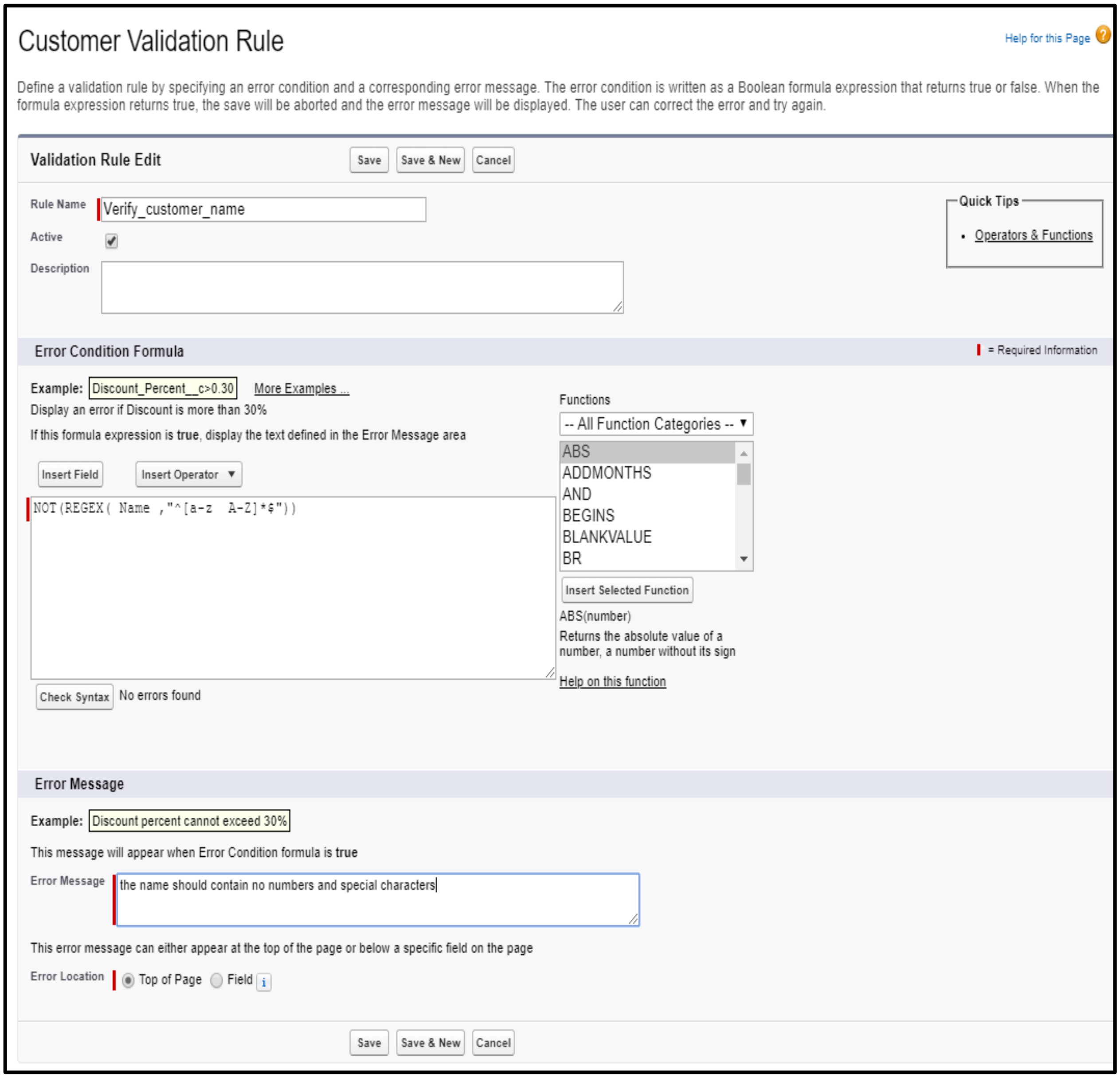

Figure 73: Validation 5

Figure 74: Validation

e) Organization-wide default

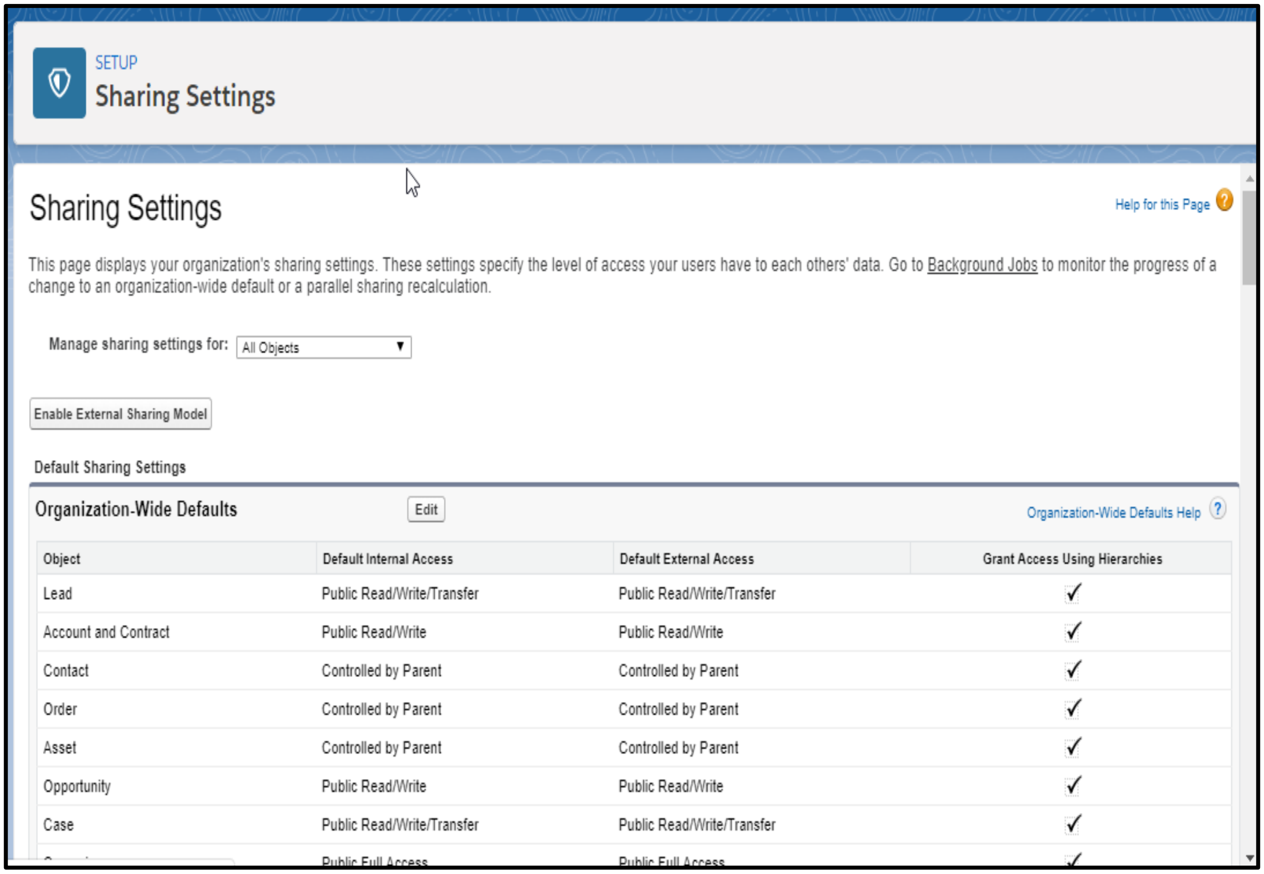

Figure 75: Organization-wide default

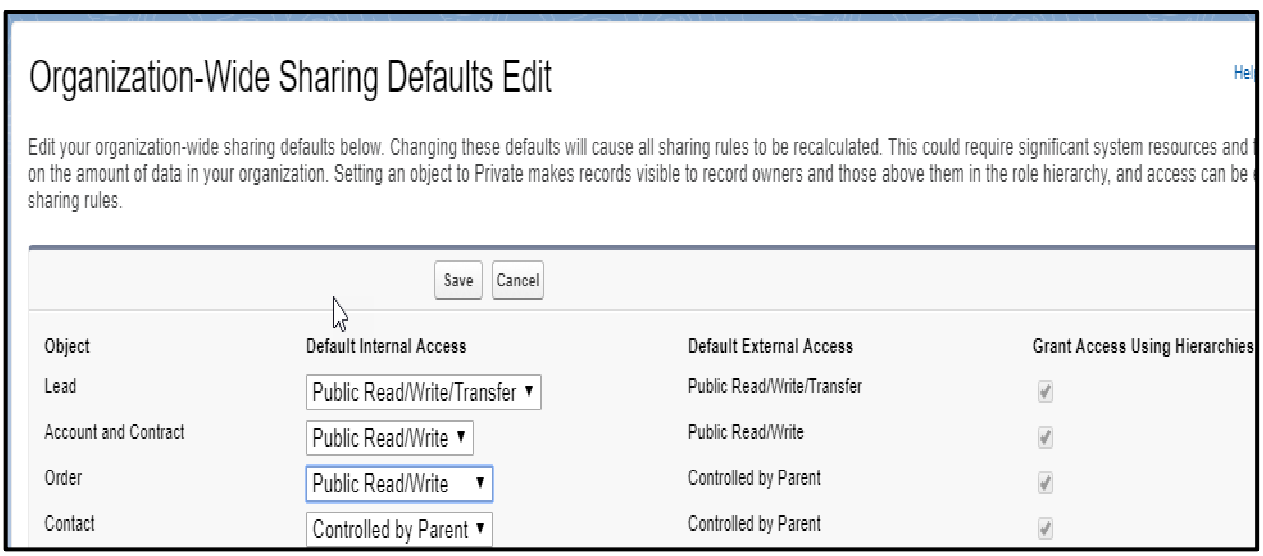

Figure 76: Order settings changed

f) Role hierarchy

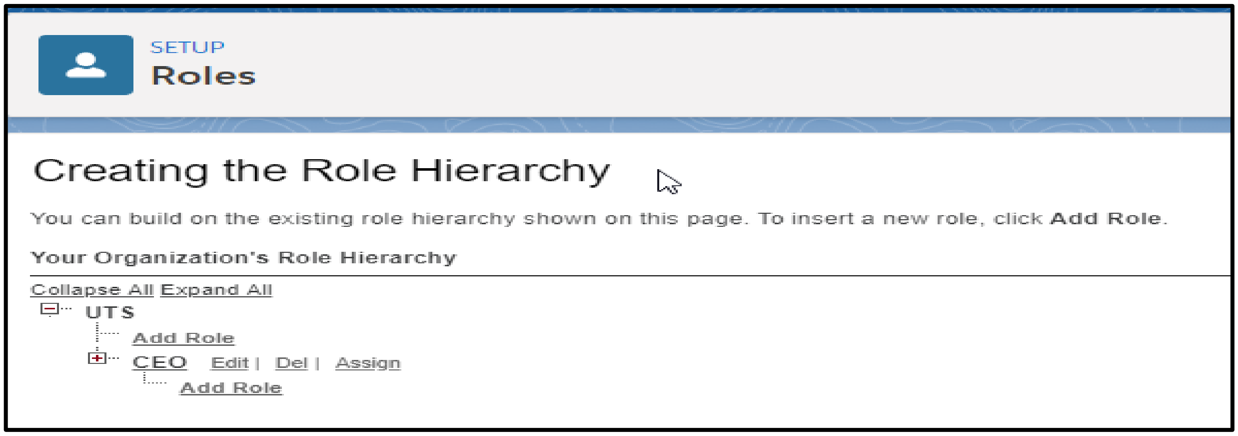

Figure 77: Role hierarchy

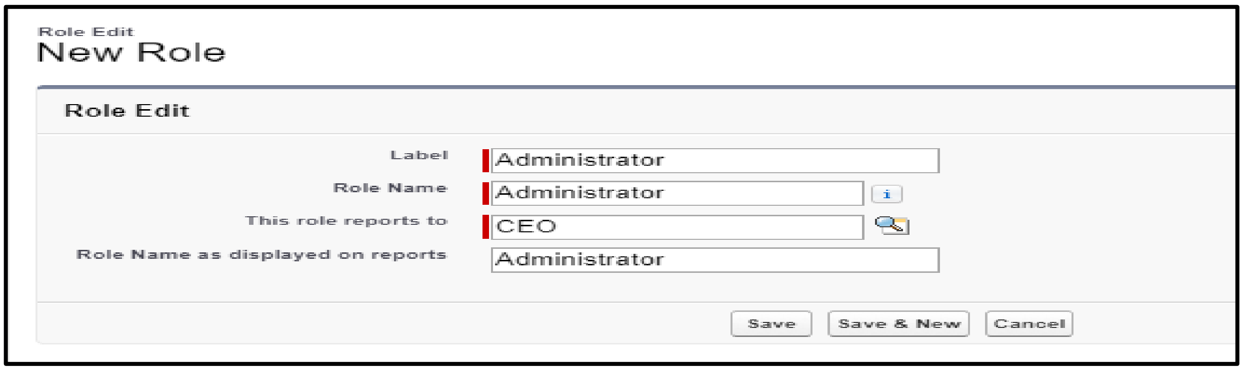

Figure 78: Administrator role

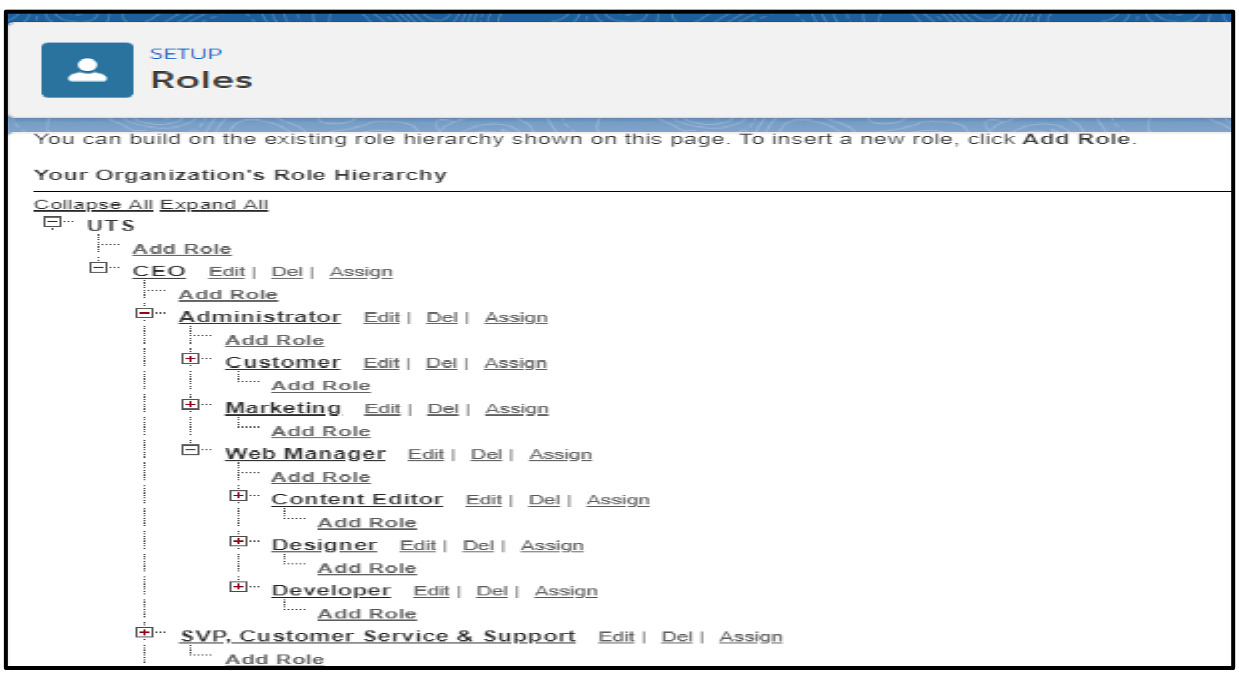

Figure 79: Final Role Hierarchy tree

g) Email Notification

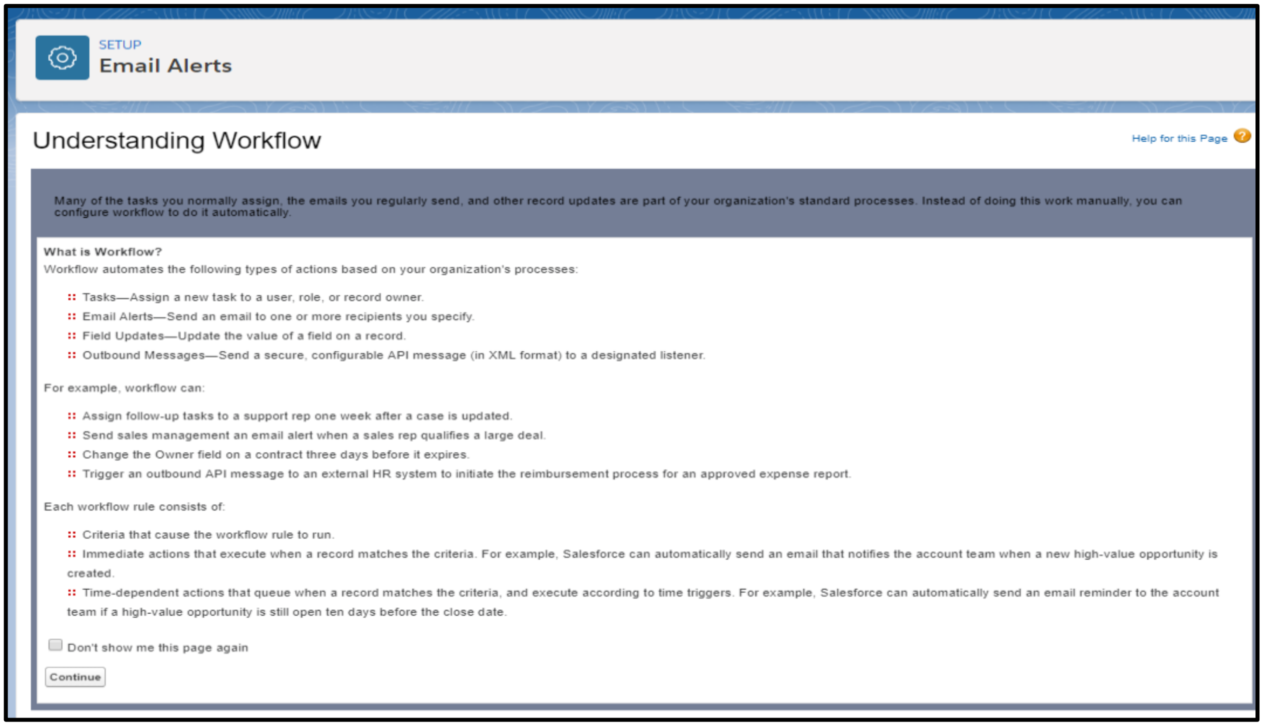

Figure 80: Email alerts area

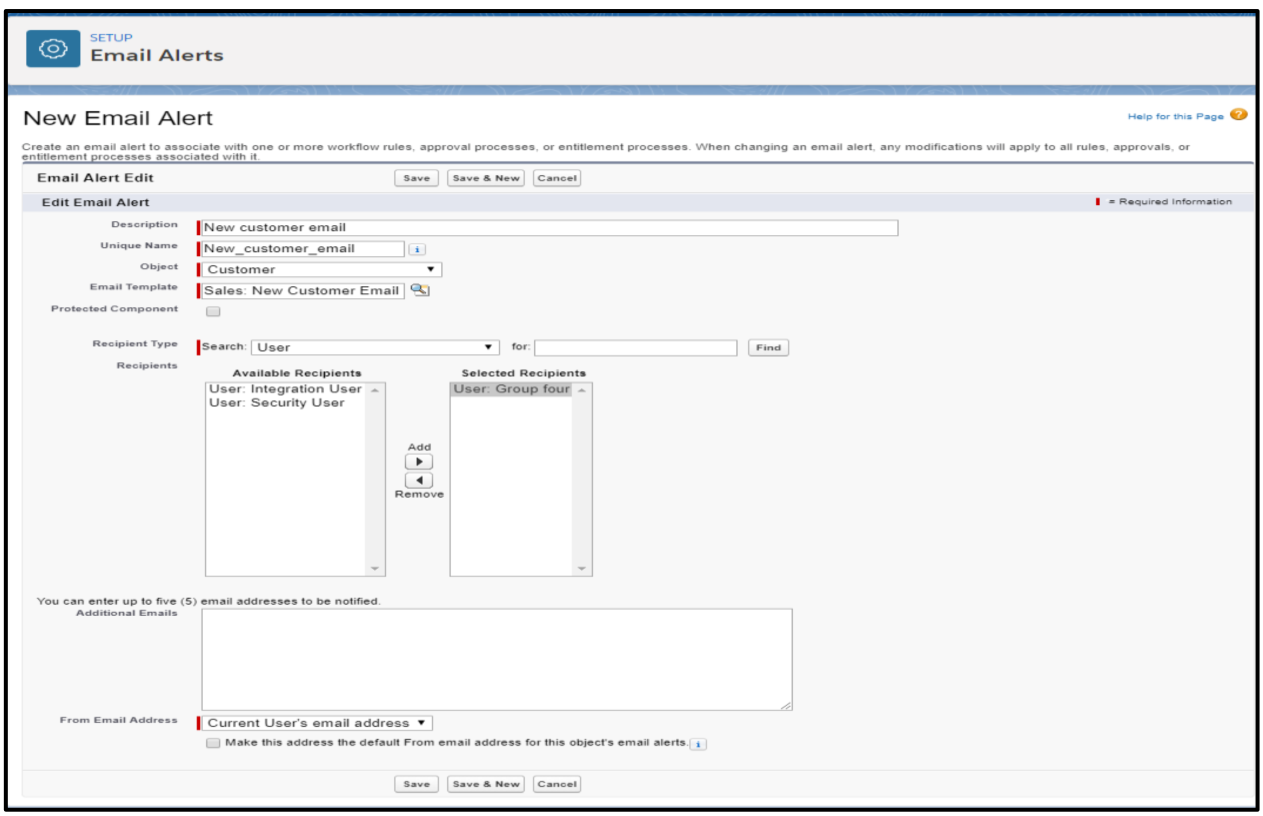

Figure 81: Email alert 1

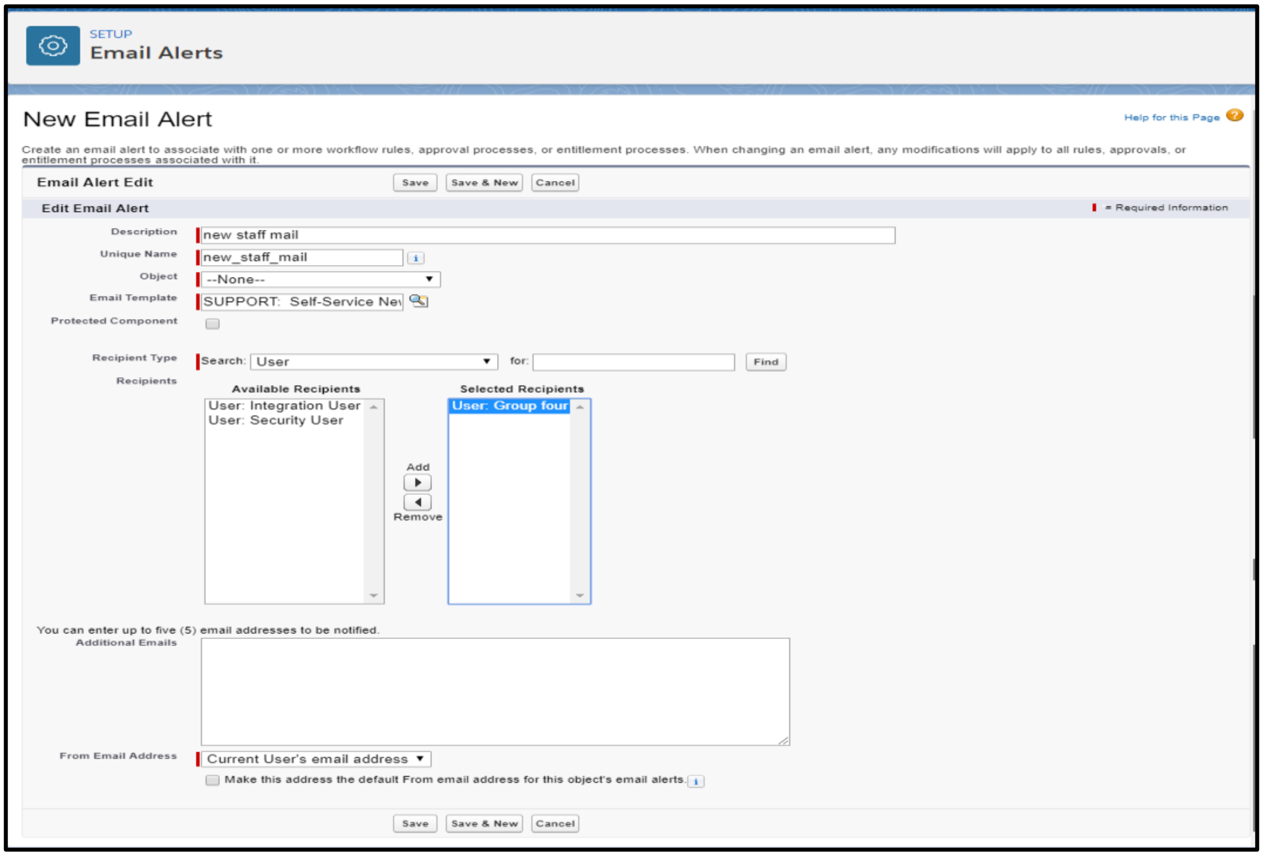

Figure 82: Email alert 2

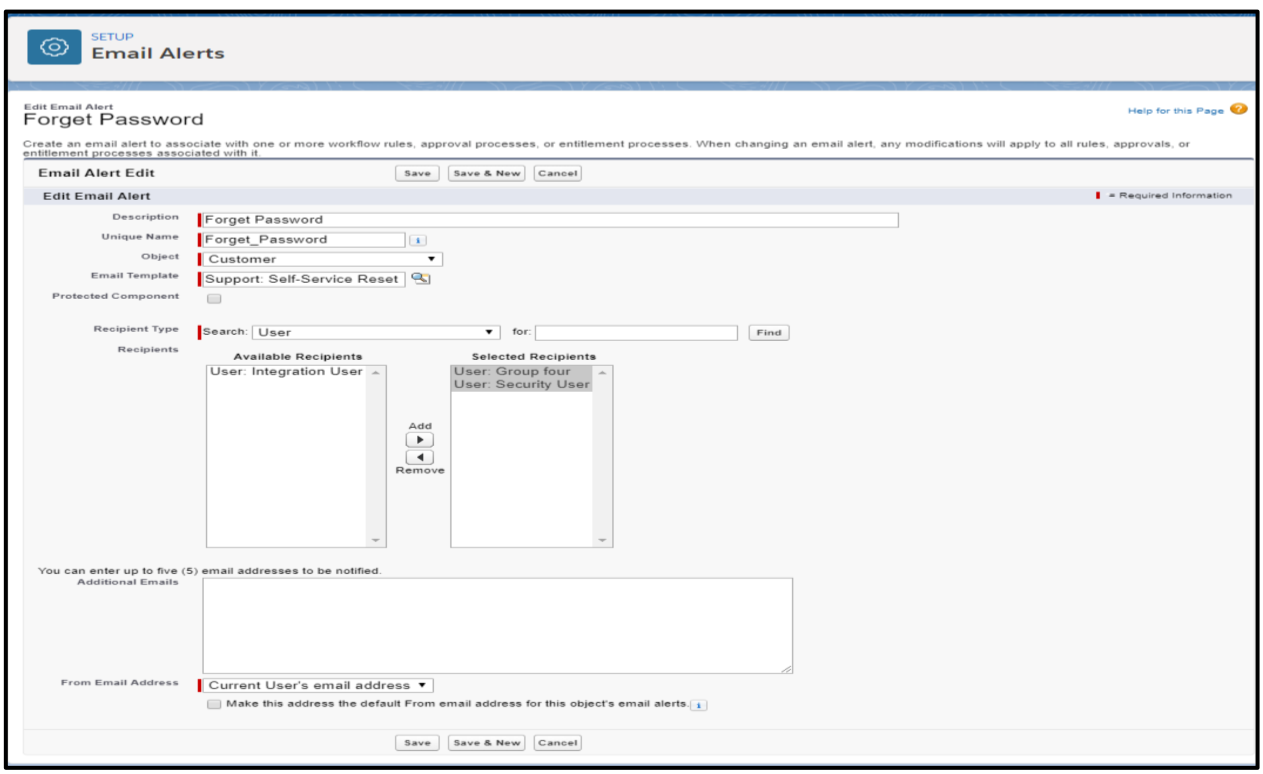

Figure 83: Email alert 3

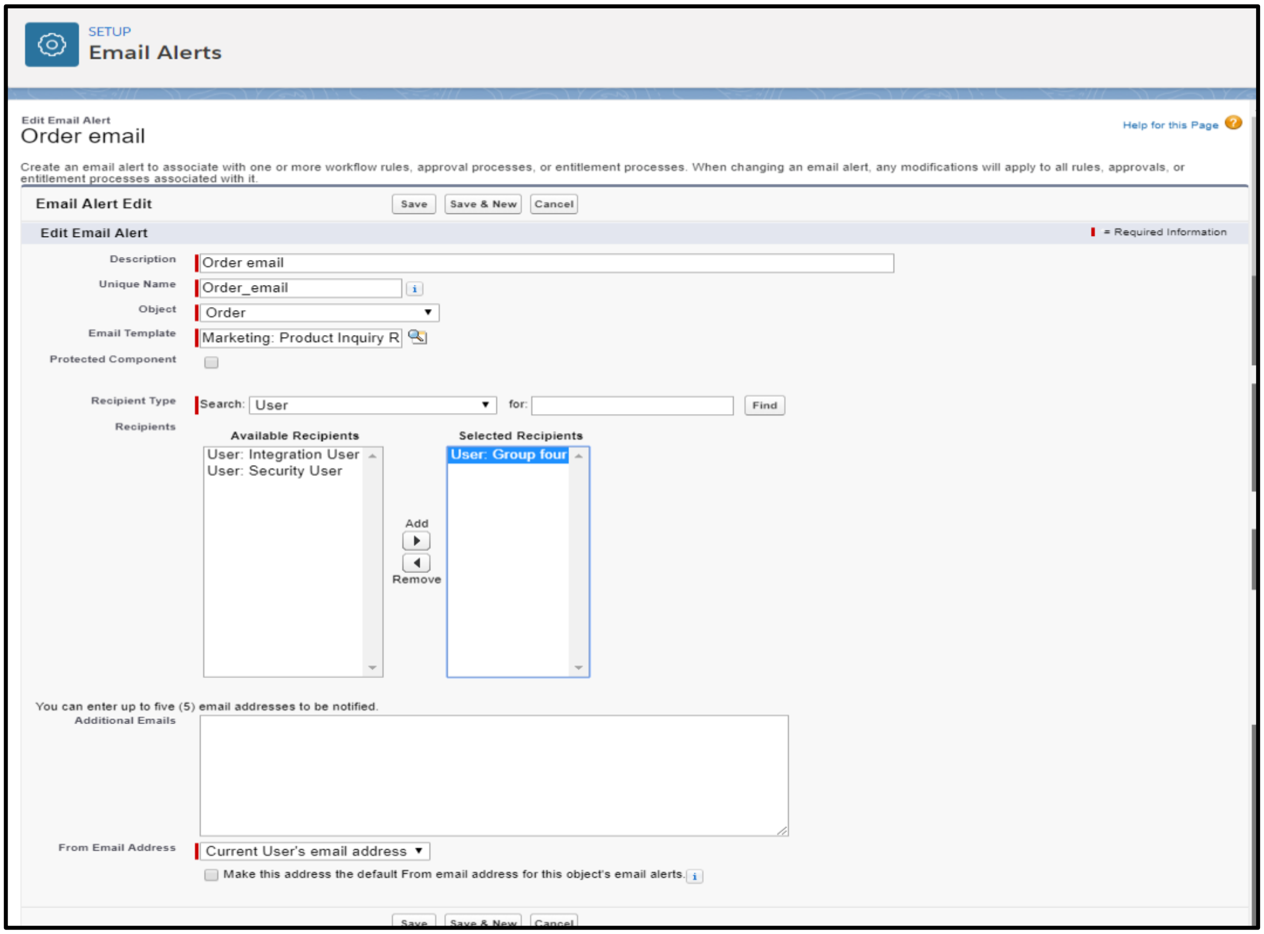

Figure 84: Email alert 4

h) Task creation and assignment

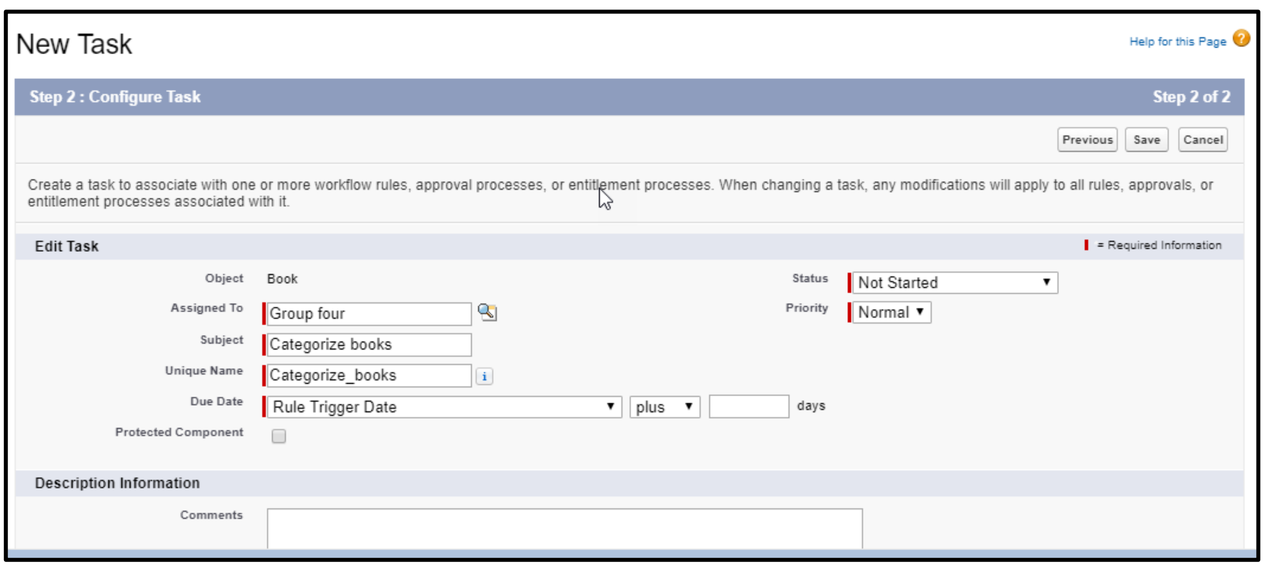

Figure 85: Task created and assigned

i) Time-based workflow

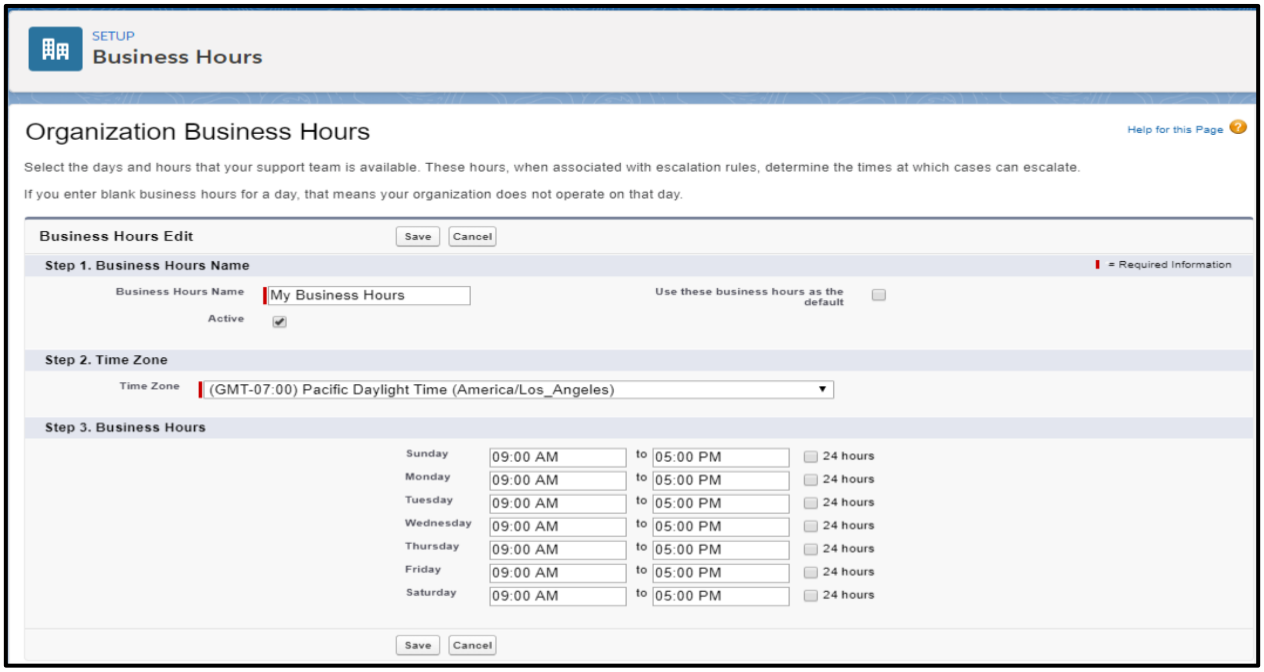

Figure 86: Business hours

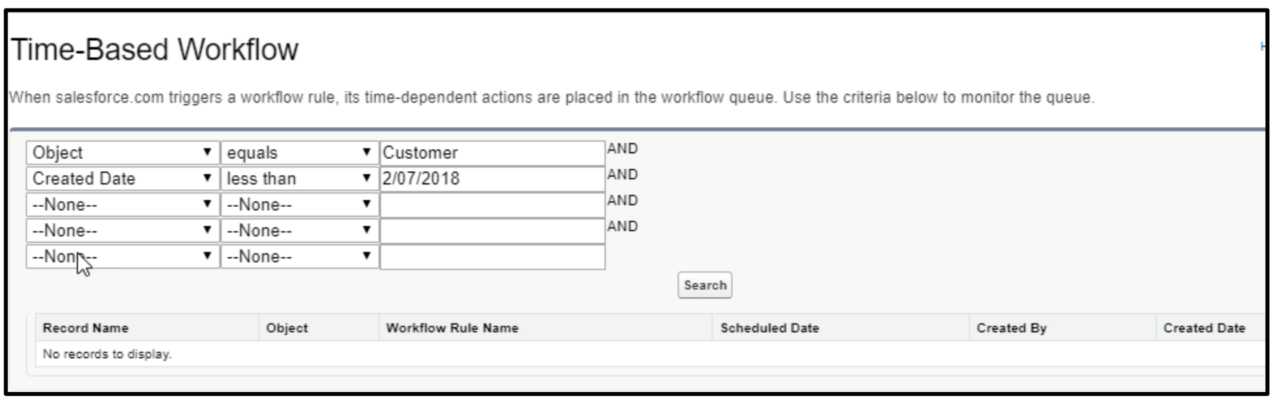

Figure 87: Time-based Workflow 1

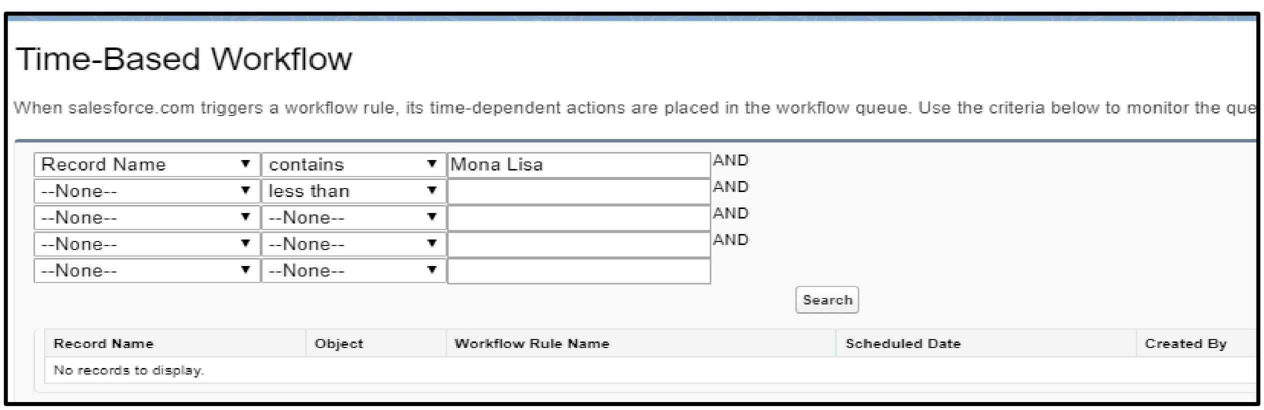

Figure 88: Time-based Workflow 2

j) Profiles that you have created

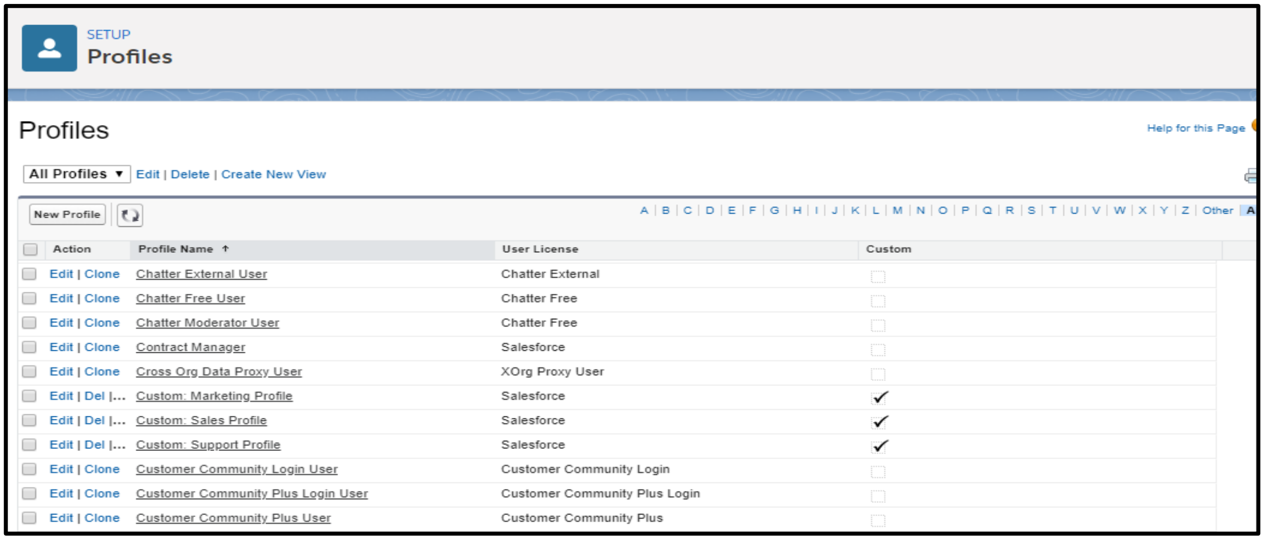

Figure 89: All Profiles

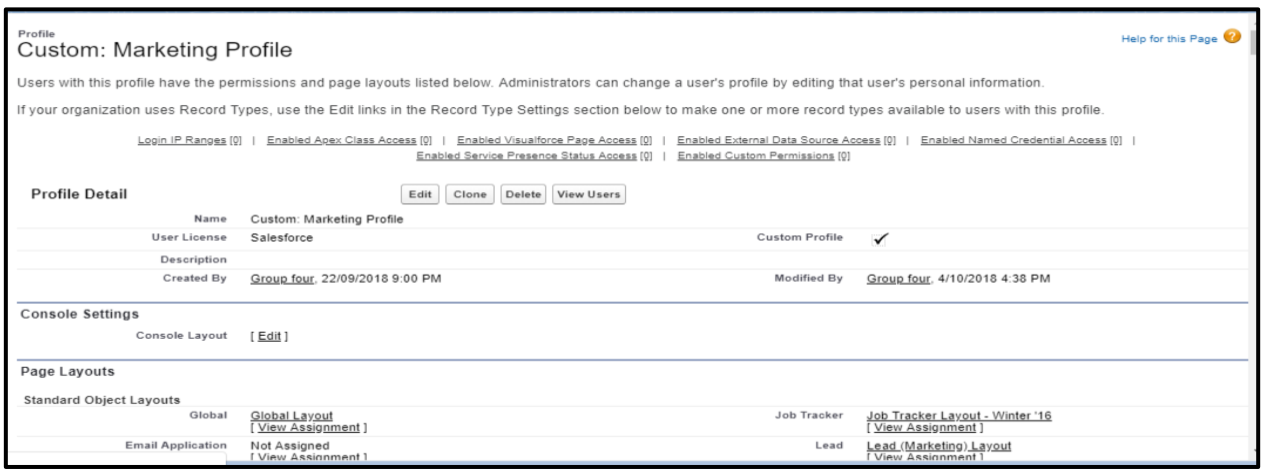

Figure 90: Custom Profile 1

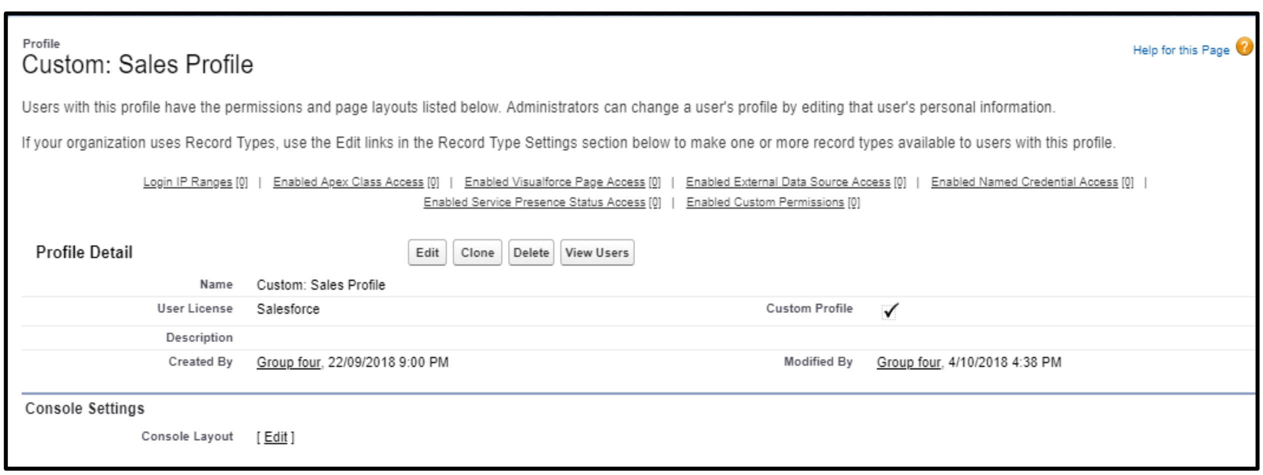

Figure 91: Custom Profile 2

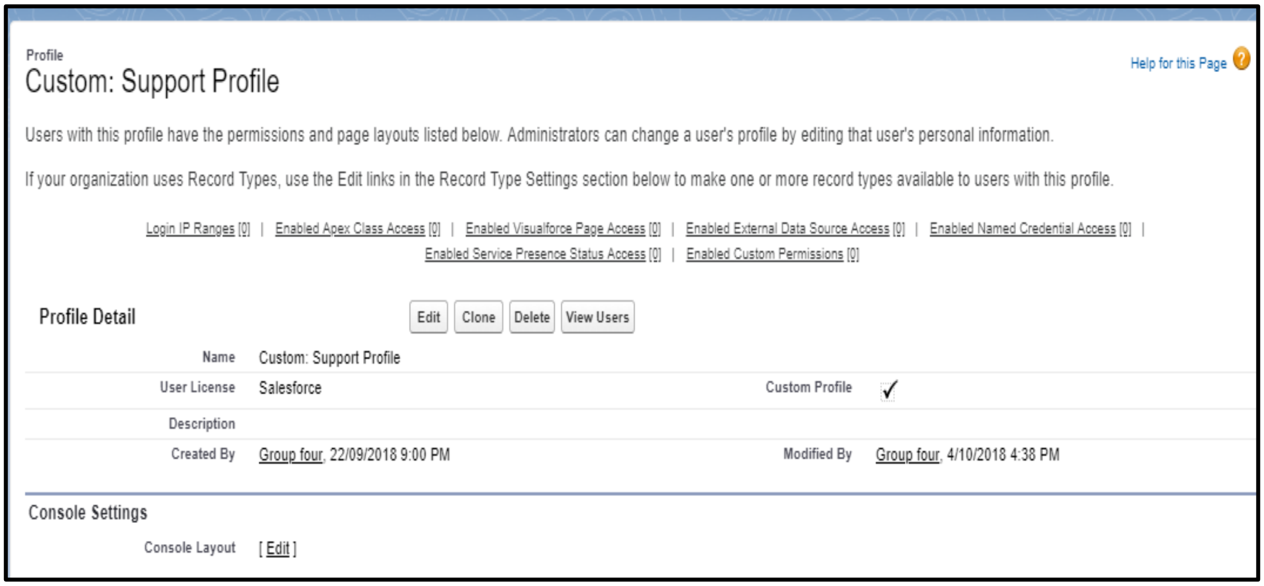

Figure 92: Custom Profile 3

k) <u>Show field-level access control</u>

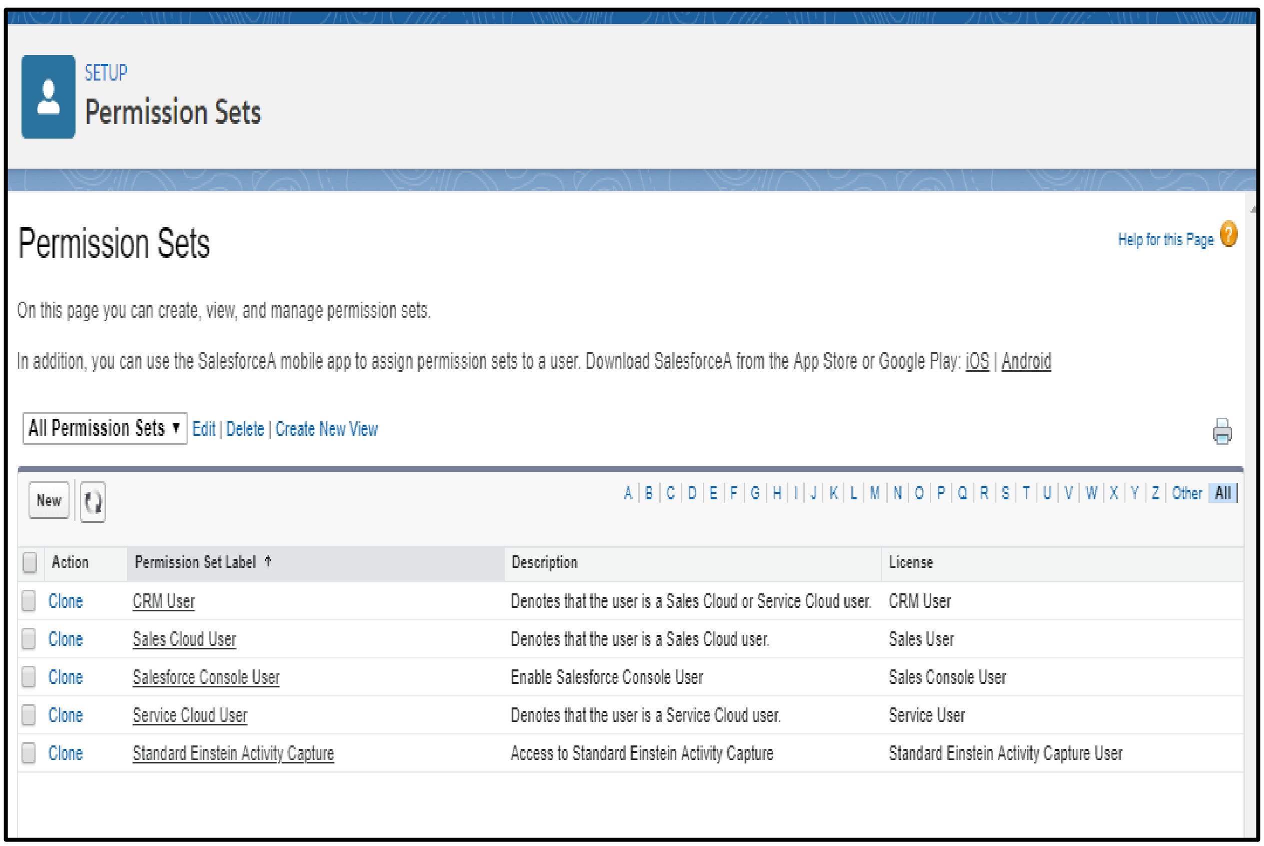

Figure 93: Permission sets

l) Show record-level access control

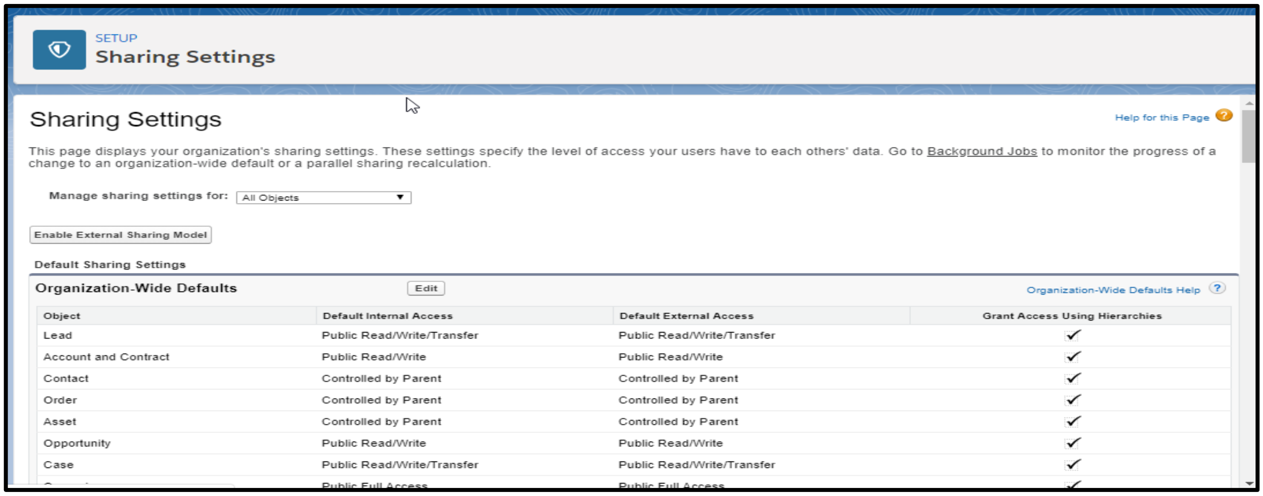

Figure 94: Record level access

Findings and Discussion

Here in this report of 'Customer relationship management' for online book stores we find that CRM strategies are very useful in approaching the customer. These strategies will make sure to complete the needs of consumers on time. So, it is used to interact with the customers. Maintaining and handling consumers is one of most reasons to use CRM strategies. We can handle consumers individually by keeping an eye om their needs by sending them emails. We can take a review system by taking a feedback filled up by customers. Here I find that these CRM strategies are very useful in making a business model very successful. CRM strategies are formed in such a way that they are very approachable to the consumers and helps in finding their needs and supplies. CRM for online bookstore will lead us to a new way of selling the books and new experience for the buyers also.

We also discussed here about the promoting the book online. This promotion can be done on the basis of some recommendation and using all the social media platforms. By using social media platforms like Facebook, Instagram etc. we can create a promotion campaign so that it can widely spread the information about the online bookstore. Other one is recommendation which is just a mouth publicity like talking about the books to our friends, family and relative and other members so that they can at least approach the book. These all things will surely increase the profit percentage of the company.

Conclusion

A book is a bundle of pages that are binded together inside a cover so that we can change pages and go through them one by one. Here, their main aim is to identify the main factors which are influencing the purchase of fiction books. And we will test these factors when the book is purchased for personal use or gift purpose. Fiction books are the most readable books in most of the countries. Customer relationship management helps in incrementing the operational performance. Also increases the efficiency and profit percentage for the firm. Customer relationship management is helpful for both the types of firms whether it is a small firm or a big firm. In these both the firms. Customer relationship management strategies interact with the customer and take their feedback. So, customer relationship management strategies play a very important role in selling books from the store. Customer relationship management also give monthly statements for the company. Customer relationship management helps in collecting the personal data of the consumers for future promotion of their products.

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