Sinhgad Institute of Technology & Science, Narhe Pune

LAB MANUAL

Lab Practice II

(Cloud Computing)

Semester-VI

Department of Computer Engineering

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Assignment No.1

Title: Amazon EC2

Problem Statem: Case study on Amazon EC2 to learn about Amazon EC2

Objective:
1. To acquire knowledge of Web Services.
2. To acquire knowledge of storage & virtual cloud options.
3. To study AWS Load Balancing Service

Theory:

Applications using cloud computing are gaining popularity day by day for their high availability, reliability and utility service model. Today many cloud providers are in the IT market. Of those Google App-Engine, Windows Azure and Amazon EC2, S3 are prominent ones for their popularity and technical perspective.

1.1 Amazon Web Services

In 2006, Amazon Web Services (AWS) started to offer IT services to the market in the form of web services, which is nowadays known as cloud computing. With this cloud, we need not plan for servers and other IT infrastructure which takes up much of time in advance. Instead, these services can instantly spin up hundreds or thousands of servers in minutes and deliver results faster. We pay only for what we use with no up-front expenses and no long-term commitments, which makes AWS cost efficient.

Today, AWS provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers multitude of businesses in 190 countries around the world.

Amazon Elastic Compute Cloud (EC2): Amazon Elastic Compute Cloud delivers scalable, pay-as-you-go compute capacity in the cloud.

Amazon Simple Storage Service (S3): Amazon Simple Storage Service provides a fully redundant data storage infrastructure for storing and retrieving any amount of data, at any time, from anywhere on the Web.

Amazon Relational Database Service (RDS): Amazon Relational Database Service is a web service that makes it easy to set up, operate, and scale a relational database in the cloud.

Amazon SimpleDB : Amazon SimpleDB works in conjunction with Amazon S3 and AmazonEC2 to run queries on structured data in real time.

Amazon Elastic MapReduce: Amazon Elastic MapReduce is a web service that enables businesses, researchers, data analysts, and developers to easily and cost-effectively process vast amounts of data.

Amazon CloudFront: Amazon CloudFront is a web service that makes it easy to distribute content with low latency via a global network of edge locations.

Amazon Simple Queue Service (SQS): Amazon Simple Queue Service provides a hosted queue for storing messages as they travel between computers, making it easy to build automated workflow between Web services.

Amazon Flexible Payments Service (FPS): Amazon Flexible Payments Service facilitates the digital transfer of money between any two entities, humans or computers.

Amazon Mechanical Turk: Amazon Mechanical Turk enables companies to access thousands of global workers on demand and programmatically integrate their work into various business processes.

Amazon Cloud Watch: Amazon CloudWatch is a web service that provides monitoring for AWS cloud resources, starting with Amazon EC2

1.2 Amazon Elastic Compute Cloud

Amazon EC2 (Elastic Compute Cloud) is a web service interface that provides resizable compute capacity in the AWS cloud. It is designed for developers to have complete control over web-scaling and computing resources.

EC2 instances can be resized and the number of instances scaled up or down as per our requirement. These instances can be launched in one or more geographical locations or regions, and Availability Zones (AZs). Each region comprises of several AZs at distinct locations, connected by low latency networks in the same region.

1.2.1 EC2 Components

In AWS EC2, the users must be aware about the EC2 components, their operating systems support, security measures, pricing structures, etc.

Operating System Support:

Amazon EC2 supports multiple OS in which we need to pay additional licensing fees like: Red Hat Enterprise, SUSE Enterprise and Oracle Enterprise Linux, UNIX, Windows Server, etc. These OS needs to be implemented in conjunction with Amazon Virtual Private Cloud (VPC).

Security

Users have complete control over the visibility of their AWS account. In AWS EC2, the security systems allow create groups and place running instances into it as per the requirement. You can specify the groups with which other groups may communicate, as well as the groups with which IP subnets on the Internet may talk.

Pricing

AWS offers a variety of pricing options, depending on the type of resources, types of applications and database. It allows the users to configure their resources and compute the charges accordingly.

Fault tolerance

Amazon EC2 allows the users to access its resources to design fault-tolerant applications. EC2 also comprises geographic regions and isolated locations known as availability zones for fault tolerance and stability. It doesn't share the exact locations of regional data centers for security reasons.

When the users launch an instance, they must select an AMI that's in the same region where the instance will run. Instances are distributed across multiple availability zones to provide continuous services in failures, and Elastic IP (EIPs) addresses are used to quickly map failed instance addresses to concurrent running instances in other zones to avoid delay in services.

Migration

This service allows the users to move existing applications into EC2. It costs $80.00 per storage device and $2.49 per hour for data loading. This service suits those users having large amount of data to move.

1.1.1 Features of EC2

Here is a list of some of the prominent features of EC2 −

Reliable − Amazon EC2 offers a highly reliable environment where replacement of instances is rapidly possible. Service Level Agreement commitment is 99.9% availability for each Amazon EC2 region.

Designed for Amazon Web Services − Amazon EC2 works fine with Amazon services like Amazon S3, Amazon RDS, Amazon DynamoDB, and Amazon SQS. It provides a complete solution for computing, query processing, and storage across a wide range of applications.

Secure − Amazon EC2 works in Amazon Virtual Private Cloud to provide a secure and robust network to resources.

Flexible Tools − Amazon EC2 provides the tools for developers and system administrators to build failure applications and isolate themselves from common failure situations.

Inexpensive − Amazon EC2 wants us to pay only for the resources that we use. It includes multiple purchase plans such as On-Demand Instances, Reserved Instances, Spot Instances, etc. which we can choose as per our requirement.

1.1.2 How to Use AWS EC2

Step 1 − Sign-in to AWS account and open IAM console by using the following

link https://console.aws.amazon.com/iam/.

Step 2 − In the navigation Panel, create/view groups and follow the instructions.

Step 3 − Create IAM user. Choose users in the navigation pane. Then create new users and

add users to the groups.

Step 4 − Create a Virtual Private Cloud using the following instructions.

Open the Amazon VPC console by using the following link − https://console.aws.amazon.com/vpc/

Select VPC from the navigation panel. Then select the same region in which we have created key-pair.

Select start VPC wizard on VPC dashboard.

Select VPC configuration page and make sure that VPC with single subnet is selected. The choose Select.

VPC with a single public subnet page will open. Enter the VPC name in the name field and leave other configurations as default.

Select create VPC, then select Ok.

Step 5 − Create WebServerSG security groups and add rules using the following instructions.

On the VPC console, select Security groups in the navigation panel.

Select create security group and fill the required details like group name, name tag, etc.

Select your VPC ID from the menu. Then select yes, create button.

Now a group is created. Select the edit option in the inbound rules tab to create rules.

Step 6 − Launch EC2 instance into VPC using the following instructions.

Open EC2 console by using the following link − https://console.aws.amazon.com/ec2/

Select launch instance option in the dashboard.

A new page will open. Choose Instance Type and provide the configuration. Then select Next: Configure Instance Details.

A new page will open. Select VPC from the network list. Select subnet from the subnet list and leave the other settings as default.

Click Next until the Tag Instances page appears.

Step 7 − On the Tag Instances page, provide a tag with a name to the instances. Select Next:

Configure Security Group.

Step 8 − On the Configure Security Group page, choose the Select an existing security group

option. Select the WebServerSG group that we created previously, and then choose

Review and Launch.

Step 9 − Check Instance details on Review Instance Launch page then click the Launch

button.

Step 10 − A pop up dialog box will open. Select an existing key pair or create a new key pair.

Then select the acknowledgement check box and click the Launch Instances button.

Conclusion: Thus we have studied that Amazon Elastic Compute Cloud(EC2) is a central part of Amazon.com's cloud computing platform, Amazon Web Services & How EC2 allows userstorrent virtual computers on which to run their own computer applications

Assignment No.2

Title: Google App Engine

Problem Statement: Installation and Configuration Google App Engine

Theory:

Google App Engine: Google App Engine (often referred to as GAE or simply App Engine) is a cloud computing platform as a service for developing and hosting web applications in Google-managed data centers

Google App Engine (often referred to as GAE or simply App Engine) is a cloud computing platform as a service for developing and hosting web applications in Google-managed data centers. Applications are sandboxed and run across multiple servers. App Engine offers automatic scaling for web applications-as the number of requests increases for an application, App Engine automatically allocates more resources for the web application to handle the additional demand.

Google App Engine primarily supports Go, PHP, Java, Python, Node.js, .NET, and Ruby applications, although it can also support other languages via "custom runtimes". The service is free up to a certain level of consumed resources and only in standard environment but not in flexible environment

Installation of Google App Engine:

1. Click the Google Cloud Platform toolbar button .
2. Select Create New Project > Google App Engine Flexible Java Project.
3. Enter a Project name for your application.
4. If you want, enter values for the optional fields.
5. Click Next.
6. Select any libraries you need in the project.
7. Click Finish.

Command to configure Python in App Engine:

Run Hello World on your local machine

1. Create an isolated Python environment: python3 -m venv env. source env/bin/activate.

2. If you're not in the directory that contains the sample code, navigate to the directory that contains the hello_world sample code. Then install dependencies:

9

3. Run the application: python main.

Processor:

Before begin

1. Create a Google Cloud Platform project, if you don't have one already.

2. Make sure that Python 2.7 is installed on your

   system: python -V

   Note: As of Cloud SDK version 206.0.0, the gcloud CLI has experimental support for running using a Python 3.4+ interpreter (run gcloud topic startup for exclusions and more information on configuring your Python interpreter). All other Cloud SDK tools still requirea Python 2.7 interpreter.

3. **Download the archive file best suited to your operating system**. Most machines will run the 64-bit package. If you'd like to check, run uname -m to verify if you're running a 64-bit system.

Platform	Package	Size	SHA256 Checksum
Linux 64-bit (x86_64)	google-cloud-sdk-229.0.0-linux-x86_64.tar.gz	25.6 MB	b1c87fc9451598a76cf66978dd8aa06482bfced639b56cf31559dc2c7f8b7b90
Linux 32-bit (x86)	google-cloud-sdk-229.0.0-linux-x86.tar.gz	25.2 MB	ee8c45f8018d0fee92b07c32cc6d8c891241da0b88bfe289d4e58e6746c3f668

Alternatively, to download the Linux 64-bit archive file from your command-line, run:

curl -O https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-sdk- 229.0.0-linux-x86_64.tar.gz

For the 32-bit archive file, run:

curl -O https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-sdk- 229.0.0-linux-x86.tar.gz

4. Extract the archive to any location on your file system; preferably, your Home folder. On Linux, you can extract the archive file by running this command:

tar zxvf [ARCHIVE_FILE] google-cloud-sdk

5. If you're having trouble getting the gcloud command to work, ensure your $PATH is defined appropriately. Use the install script to add Cloud SDK tools to your path. You will also be able to opt-in to command-completion for your bash shell and usage statistics collection during the installation process. Run the script using this command:

./google-cloud-sdk/install.sh

Restart your terminal for the changes to take effect.

Alternatively, you can call Cloud SDK after extracting the downloaded archive by invoking its executables via the full path.

Initialize the SDK

Use the gcloud init command to perform several common SDK setup tasks. These include authorizing the SDK tools to access Google Cloud Platform using your user account credentials and setting up the default SDK configuration.

To initialize the SDK:

1. Run the following at a command prompt: gcloud init

   Note: To prevent the command from launching a web browser, use gcloud init --console- only instead. To authorize without a web browser and non-interactively, create a service account with the appropriate scopes using the Google Cloud Platform Console and use gcloud auth activate-service-account with the corresponding JSON key file.

2. Accept the option to log in using your Google user account:

   To continue, you must log in. Would you like to log in (Y/n)? Y

3. In your browser, log in to your Google user account when prompted and click **Allow** to grant permission to access Google Cloud Platform resources.

4. At the command prompt, select a Cloud Platform project from the list of those where you have **Owner**, **Editor** or **Viewer** permissions:

   Pick cloud project to use:
    [1] [my-project-1]
    [2] [my-project-2]
    ...
    Please enter your numeric choice:

   If you only have one project, gcloud init selects it for you.

5. If you have the Google Compute Engine API enabled, gcloud init allows you to choose adefault Compute Engine zone:

   Which compute zone would you like to use as project default?
    [1] [asia-east1-a]
    [2] [asia-east1-b]
    ...
    [14] Do not use default zone
    Please enter your numeric
    choice:

gcloud init confirms that you have complete the setup steps successfully:gcloud has now been configured!

You can use [gcloud config] to change more gcloud settings.

Your active configuration is: [default]

Run core gcloud commands

Run these gcloud commands to view information about your SDK installation:

1. To list accounts whose credentials are stored on the local

   system:gcloud auth list

   gcloud displays a list of credentialed accounts:

   Credentialed Accounts

   ACTIVE ACCOUNT

   *   example-user-
            1@gmail.com example-
            user-2@gmail.com

2. To list the properties in your active SDK configuration:
   gcloud config list

   gcloud displays the list of properties:

   [core]
   account = example-user-
   1@gmail.com
   disable_usage_reporting = False
   project = example-project

3. To view information about your Cloud SDK installation and the active SDK

   configuration: gcloud info

gcloud displays a summary of information about your Cloud SDK installation. This includes information about your system, the installed SDK components, the active user account and current project, and the properties in the active SDK configuration.

4. To view information about gcloud commands and other topics from the command line: gcloud help

For example, to view the help for gcloud compute instances create:

gcloud help compute instances create

gcloud displays a help topic that contains a description of the command, a list of commandflags and arguments, and examples of how to use it.

How to Run Program:

Now as we have finished installing app engine, now it's time to create and upload an app. In this case we will be taking example of a "HELLO WORLD" app in python.

1. As we already have made sure that we have python installed in our system, It will be easier for usto clone existing code and deploy it rather than creating our own so we will use python docs- sample. Run the command "**git clone https://github.com/GoogleCloudPlatform/python-docs- samples**".

2. cd python docs- samples/appengine/standard/hello_world

3. dev_appserver.py app.yaml
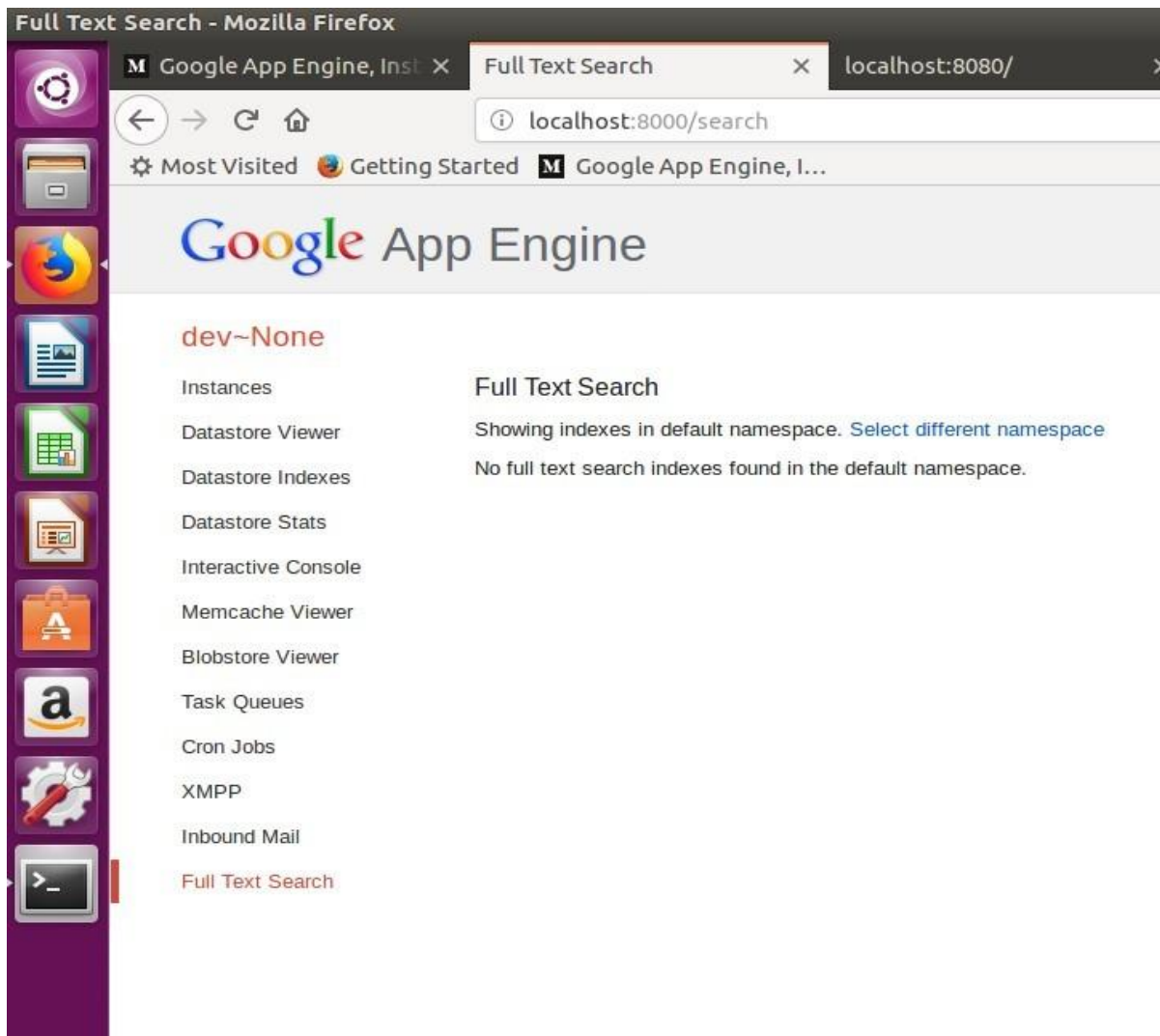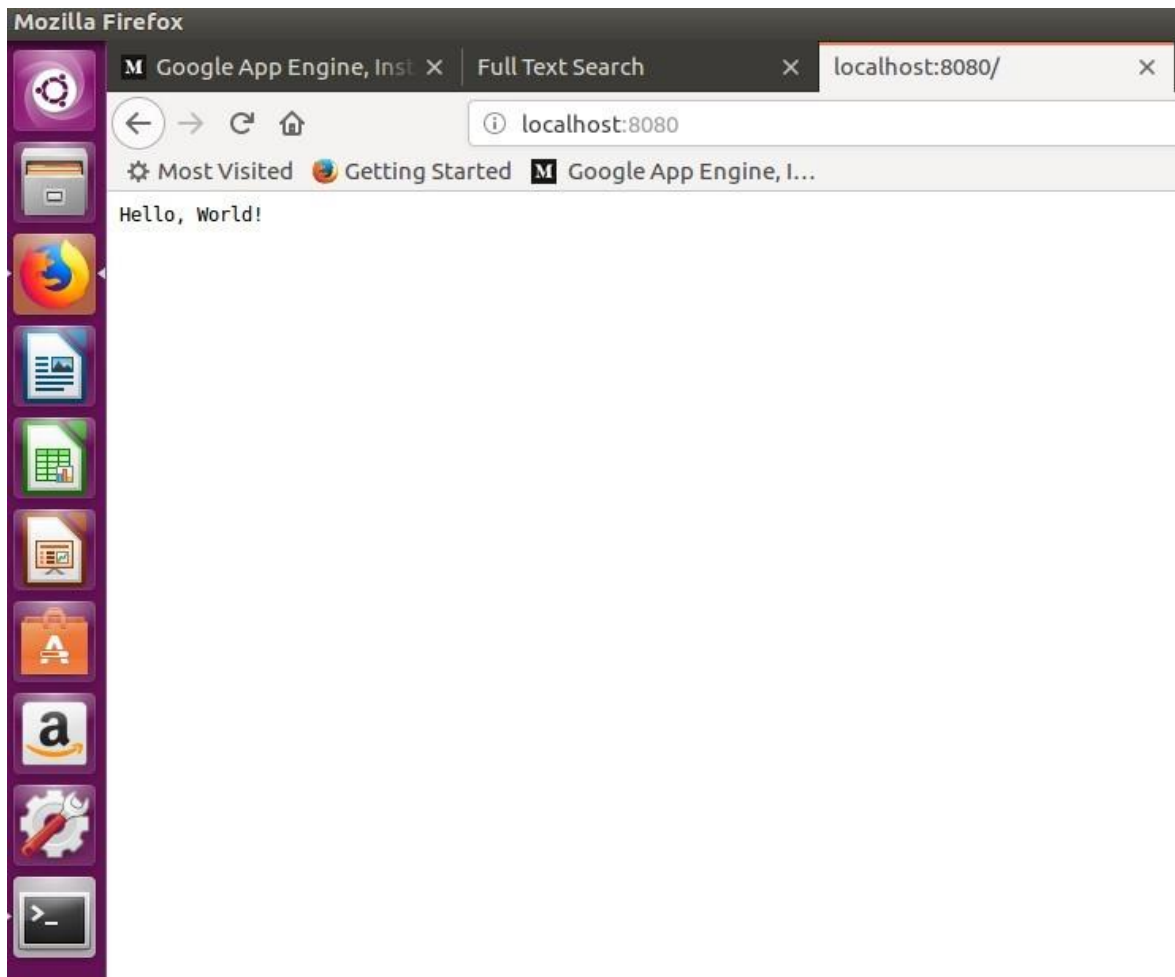
Conclusion: Thus, we have successfully implemented Google App Engi

Assignment No.3

Aim: Creating an Application in SalesForce.com using Apex programming Language.

Theory: Step1:

Log into your Sandbox or Developers Organization.

Click on setup → create → objects → new custom objects.

Enter Book for label.

Enter Books for plural label.

Click Save.
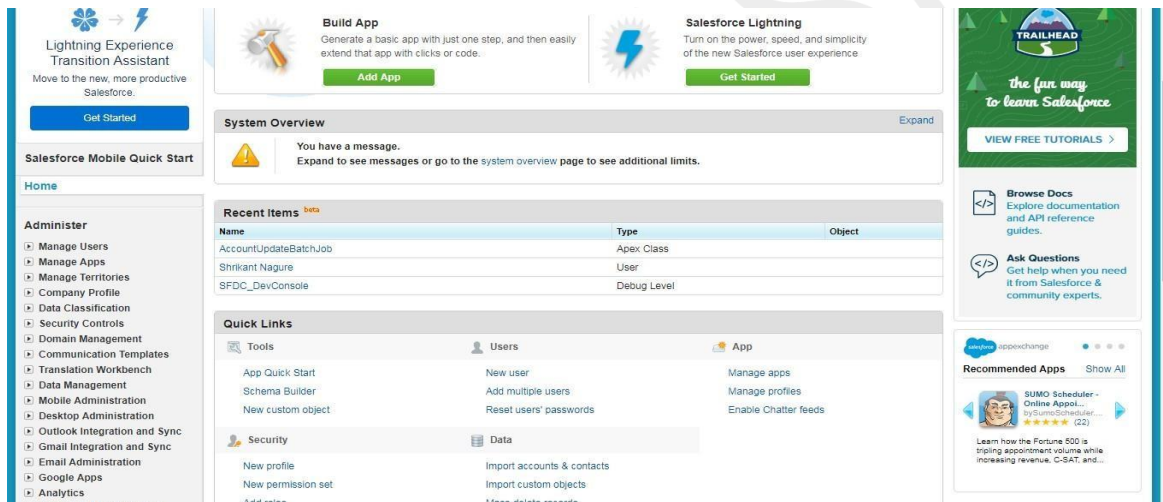
Step 2:

Now let's create a custom field.

In the custom field & relationship section of the Book Object click new.

Select Number for the datatype & next.

Enter Price for the field Label.

Enter 16 in the length text box.

Enter 2 in the decimal places & Next....next.... save.

Screenshot 1:

salesforce 19 | Search... [Search] | Switch to Lightning Experience | Shrikant Nagure ▾ | Setup | Help | Content ▾

Home | Libraries | Content | Subscriptions | Banks | Leads | Past Informations | Projects | Trainings | Properties | Offers | Consultant | Reports | Dashboards | Accounts | +

Quick Find / Search... 🔍
Expand All | Collapse All

🌸 → ⚡
Lightning Experience Transition Assistant
Move to the new, more productive Salesforce.
[Get Started]

Salesforce Mobile Quick Start

Home

Administer
▸ Manage Users
▸ Manage Apps
▸ Manage Territories
▸ Company Profile
▸ Data Classification
▸ Security Controls
▸ Domain Management

Custom Objects

Help for this Page ❓

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 or to build new application 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 access custom object data through the API.

[New Custom Object] [Schema Builder]

Action	Label	Master Object	Deployed	Description
Edit | Del	Bank		✓	
Edit | Del	Client		✓	
Edit | Del	Consultant		✓	
Edit | Del	Credit Card		✓	
Edit | Del	Offer		✓	
Edit | Del	Past Information		✓	
Edit | Del	Project		✓	
Edit | Del	Property		✓	
Edit | Del	Training		✓	
	Deleted Objects (1)			

Screenshot 2:

salesforce 19 | Search... [Search] | Switch to Lightning Experience | Shrikant Nagure ▾ | Setup | Help | Content ▾

Home | Libraries | Content | Subscriptions | Banks | Leads | Past Informations | Projects | Trainings | Properties | Offers | Consultant | Reports | Dashboards | Accounts | +

Custom Object
Book

Help for this Page ❓

Standard Fields [4] | Custom Fields & Relationships [0] | Validation Rules [0] | Page Layouts [1] | Field Sets [0] | Compact Layouts [1] | Buttons, Links, and Actions [8] | Record Types [0] | Apex Sharing Reasons [0] | Apex Sharing Recalculation [0] | Object Limits [10]

Custom Object Definition Detail   [Edit] [Delete]

Singular Label	Book	Description	
Plural Label	Books	Enable Reports	☐
Object Name	Book	Track Activities	☐
API Name	Book__c	Allow in Chatter Groups	☐
		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
Created By	Shrikant Nagure, 4/3/2019 12:42 PM	Modified By	Shrikant Nagure, 4/3/2019 12:42 PM

Standard Fields   Standard Fields Help ❓

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed
Edit	Book Name	Name	Text(80)		✓
	Created By	CreatedBy	Lookup(User)		

Screenshot 3:

salesforce 19 | Search... [Search] | Switch to Lightning Experience | Shrikant Nagure ▾ | Setup | Help | Content ▾

Home | Libraries | Content | Subscriptions | Banks | Leads | Past Informations | Projects | Trainings | Properties | Offers | Consultant | Reports | Dashboards | Accounts | +

New Custom Object

Help for this Page ❓

ⓘ Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. Tell me more! Don't show this message again

Custom Object Definition Edit   [Save] [Save & New] [Cancel]

Custom Object Information   [Save]   ❙ = Required Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label | Book | Example: Account
Plural Label | Books | Example: Accounts
Starts with vowel sound | ☐

The Object Name is used when referencing the object via the API.

Object Name | Book | Example: Account

Description | [text area]

Context-Sensitive Help Setting
◉ Open the standard Salesforce.com Help & Training window
◯ Open a window using a Visualforce page

Content Name | --None-- ▾

Track Field History ☐

Deployment Status Deployed

Allow Search ☐

Help Settings Standard salesforce.com Help Window

Created By Shrikant Nagure, 4/3/2019 12:42 PM

Modified By Shrikant Nagure, 4/3/2019 12:42 PM

Left navigation

Home

Administer
- Manage Users
- Manage Apps
- Manage Territories
- Company Profile
- Data Classification
- Security Controls
- Domain Management
- Communication Templates
- Translation Workbench
- Data Management
- Mobile Administration
- Desktop Administration
- Outlook Integration and Sync
- Gmail Integration and Sync
- Email Administration
- Google Apps
- Analytics
- Data.com Administration

Build
- Customize
- Create
  - Apps
  - Custom Labels
  - Interaction Log Layouts
  - Objects
  - Big Objects

Standard Fields   Standard Fields Help ?

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed
Edit	Book Name	Name	Text(80)		✓
	Created By	CreatedBy	Lookup(User)		
	Last Modified By	LastModifiedBy	Lookup(User)		
Edit	Owner	Owner	Lookup(User,Queue)		✓

Custom Fields & Relationships   [New] [Field Dependencies]   Custom Fields & Relationships Help ?

No custom fields defined.

Related Lookup Filters

No related lookup filters defined.

Validation Rules   [New]   Validation Rules Help ?

No validation rules defined.

Triggers   [New]   Triggers Help ?

No triggers defined

Page Layouts   [New] [Page Layout Assignment]   Page Layouts Help ?

Home

Administer
- Manage Users
- Manage Apps
- Manage Territories
- Company Profile
- Data Classification
- Security Controls
- Domain Management
- Communication Templates
- Translation Workbench
- Data Management
- Mobile Administration
- Desktop Administration
- Outlook Integration and Sync
- Gmail Integration and Sync
- Email Administration
- Google Apps
- Analytics
- Data.com Administration

Build
- Customize
- Create
  - Apps
  - Custom Labels
  - Interaction Log Layouts
  - Objects

○ Auto Number — A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

○ Formula — A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

○ Roll-Up Summary ⓘ — A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

○ Lookup Relationship — Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

○ Master-Detail Relationship — Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:
- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.
- You can create rollup summary fields on the master record to summarize the detail records.

The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

○ External Lookup Relationship — Creates a relationship that links this object to an external object whose data is stored outside the Salesforce org.

○ Checkbox — Allows users to select a True (checked) or False (unchecked) value.

○ Currency — Allows users to enter a dollar or other currency amount and automatically formats the field as a currency amount. This can be useful if you export data to Excel or another spreadsheet.

○ Date — Allows users to enter a date or pick a date from a popup calendar.

○ Date/Time — Allows users to enter a date and time, or pick a date from a popup calendar. When users click a date in the popup, that date and the current time are entered into the Date/Time field.

○ Email — Allows users to enter an email address, which is validated to ensure proper format. If this field is specified for a contact or lead, users can choose the address when clicking Send an Email. Note that custom email addresses cannot be used for mass emails.

○ Geolocation — Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.

◉ Number — Allows users to enter any number. Leading zeros are removed.

○ Percent — Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.

○ Phone — Allows users to enter any phone number. Automatically formats it as a phone number.

○ Picklist — Allows users to select a value from a list you define.

○ Picklist (Multi-Select) — Allows users to select multiple values from a list you define.

○ Text — Allows users to enter any combination of letters and numbers.

Step 3:

Clilck setup → Develop → Apex Classes & click new

In the class Editor enter this class

```
public class MyHelloWorld{

public static void applyDiscount(Book__c[] books)

{

  for(Book__c b:books)

      {b.Price__c*=0.9;}
 }

 }
```
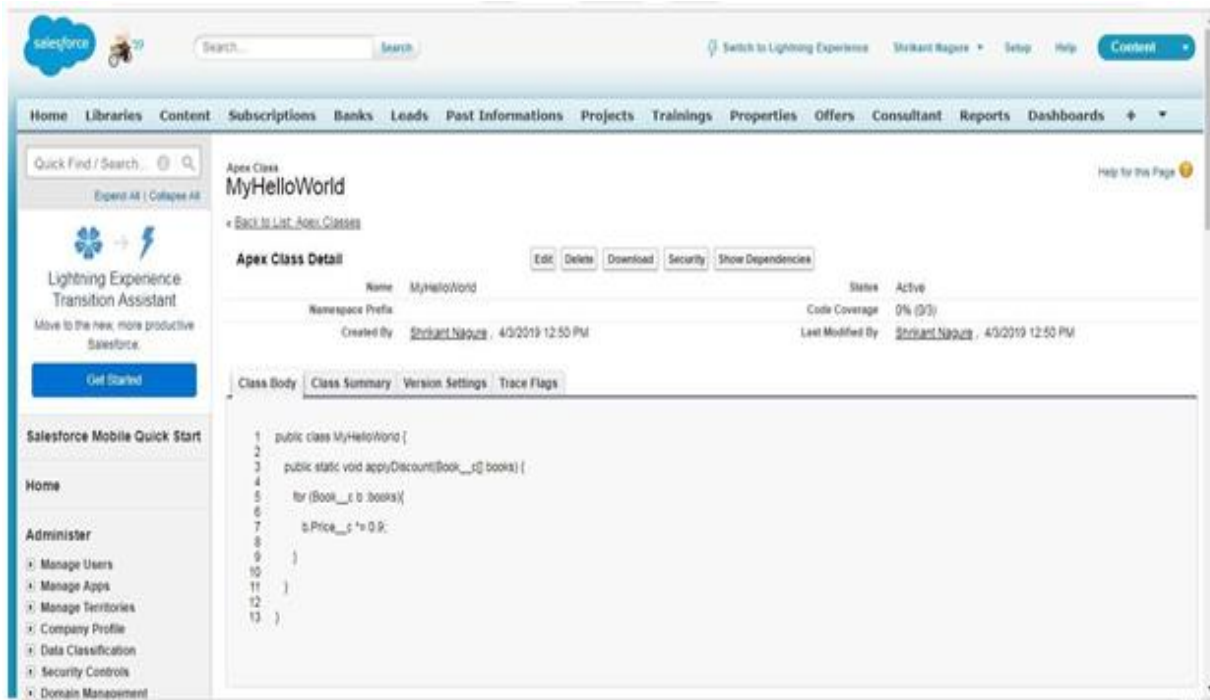
Step 4:

Add a trigger

A trigger is a piece of code that can execute objects before or after specific data manipulation language events occurred.

Click on setup → create → objects → click the object you have created ex:
Book Scroll down you can see Trigger Click on New

In the trigger Editor enter this class

trigger HelloWorldTrigger on Book__c(before insert)

{

Book__c[] books=Trigger.new;

MyHelloWorld.applyDiscount(books);

}

Step 5:

Click on setup → create → tabs → new custom tab → choose Book → next&.next&..save.

Click on tab Books → new → insert a name for Book → insert price for that book → click on save.

Conclusion:

Thus we have studied how to create and run an application in salesforce developers site by using APEX programming language.

Assignment No.4

Title: Salesforce cloud

Problem Statement: Design and develop custom Application (Mini Project) using Salesforce Cloud.

Procedure: If you haven't already, log in to Trailhead, then firstlogin in Trailhead After that click Launch at the bottom of this page. This open your Trailhead Playground in a new tab
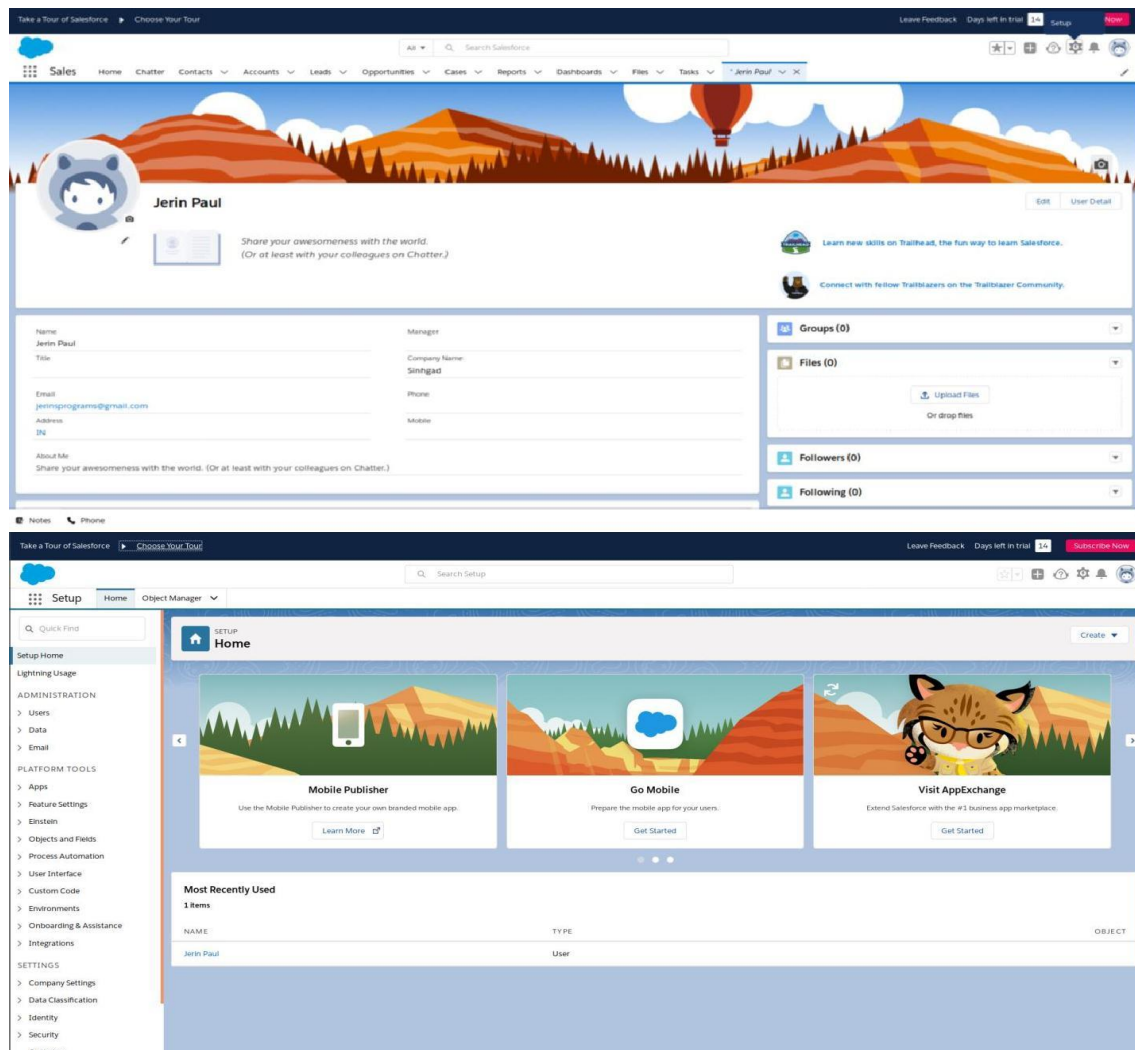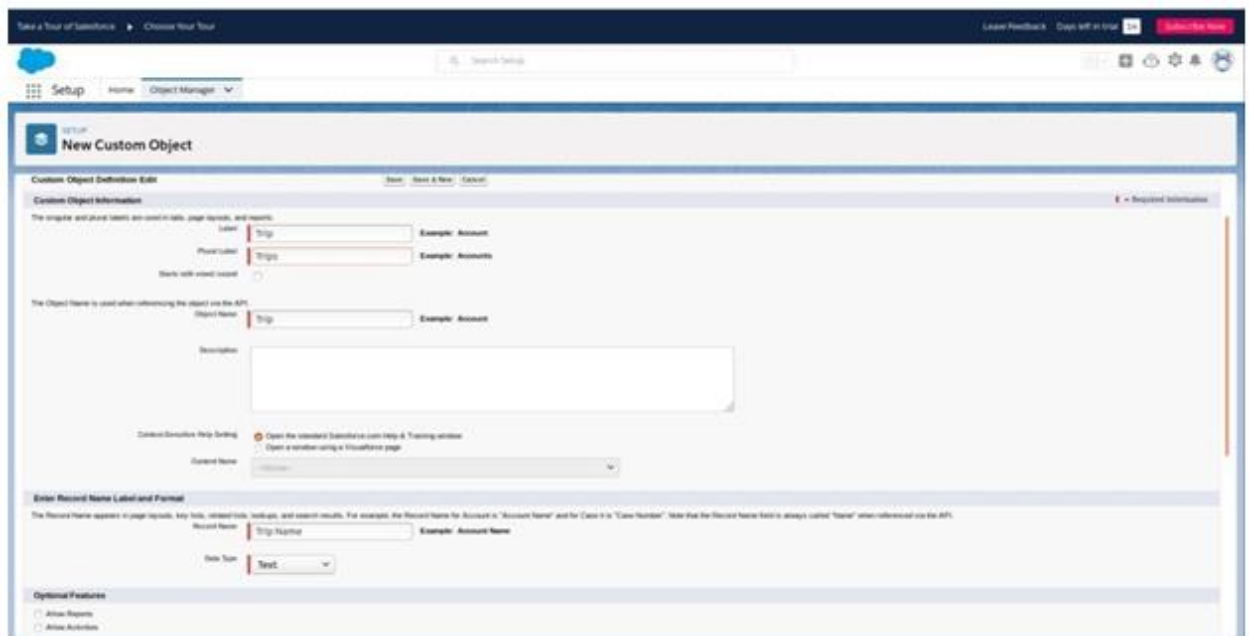
Step 1: Create an App and a Custom ObjectClick setup and select Setup for current app.

After click on setup the following page is opened in new window. Now we create an object.So click Object Manager tab next to the Home tab. Click on Create ->Custom Object.
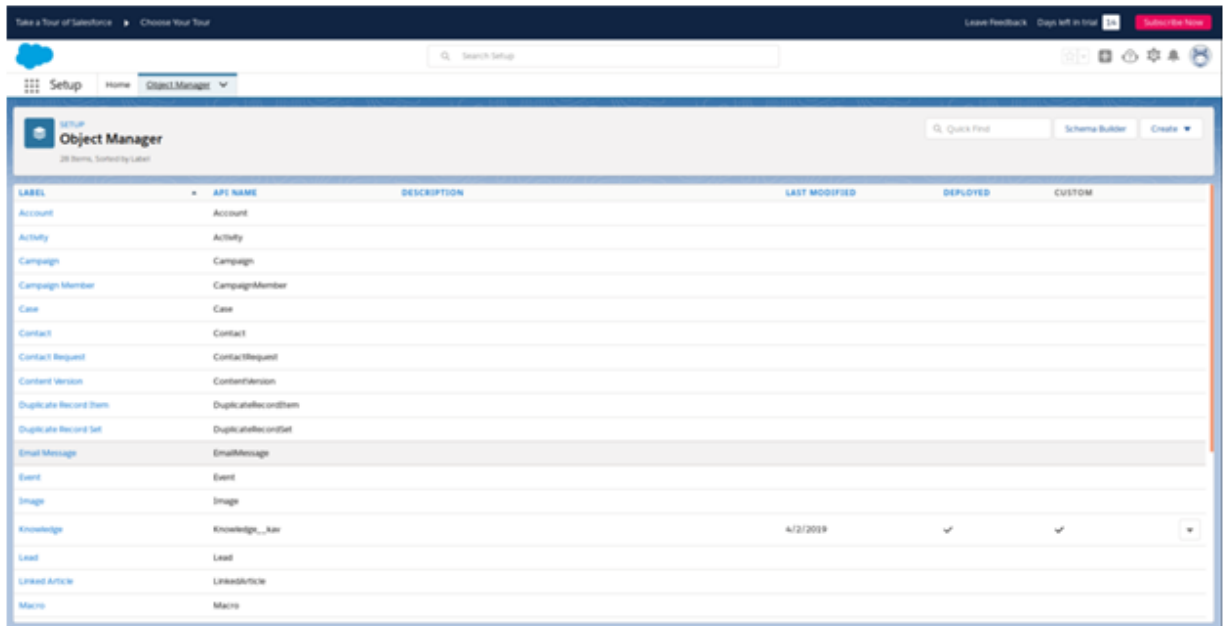
New Custom object page opened. Now create object as follows:Give Label as a Comment. Give plural Label as Comments.

Give Record name as Comment name.Set Data type as Text.Check the Allow Reports checkboxClick on save.

Click the Home tab, enter Tabs in Quick Find for search and select Tabs Under Custom Object Tabs, click New

For Object, select Comment For Tab Style, select any icon.
> Click Next -> Next -> Save.Enter App Manager in the Quick Find for search and select App Manager. Click New Lightning App, enter Comment Box for App Name, and click Next-> Next->Next.

New Lightning App

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

*App Name ❶

Trip App

*Developer Name ❶
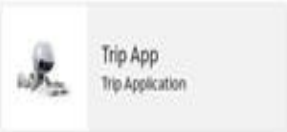
Trip_App

Description ❶

Trip Application

App Branding

Image ❶   Primary Color Hex Value
                  ❶

                  ⬛ ▼ #2FEA0E

Clear

Org Theme Options

☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview

Trip App
Trip Application

Next

New Lightning App

App Options

Navigation ⓘ

*Navigation Style
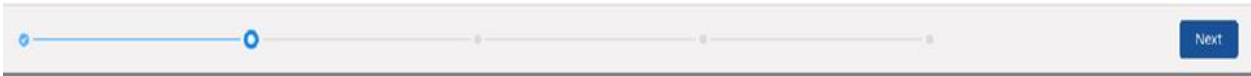- ● Standard navigation
- ○ Console navigation

Setup and Personalization ⓘ

Setup Experience
- ● Setup (full set of Setup options)
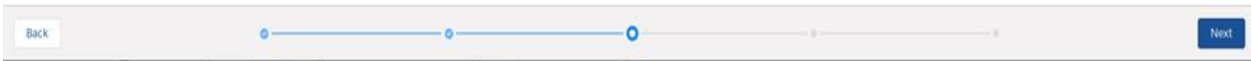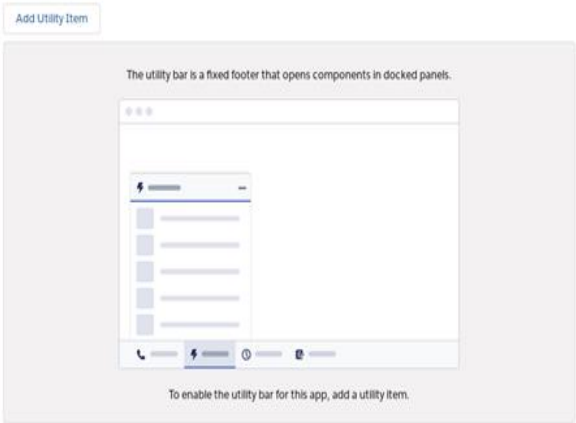- ○ Service Setup
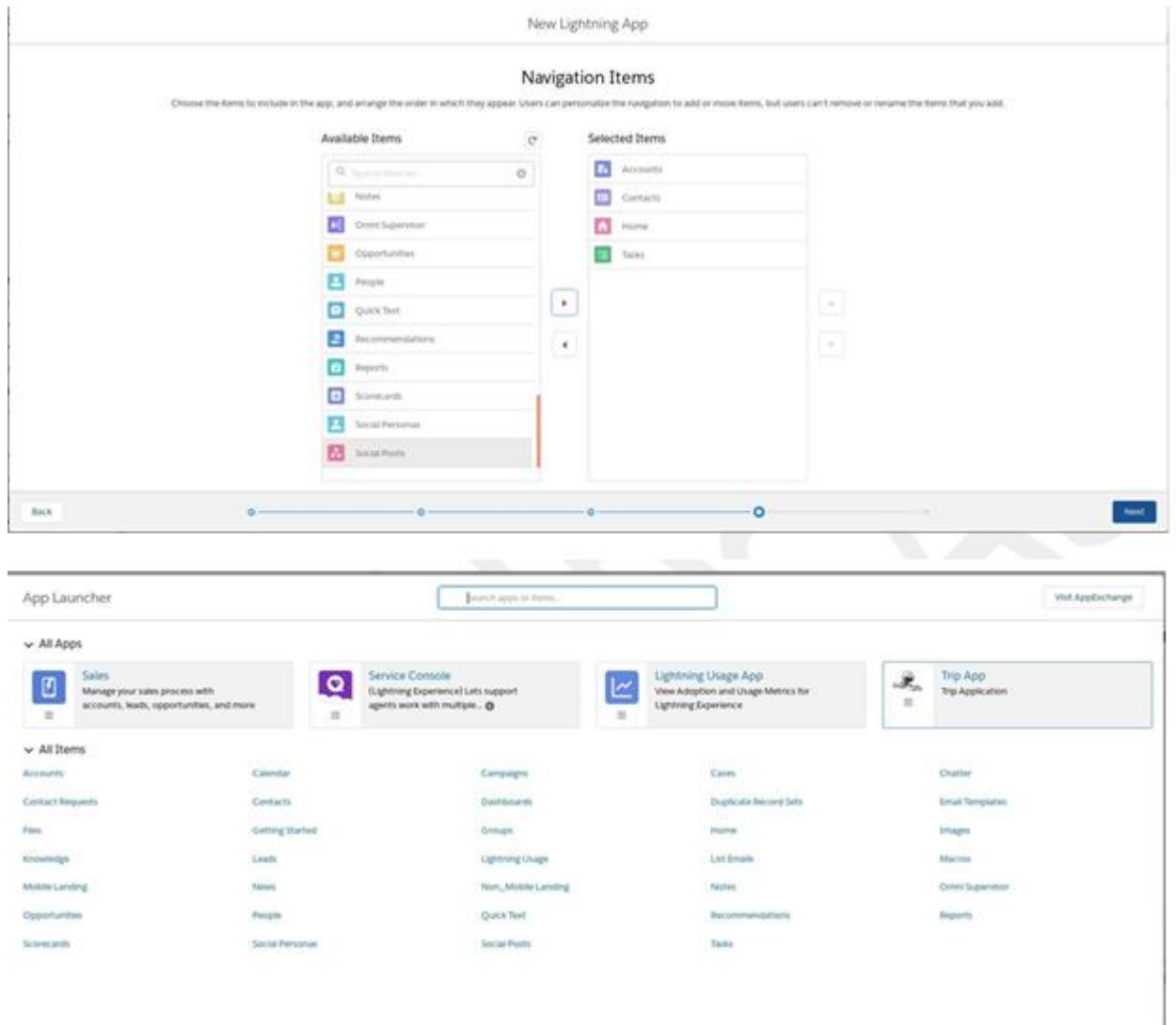- ○ Basic Sales Setup

App Personalization Settings
- ☐ Disable end user personalization of nav items in this app
- ☐ Disable temporary tabs for items outside of this app

Next

New Lightning App

Utility Items

Give your users quick access to productivity tools and add background utility items to your app.

Add Utility Item

The utility bar is a fixed footer that opens components in docked panels.

To enable the utility bar for this app, add a utility item.

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From Available Profiles, select System Administrator and move it to Selected Profiles. Click Save & Finish

To check your changes, clickApp Launcher and select the Comment Box app.

Step 2: Tour the App

Step 3: Try Out the Mobile App.Here we use the Chrome Developer ToolsOpen Chrome browser and open the Developer Tools View Developers Developer Tools.Click the Toggle Device Mode button to stimulateyour browser as a mobile device.

Create a New Lightning Page
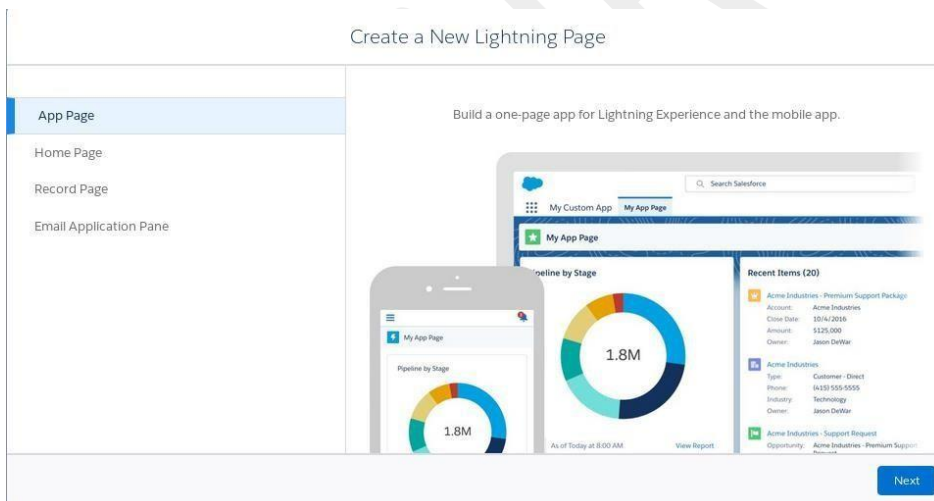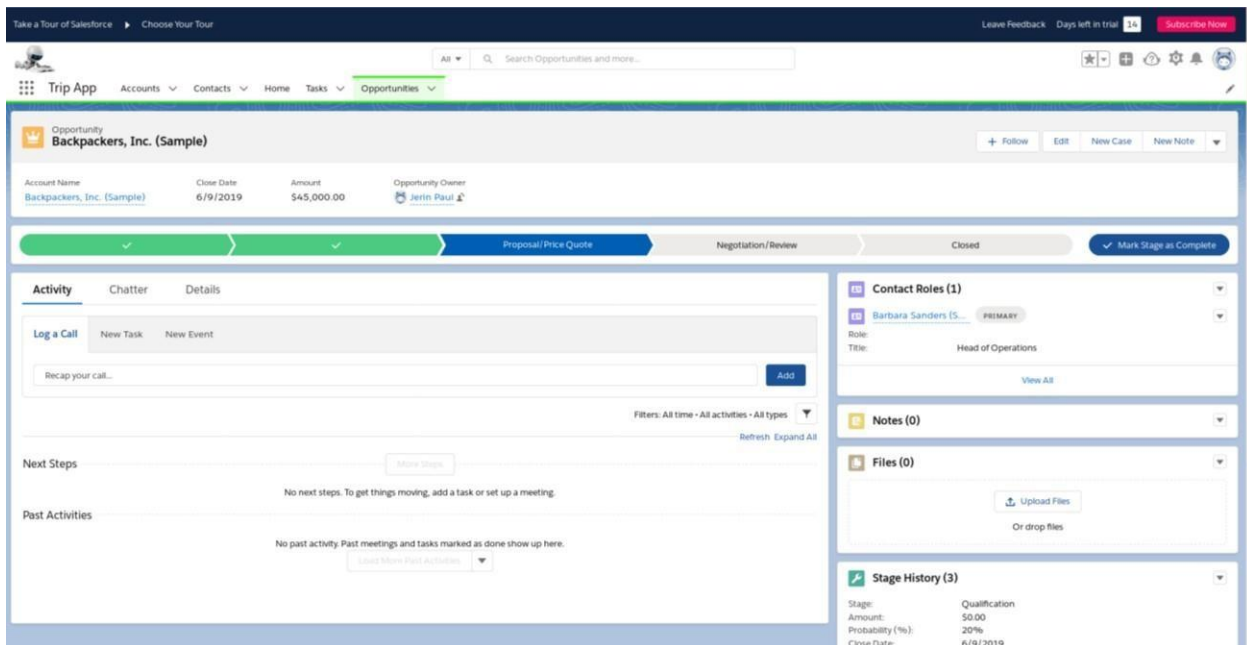
To simulate the Sales force mobile app in your browser, copy and paste in the URL from the previous tab. Delete thepart of the URL immediately after .lightning.force.com/lightning. Click on icon to open the left navigation bar.Find the Comments object under Recent. You may need to click More to see it. Click Comments to display you recently viewed comments if you have any Click New to create a comment.

Create a New Lightning Page

*Label

Delete

*Object

Account ▼

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Create a New Lightning Page

CHOOSE PAGE TEMPLATE   CLONE SALESFORCE DEFAULT PAGE

Header and One Region

Header and Right Sidebar

Header and Three Regions

Header and Two Equal Regions

Header, Subheader, Left Sidebar

Header, Subheader, Right Sidebar

One Region

Three Regions

CUSTOM (0)

Full-width header and narrower subheader above a main region and right sidebar.

Back   Finish

Conclusion: Thus, we have successfully implemented SalesForce cloud.