Assignment: 1

Title:
Microsoft Azure

Objective:
To learn about Microsoft Azure a cloud computing platform and infrastructure, created by Microsoft.

Problem Statement:
Case study on Microsoft Azure to learn about the same. It is a cloud computing platform and infrastructure created by Microsoft, for building deploying and managing applications and servie through a global network of microsoft managed data centre.

Software and Hardware requirements:
A computing device with a display having internet connectivity and capable to run web browsers.

Theory:

Introduction:

Microsoft Azure is a cloud computing service created by microsoft for building, testing, deploying and managing applications and services through a global network of microsoft managed data centres. It provides software as a service (SaAS) platform and infrastructure as a service (IaAS) and support many different programming tools language and frameworks including both microsoft specific and third party.

Microsoft Azure uses specialized operating system, called Microsoft Azure to run its 'fabric layer', a cluster hosted at Microsoft's data centre that manages computing and storage resources.

Azure provides an API build on REST, HTTP and XML that allows a developer to interact with the services provided by Microsoft. It also provide client side managed class library that encapsulated the functions of interacting with the service.

Services:

Mobile Services:

Mobile engagement collects real time analytics that highlight users behaviour. It also provides push notifications to mobile devices.

Storage Services:

It provides REST, SOK APIs for sharing and accessing data on the cloud.

Table services let programs store structural text in partitioned collections of entities that are accessed by partition key and primary key. It's a NO SQL non-relational database.

Blob Services:

Allows programs to store unstructured text and binary, data as blobs that can be accessed by a HTTP(s) path.

Queue Service:

Lets programs communicate asynchronously by message using queues.

Data Management:
Azure Search provides text search and a subset of Data structured files using REST or SDK APIs.

DOSMOS DB:
It is a NO SQL database services that implements a subset of file the SQL select statement on ISON documents.

SQL Databases:
Formerly known as SQL Azure database, works to create scale and extended applications into the cloud using Microsoft SQL servlet technology.

SQL database warehouse:
It is a data warehousing service designed to handle computational and data intensive queries and database exceeding DB.

Azure data:
It is a scalable data storage and analytic service that require developer to run massively parallel queries.

Conclusion:
Executing applications in the cloud offer many advantages. Over the traditional way of running program.

Through this case study we learned about Microsoft Azure a cloud computing platform and infrastructure created by Microsoft studied about it's features, service and data management techniques.

Many Companies uses Microsoft Azure cloud services for their bussiness.

Assignment-2

Title:
Google App Engine.

Problem Statement:
Installation & Configure Google App Engine.

Objective:
To learn about installments and configuration Google App Engine.

Software & Hardware requirements:
Hardware: PC, desktop, laptop with i5 processor.
Software:
Operating System : Linux
Google cloud software development kit, Python 2.7 & above.

Theory:
Introduction:
Google App Engine is a web application hosting service. An application or service accessed over the web, usually with a web browser, storefronts with shopping carts, social networking sites, multi-player games, mobile applications, survey applications, project management, collaboration, publishing, and all the things we are discovering are good uses for the web.

Google App Engine is designed to boost website with many simultaneous users. Applications written for App Engine scale automatically. As more people use resources of the application it allocates more resources and manages the use of the resources.

Google App Engine:

It is platform as a service (PaaS) cloud computing platform that is fully managed and uses builtin services to run your apps.

As soon as you have signed for a cloud resource, you can build an app:

- With the template / HTML package in Go.
- With Ninja2 and webapp2 in Python.
- With cloud SQL in PHP
- With Maven in Java.

These are covered by the deprecation policy and the service level agreement of the app engine. Any change made to such a feature are backward compatible. These include data storage retrieval, and search communications process management, computation, app configuration and management.

- Data storage, retrieval and search include features such as migration tool, google cloud SQL logs, database, dedicated memcache
- Communication include feature such as XMPP, channel, URL, fetch, mail and Google cloud Endpoints.

Steps to install and configure google alop engines:

1. Create Google cloud platform project.
2. Download google cloud SDK archive for your system depending upon the OS & architecture.
3. Extract the archive to any location on your file system preferably your

home folders.

4. If you are having any trouble getting the cloud command to work, ensure your path is defined properly. Use the install script to add cloud SDK tools to your path. You will also be able to opt command. Completion for your bash shell and usage statistics collection during the uninstallation process.
5. Restart your terminal for the changes to take place.
6. Initialize the SDK.
7. Use the gcloud init command to perform several command SDK setup tasks. These include authorizing the SDK tools to access google cloud platform using your user account credentials.

Conclusions:

For the above lab practical we learned how to implement and configure google app engine using own google SDK and commands.

Assignment : 3

Title:
Apex programming language

Objective
To create an application using apex programming language in salesforce.com

Problem Statement:
Creating an application in salesforce.com using apex programming language.

Software and Hardware Requirements:
A computer device with a display having internet connectivity and capable to run web browser.

Operating System: any
Web Browser: any

Theory

Introduction
Apex is a properiotary language developed by the salesforce.com. As per the offical definition. Apex is strongly typed, object oriented programming language that allows developer to execute the flow and transaction control statements on the force.com platform server in conjuction with the calls to the force.com

It has a Java like syntax and acts like database stored procedures. It enables the developers to add business logic to most system events including buttons clicks, related record updates and visual force page. Apex code can be initiated by web services requests and from triggers on objects. Apex is included in Performance edition, Unlimited Edition, Enterprise Edition, and developer edition.

Apex application:

We can use apex when we want to

- Create web services with integrating other systems.
- Create email services for email cast or setup.
- Create email services.
- Perform complex validation over multiple objects at the same time and also custom validation implementation.
- Create transactional logic like using the database methods for updating the records.
- Perform some logic when a record is modified and modify the related objects record when there is some working structure of Apex.

Flow of actions:

There are two sequences of actions, when the developer sees the code and when an end user performs some action which invoke the apex code.

Developer action:

When a developer write and saves the apex code to the platform, the platform application server first compiles the code into set of instructions that can be understood by the Apex runtime interpreter,

End user action:

When an end user triggers the execution of Apex, by dividing a button or accessing a visual force page, the platform application server retrieves the compiled instructions from the metadata and sends them through the runtime interpreter before returning the result. The end user observes no difference in execution time as compared to standard application platform.

Steps to create an Application in Sales Force using Apex programming language.

1. Create a new org.

After sign-up, logging using URL.

Go to developer console for writing program.

Click on file then select Apex class and write a code.

Select tabs section(for creating GUI)

Open a page.

Write code in programs window.

Conclusion:

After performing the above lab practical we learned how to create an application in Sourceform.com using Apex programming language and learned about apex architectural and its applications.

Assignment-4

Title:
Salesforce Cloud custom application

Objective:
To develop an application using salesforce cloud.

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

Software and Hardware Requirements:
A computing device with a display having internet connectivity and capable to run on web browser.

Operating system: any
Web browser: any

Theory
Introduction

Salesforce.com is an American cloud based software company headquartered in Sanfrancisco, California. Though the bulk of its revenue comes from a customer relationship management (CRM) product. Salesforce also sell a complementary suite of enterprise application focused on customers service, marketing automation, analytics and application development.

The salesforce customer portal provides customers the ability to trade their own cases, including a social networking plug in that enable the user to join the conversation about their company on social media, provides analytics tools and other services including email alert, Google search

Assignment-4

Title:
Salesforce Cloud custom application

Objective:
To develop an application using salesforce cloud.

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

Software and Hardware Requirements:
A computing device with a display having internet connectivity and capable to run on web browser.

Operating system: any
Web browser: any

Theory
Introduction

Salesforce.com is an American cloud based software company headquartered in Sanfrancisco, California. Though the bulk of its revenue comes from a customer relationship management (CRM) product. Salesforce also sell a complementary suite of enterprise application focused on customers service, marketing automation, analytics and application development.

The salesforce customer portal provides customers the ability to trade their own cases, including a social networking plug in that enable the user to join the conversation about their company on social media, provides analytics tools and other services including email alert, Google search

and access to customer entitlement and contracts.

Lightning Platforms:

It is a platform as a service (PaaS) that allows developer to create add on applications. These third party applications are hosted on salesforce.com infrastructure.

Steps to design and develop custom Application using Salesforce cloud

1. Click on lightning experience.
2. Click on setup and select setup for current App.
3. Click on create an object.
4. Click on Object Manager Tab next to Home Tab.
5. Click on create - custom object.
6. New customer object page open, Label as a command, Plural, label, comments
7. Give Record Name - Common name, Data type, text.
8. Select Allow Reports check box.
9. Click on Save.
10. Click on Home Search Tabs in Quick Search, select custom object
11. For object select command for Tab style select Any Icon.
12. Click Next Next Save.
13. Search App Manager in Quick Search and select App managers.
14. Enter name to app name, click on Next - Next - Next.
15. Click on save and finish.
16. Click on app Lauches Symbol and select comment Box App.
17. Tour the app.
18. Try out Mobile App:
    - Select Chrome developer tools.
    - Open chrome Right click on chrome page.

- Select Inspect
- Click toggle device Mode Button to simulate your browsers as a device.

19. To stimulate the sales force mobile app in your browser, copy and paste in use form previous tab. Delete post of the use immediately.

- Click on left navigation bar.
- Find comment object under recent and click on it
- Click create a comment.

Conclusion:

After performing the above lab practical we learned how to design and develop custom Application.

Using salesforce cloud, we also learned about the salesforce lightning platform.