**SALES FORCE QUESTIONS:- 1 A Question**

**Creation of web applications on Salesforce cloud Platform.**

1. Create a web application to enter the students’ details like name, USN, semester, section and CGPA to a database on Salesforce cloud platform.
2. Create a web application to implement an online cart for adding items to a shopping cart and deleting it.
3. Create a web application to enter the faculty details like faculty ID, faculty name, and salary to a database and calculate the income tax to be paid by the faculty at the end of financial year.
4. Create a web application to book a flight from a source to destination and store the status of flight, and departure timings on database.
5. Create a Collaborative learning environment for a particular learning topic using Google Apps. Google Drive, Google Docs and Google Slides must be used for hosting e-books, important articles and presentations respectively.
6. Develop Department events' registration app with an object containing event name, date/time, venue as parent relationship, another object containing student name, branch, event name, date/time, and venue as child relationship.
7. Develop Blood donation registration app with an object which records donors' name , age and blood group as parent relationship and another object containing hemoglobin level, donated or not details (if age>18) child relationship.
8. Develop Attendance maintenance app with an object to record student details and attendance and a provide a link to college websites' results webpage.
9. Create a web application with objects to maintain database of an art gallery which contains objects like artists, arts, and inventory and provide a link to any of the art gallery website.
10. Create a web application with objects to record details about staff, syllabus and activities of a department and provide a link to college website from any of the objects.

**Note: Use Cloud Analyst Simulator for Simulation**

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| **Exp. No** | | **Experiment List** |
| **PART-A** | | |
| 1 | a) | Creation of web applications on Salesforce cloud Platform. |
|  | b) | Use the following user base configuration to simulate following scenarios for the given data Centre and virtual machine configuration and answer to the following questions.  **Scenario-1**: Nearest data center with round robin policies  **Scenario-2**: Optimize response time with round robin policies   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | User base | Region | Data center | Peak-hour users | Off-peak hour users | Virtual machines | | UB1 | North America | -- | 1000 | 500 | DC1-50 | | UB2 | South America | -- | 1200 | 800 | | UB3 | Europe | DC1 | 2000 | 1000 | | UB4 | Africa | -- | 500 | 300 | | UB5 | Asia |  | 3000 | 300 | | UB6 | Ocenia |  | 1500 | 150 |   i) Tabulate the overall response time of all the scenarios and plot a line graph  ii) Plot a bar graph for the data processing time of all the scenarios  iii) Compare average response time by regions of all scenarios by plotting line graph  iv) Using Pie chart show the total cost spent for each scenario |

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| 2 | a) | Install Virtual box/VMware Workstation with different flavours of Linux and execute some C programs |
|  | b) | Simulate the following scenarios for the given user base, data Centre and virtual machine configuration and answer to the given questions   |  |  |  |  | | --- | --- | --- | --- | | **Scenario** | **Scenario Description** | **Load Balancing algorithm** | **Service broker policy** | | 1 | One data center with 50 Virtual Machines for UB1 | Nearest Data Centre | Round robin | | 2 | Two data centers with 25 and 50 Virtual Machines respectively for UB1 | | 3 | Three data centers with 100,75 and 25 Virtual Machines respectively for UB1 |   i) Tabulate the overall response time and data processing of all the scenarios and plot the bar graph  ii) Plot a line graph of data center request servicing time of all the data centers for all the scenarios  iii) Compare average response time by regions of all scenarios by plotting line graph  iv) Mention the data centers used by the UB2,UB3, UB4 and UB5 |

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| 3 | a) | Install Google App Engine. Create hello world app and other simple web applications using python/java. |
| b) | Simulate the following scenarios for given data Centre, data Centre and virtual machine configuration and answer the following questions  **Scenario 1**: closest data center and round robin policies  **Scenario 2**: optimize response time and round robin policies  Use the following user base configuration for all the scenarios   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | User base | Region | Data center | Peak-hour users | Off-peak hour users | Virtual machines | | UB1 | North America | DC1, DC3 | 1000 | 500 | DC1-50  DC3-100 | | UB2 | South America | --- | 800 | 1200 |  | | UB3 | Europe | DC4 | 2000 | 1000 | DC4-150 | | UB4 | Africa | -- | 500 | 300 |  |  1. Tabulate and compare the Average response time and data processing time of all the scenarios by plotting the line graph 2. Tabulate the response time of user bases in all scenarios and compare these by plotting bar graph. Which user base is taking maximum time among three scenarios? Why 3. Calculate the data transmission time from DC1 to UB2 4. Plot the bar graph for data center cost of all scenarios |

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| 4 | a) | Create a RDS and launch in your custom VPC network using AWS. |
|  | b) | Analyze the various service broker policies for the following configuration and answer the following questions.     1. Tabulate and compare the data processing time of service broker policies by plotting the line graph 2. Tabulate and compare response time of service broker policies by plotting the bar graph 3. Tabulate the cost for service broker policies and represent it using pie chart 4. Which service broker policy is best and why? |

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| 5 | a) | Create a file in one virtual machine and transfer it another virtual machine files from one virtual machine. |
|  | b) | Analyze the various load balancing algorithms for the given user base, data Centre and virtual machine configuration and answer the following questions. Consider the following user base configuration for all load balancing algorithms   |  |  | | --- | --- | | Number of User bases | 06 | | Region for the user bases | UB1-South America, UB2-Asia, UB3-North America, UB4-Europe, UB5-Africa, UB6-Ocenia | | Average peak users for all the user bases | 10000 | | Average off-peak users for all the user bases | 100 | | Peak hours’ time | Depends on the region | | Data centers in each user base | UB1-1, UB2-2, UB3-1, UB4-3, UB5-2, UB6-1 | | Virtual machines in each data center | 6 | | Simulation time | 10 mins | | Service broker policy | Nearest data center |  1. Tabulate and compare the data processing time of load balancing algorithms by plotting the line graph 2. Tabulate the response time of load balancing algorithms by plotting the bar graph 3. Tabulate the response time by region for load balancing algorithms and plot bar graph 4. Which load balancing algorithm is best and why? |

**PART-B**

**Mini Project**: Design and implementation of mini projects using concepts of cloud computing.

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| **Course Outcomes** | **Statements** | **Blooms Level** |
| **CO1** | Develop applications on different cloud platforms Use various services of AWS | **L3** |
| **CO2** | Describe the working of Cloud Analyst simulator | **L2** |
| **CO3** | Demonstrate the working of datacenters using simulator | **L3** |
| **CO4** | Illustrate the working virtualization using Virtual box/VMware | **L3** |
| **CO5** | Implement mini project using cloud services | **L4** |

