Course Name- SQL AND DATAVISUALIZATION

Course Code- INT 350

Continuous Assessment-III

Important Guidelines:

1. All questions in this Academic Task are compulsory.
2. It is mandatory to attempt all questions of the assignment in your own handwriting on A4 size sheets/pages with a blue color ink pen. Any other mode of attempt (typed or printed codes or table) except handwritten/drawn will not be accepted/considered as valid submission(s) under any circumstances.
3. Every attempted sheet/page should carry clear details of student such as Name, Registration number, Roll number, Question number and Page number. The page numbers should be written clearly on the bottom of every attempted sheet in a prescribed format as: for page 1; Page 1 of 4, for page 2; Page 2 of 4, for page 3; Page 3 of 4 and for page 4; Page 4 of 4, in case your assignment/document is of 4 pages.
4. After attempting the answer(s) single pdf format document (can be done with many free online available converters).
5. This PDF file should be uploaded onto the UMS interface on or before the last date of the submission.
6. Refrain from indulging into plagiarism as copy cases will be marked zero.
7. This Document contains multiple sets of papers. The allocation sheet is also attached in the CA file. All the students are advised to attempt the Set allocated to him/her.
8. **If any student found indulge in malpractices like plagiarism from internet or classmates, attempting wrong set of question paper or any other, will be awarded with zero (0) marks in CA.**

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-1

1. Arun has the following data of Employees in CSV format

Emp_name	ID	Salary
Ravish	10	100000
Suresh	101	200000
Priya	1010	500000
Neha	10101	700000
Nitin	1101	150000

Arun's Client wants to make all Employee Id (Id) a 7-digit number in Tableau. For Example, the updated Employee Id of Priya should be 0001010. Can you suggest any way how Arun can achieve this for all Employees in Tableau? Write steps along with output screenshot. [6 Marks]

2. Analyse the Us crime dataset link given below and provide appropriate the data visualization report
   a. which State has the highest crime rate ?
   b. what type of weapon is mostly used in the crimes ?
   c. Highest victim rate belong to which State?
   Link:(https://drive.google.com/drive/u/0/folders/1p7qiSAzGe7fvEzhfn0VTXH_5HCx4pyLN)
   [6Marks]

3. Demonstrate pareto chart using tableau inbuilt dataset Sample superstore? [6 Marks]
4. Using IPL dataset link given below perform join operation to merge table information as per requirement for below given queries.
   a. Orange cap holder for all season
   b. Man of the match of all season
   c. Man of the Series of all season

   Link:(https://drive.google.com/drive/u/0/folders/1azDc8j0wPi-qES3WGnsoYICGthBr3mKq)

   [6 Marks]

5. Perform Gantt Chart using the inbuilt dataset in tableau sample superstore? [6 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-2

1. Using IPL dataset link given below perform join operation to merge table information as per requirement for below given queries.
   a. Purple cap holder for all season.
   b. Man of the match of all season
   c. Man of the Series of all season

   Link:(https://drive.google.com/drive/u/0/folders/1azDc8j0wPi-qES3WGnsoYICGthBr3mKq)

   [5 Marks]
2. Perform Treemaps and grouping using the below given dataset for analysing the crime rate using tableau?
   Link:(https://drive.google.com/drive/u/0/folders/1p7qiSAzGe7fvEzhfn0VTXH_5HCx4pyLN)
   [5 Marks]

3.Create a calculated field named 'Date Difference' which is difference between 'Order Date' and 'Ship Date' in Sample Superstore [5 marks]

4.Perform Waterfall Chart the inbuilt dataset in tableau sample superstore? [5 Marks]

5.Analyse the Us crime dataset link given below and provide appropriate the data visualization report
   a. which State has the highest crime rate ?
   b. what type of weapon is mostly used in the crimes ?
   c. Highest victim rate belong to which State?
   Link:(https://drive.google.com/drive/u/0/folders/1p7qiSAzGe7fvEzhfn0VTXH_5HCx4pyLN)
   [5 Marks]

6.Perform Scatter plot using the inbuilt dataset in tableau sample superstore? [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-3

1. How will you understand dimensions and measures in tableau? Elaborate it with discrete and continuous types. [5 Marks]
2. Using Sample_Superstores dataset find the Top Product Subcategories by Sales Within Each Delivery Method. Which Subcategory Is Ranked #2 for First-class Ship Mode? [5 Marks]
3. Explain the difference between Tableau Worksheet, Dashboard, Story and Workbook? [5 Marks]
4. What is a parameter in Tableau? Give an example. Intricate the steps involved in creating a parameter. [5 Marks]
5. What is a calculated field, and how will you create one? [5 Marks]
6. Take any dataset of your choice, create an interactive dashboard with the following (exclude IPL and SuperStores Dataset)
    a) Line Chart
    b) Dual Axis Chart
    c) Treemaps
    d) Indexing (Display top five records)
    e) Pie Charts . [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-4

1.What are the different joins performed in Tableau? Elaborate on the difference between .twb and .twbx files in Tableau. [5 Marks]

2.How do you create a blended axis charts? Explain it with step-by-step procedure. [5 Marks]

3.Which visualization will be used in the given scenarios? Justify your answer

a) To show aggregated sales totals across a range of product categories and sub-categories
b) To show the duration of events or activities
c) To show quarter wise profit growth. [5 Marks]

4.Differentiate between Treemaps and Heatmaps in Tableau. Explain it using an example [5 Marks]

5.How can you display the top five and bottom five sales in the same view? [5 Marks]

6.Take any dataset of your choice, create an interactive dashboard with the following (exclude IPL and SuperStores Dataset)

f) Bar Chart
g) Dual Axis Chart
h) Parameter
i) Calculated Fields
j) Indexing (Display top five records). [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-5

1. Perform and interpret the following graphs using Tableau
    a) Bar chart
    b) Line chart
    c) Box plot

[5 Marks]

2. Differentiate Tableau and Excel with example.

[5 Marks]

3. Display the following graphs and give the correct explanation.
    a) Tree Map
    b) Pie chart
    c) Area map
    d) Grouping

[5 Marks]

4. Analysis the Cricket dataset and import the images in the tableau workbook.

[5 Marks]

5. Differentiate Tableau and Power BI with examples.

[5 Marks]

6. Using Sample Super Store dataset, Perform the following
    a) Display the Top 15 Customers of the Store
    b) Display the graphs which have only numeric values in the axis.
    c) Display the commission earned by the Store
    d) Perform Dual Axis Graph
    e) Interpret the above mentioned questions.

[5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-6

1. Perform the following graphs and interpret them.
    a) Stacked Bar
    b) Tree maps and grouping
    c) Box plot

[5 Marks]

2. Differentiate Tableau vs Excel and Power BI

[5 Marks]

3. Using cricket dataset, perform the following
    a) Do the player wise statistics, using players name
    b) Calculate average Bowling and Batting rate season wise.
    c) Display the average fours and sixes of players season wise by graphs.
    d) Import the players' image into the Tableau workbook.

[5 Marks]

4. Using Sample Super Store dataset, Perform the following
    a) Display the Top 15 Customers of the Store
    b) Display the graphs which have only numeric values in the axis.
    c) Display the commission earned by the Store
    d) Perform Dual Axis Graph
    e) Interpret the above mentioned questions.

[5 Marks]

5. Display the following Graphs using Sample Store Dataset and give the interpretation.
    a) Bubble graphs
    b) Donut Graphs
    c) Scatter Plot
    d) Dual Axis Graph
    e) Histograms

[5 Marks]

6. Arun has the following data of Employees in CSV format

Emp_name	ID	Salary
Ravish	10	100000
Suresh	101	200000
Priya	1010	500000
Neha	10101	700000
Nitin	1101	150000

Arun’s Client wants to make all Employee Id (Id) a 7-digit number in Tableau. For Example, the updated Employee Id of Priya should be 0001010. Can you suggest any way how Arun can achieve this for all Employees in Tableau? Write steps along with output screenshot.

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-7

1. Differentiate between Tableau Public and Tableau Desktop? Elaborate on the difference between .twb and .twbx files in Tableau. [5 Marks]

2. How do you create a blended axis chart in Tableau? Explain it with step-by-step procedure. [5 Marks]

3. Which visualization will be used in the given scenarios and justify your answer:

   a. To show aggregated sales totals across a range of product categories and sub-categories.

   b. To show the duration of events or activities.

   c. To show quarter-wise profit growth. [5 Marks]

4. Differentiate between Treemaps and Heatmaps in Tableau. Explain it using an example. [5 Marks]

5. How can you display the top five and bottom five sales in the same view in Tableau? [5 Marks]

6. Take any dataset of your choice (excluding IPL and SuperStores Dataset) and create an interactive dashboard with the following components:

   a. Bar Chart

   b. Dual Axis Chart

   c. Parameter

   d. Calculated Fields

   e. Indexing (Display top five records). [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-8

1. Perform and interpret the following graphs using Tableau:

    a. Bar chart

    b. Line chart

    c. Box plot [5 Marks]

2. Differentiate Tableau and Excel with an example. [5 Marks]

3. Display the following graphs and give a correct explanation: a. Tree Map b. Pie chart c. Area map d. Grouping [5 Marks]

4. Analyze the Cricket dataset and import images into the Tableau workbook. [5 Marks]

5. Comment on various products of Tableau Software Company and its Uses. [5 Marks]

6. Using the Sample Super Store dataset, perform the following tasks:

    a. Display the Top 15 Customers of the Store

    b. Display the graphs that have only numeric values on the axis

    c. Display the commission earned by the Store

    d. Perform Dual Axis Graph

    e. Interpret the above-mentioned questions. [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-9

1.What is filter? How many different types of filters exist in Tableau [5 marks]

2.Compare Tableau Public and Tableau Desktop [5 marks]

3.Create a calculated field named ‘Date Difference’ which is difference between ‘Order Date’ and ‘Ship Date’ in Sample Superstore [5 marks]

4.Display the following graphs and give the correct explanation.

e) Tree Map
f) Pie chart
g) Area map
h) Grouping [5 marks]

5. How do you create a blended axis chart in Tableau? Explain it with step-by-step procedure. [5 Marks]

6.Which visualization will be used in the given scenarios and justify your answer:

a. To show aggregated sales totals across a range of product categories and sub-categories.
b. To show the duration of events or activities.
c. To show quarter-wise profit growth. [5 Marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-10

1.Perform the following graphs in Tableau and interpret them:

a. Stacked Bar

b. Tree maps and grouping

c. Box plot [5 Marks]

2.Differentiate Tableau vs. Excel and Power BI. [5 Marks]

3.Using the cricket dataset, perform the following tasks:

a. Do player-wise statistics using players' names.

b. Calculate the average Bowling and Batting rate season-wise.

c. Display the average fours and sixes of players season-wise using graphs.

d. Import the players' images into the Tableau workbook. [5 Marks]

4.Using the Sample Super Store dataset, perform the following tasks:

a. Display the Top 15 Customers of the Store

b. Display the graphs that have only numeric values on the axis

c. Display the commission earned by the Store

d. Perform Dual Axis Graph

e. Interpret the above-mentioned questions. [5 Marks]

5.Create a calculated field of your choice and mention the steps to create the calculated filed [5 marks]

6.Comment on Live and Extract Data Connections. Also differences between Tableau Public and Tableau Desktop [5 marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-11

1.Choose a dataset of your choice and create a Tableau visualization that effectively communicates the season-wise temperature trends in a specific location. [6 marks]

2.Comment on Live and Extract Data Connections. Also differences between Tableau Public and Tableau Desktop [6 marks]

3.Using a sample dataset, build an interactive Tableau map that displays the distribution of COVID-19 cases in different regions, allowing users to filter and explore the data. [6 marks]

4.Develop a Tableau report that tracks and visualizes the progress of a marketing campaign, focusing on key performance indicators like click-through rates, conversion rates, and campaign costs. [6 marks]

5.Choose a dataset related to a specific industry (e.g., e-commerce, healthcare, finance) and create a Tableau dashboard that provides insights and recommendations for optimizing operations in that industry. [6 marks]

SQL AND DATA VISUALISATION (INT-350) CA-3

Set-12

1. Use Tableau to analyze the performance of a sports team over multiple seasons, including wins, losses, and player statistics. Provide insights into the team's strengths and weaknesses. [6 marks]

2.Create a Tableau dashboard that visualizes stock market data, allowing users to explore historical stock prices, trading volumes, and trends in selected companies. [6 marks]

3.What is filter? How many different types of filters exist in Tableau [6 marks]

4.Develop a Tableau report that displays the distribution of renewable energy sources in a selected region, with a focus on the growth of solar and wind power. [6 marks]

5.Create a Tableau dashboard for a non-profit organization that visualizes donation trends, donor demographics, and the impact of fundraising campaigns. [6 marks]

Student List with Assigned Sets

Sr. No	Registration Number	Name of the Student	Roll Number	Set Allocation
1	12113501	Shubham Kumar	RK21UTA01	SET-1
2	12112282	Palli Sai Kiran	RK21UTA02	SET-2
3	12112093	Khurram Shahin	RK21UTA03	SET-3
4	12111724	Shahriar Mumin Khan	RK21UTA04	SET-4
5	12113102	Annamdevula Ravi	RK21UTA05	SET-5
6	12113229	Gummudu Kishore Kumar	RK21UTA06	SET-6
7	12109994	Priyanshu Singh	RK21UTA07	SET-7
8	12110145	Prathipati Venkatesh	RK21UTA08	SET-8
9	12110626	Marlakunta Kedhareswer Naidu	RK21UTA09	SET-9
10	12111396	Darsi Venkat Charan	RK21UTA10	SET-10
11	12100915	Nived Suresan A	RK21UTA11	SET-11
12	12100863	C S Charithartha Sai	RK21UTA12	SET-12
13	12109514	Nikhil Singh	RK21UTA13	SET-1
14	12109665	T Tanusree	RK21UTA14	SET-2
15	12109211	Karri John Pradeep Reddy	RK21UTA15	SET-3
16	12108024	Anushka Kashyap	RK21UTA16	SET-4
17	12108472	Gopidesi Vinod Kumar	RK21UTA17	SET-5
18	12108725	Dharani K S	RK21UTA18	SET-6
19	12106386	Pentyala Kumar Govindu	RK21UTA19	SET-7
20	12106729	Kriti Mishra	RK21UTA20	SET-8
21	12106692	Garvit Joshi	RK21UTA21	SET-9
22	12107057	Yaswanth Subrahmanyam Jonnadula	RK21UTA22	SET-10
23	12107367	Shivansh Ranjan	RK21UTA23	SET-11

24	12107544	Shaik Latheef	RK21UTA24	SET-12
25	12107776	Lakshya Sharma	RK21UTA25	SET-1
26	12107627	Medam Sai Shashank	RK21UTA26	SET-2
27	12104754	Achanagari Hanu Tejesh	RK21UTA27	SET-3
28	12104652	Alexander Peter Maliyakkal	RK21UTA28	SET-4
29	12106234	Vulli B M S Pruthvi	RK21UTA29	SET-5
30	12105798	Utkrist Ark	RK21UTA30	SET-6
31	12103929	Velagalapalli Sai Kishore Chandra	RK21UTA31	SET-7
32	12115897	Kunal Yadav	RK21UTA32	SET-8
33	12115161	Mahrishi Rathore	RK21UTA33	SET-9
34	12115398	Rohan Patel	RK21UTA34	SET-10
35	12116486	Madhan Sai Thupakula	RK21UTA35	SET-11
36	12102845	Ankur Banerjee	RK21UTB36	SET-12
37	12102585	Nikhil Pathak	RK21UTB37	SET-1
38	12102610	S Surjith Subash	RK21UTB38	SET-2
39	12101918	Indukuri Satya Sudheer Varma	RK21UTB39	SET-3
40	12101692	Gurram Karthik	RK21UTB40	SET-4
41	12104702	K Somanath Sai Teja Srinivas	RK21UTB41	SET-5
42	12104879	Jarugu Mukesh Sai	RK21UTB42	SET-6
43	12107747	Mahamad Suhail	RK21UTB43	SET-7
44	12107884	Vaspari Murari	RK21UTB44	SET-8
45	12107890	Sanjana Umrao	RK21UTB45	SET-9
46	12107896	Prabhu Varun Puppala	RK21UTB46	SET-10
47	12107901	Madireddy Bharath Kumar Reddy	RK21UTB47	SET-11
48	12107624	Kanigelupula Surya Venkata Phanindra	RK21UTB48	SET-12

49	12107183	Rahul Rajput	RK21UTB49	SET-1
50	12108436	Saksham Parasher	RK21UTB50	SET-2
51	12108310	Mohammed Aasif	RK21UTB51	SET-3
52	12107941	Peyyala Akshay Mathew	RK21UTB52	SET-4
53	12109517	Adigopula Varun Kumar	RK21UTB53	SET-5
54	12109549	Pallanti Asrith Vatsal	RK21UTB54	SET-6
55	12100859	Abhinav Kumar	RK21UTB55	SET-7
56	12100568	Mandeep Singh Gill	RK21UTB56	SET-8
57	12100583	Sunkari Vedavyas	RK21UTB57	SET-9
58	12100403	Poothi Chandrasekhar Reddy	RK21UTB58	SET-10
59	12110965	Anindita Pandit	RK21UTB59	SET-11
60	12110943	Shristi Sehwag	RK21UTB60	SET-12
61	12113036	Siddharth Prahasith Bathula	RK21UTB61	SET-1
62	12112410	Nikhil Kaundal	RK21UTB62	SET-2
63	12111711	Kunal Kumar Pandit	RK21UTB63	SET-3
64	12111702	manish choudhury	RK21UTB64	SET-4
65	12112264	Bevara Hemanth Kumar	RK21UTB65	SET-5
66	12113773	Vidhya Bhusan Rath	RK21UTB66	SET-6
67	12115210	Rohan Stanislaus R	RK21UTB67	SET-7
68	12115853	Syed Faiq Husain	RK21UTB68	SET-8
69	12114879	Debasish Chandra Dey	RK21UTB69	SET-9
70	12114325	Aman Verma	RK21UTB70	SET-10