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| **Practical-2 Part A** |
| **Aim:** Program to subset report data.  **a.** Write a SAS Program to performed following task   * Program to create SAS dataset Sales with 10 observations. * EmployeeID * FirstName * LastName * Gender * Salary * Job Title[Manager, SalesManager, Sales Rep. I, Sales Rep. II etc] * Country * Birthdate * Hire Date   b. Write a program in SAS to subset the information with following operators.   1. In operator to subset information employee residential in more than one country. 2. Subset all the observations that include substring Rep. 3. Subset all observation for salary between 50000 to 100000   c. Write SAS Program to sort above dataset by country and display sorted dataset.  d. For above dataset solve the following Business Scenario    Modify above business scenario to display report with appropriate title,footnote,subtotal and grand total. |
| **Prerequisite:**Programming for Problem Solving |
| **Outcome:**To create dataset and performed data analysis and examine SAS Datasets and Library |
| Theory: |
| **Procedure:**   1. Open SAS Studio and write the SAS program |
| **Instructions:**   1. Write source code of all stored procedure 2. Copy code & paste in code section of Part B. |
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| **Part B** |
| **Code:**  **A)**  data sales;  input empid Fname $ Lname $ Gender $ salary jobtitle $ birthdate ddmmyy8. country $ hiredate ddmmyy8.;  datalines;  1 Ayush Patel M 99099 Manager 16092000 USA 09092024  2 Dhruvil Patel M 50000 HR 15052000 IND 02012022  3 Dhyanesh Patel M 80000 SalesManager 02082000 IND 03012022  4 Ajay Dabas M 60000 SalesRep 16062000 USA 03012024  5 Pavitra Maheswari M 70000 SalesRep 04042000 FRA 03012023  6 Tushar Agarwaal M 95000 SalesManager 03041999 JPN 03102025  7 Sakura Haruno F 50000 SalesRep 06011989 JPN 03012004  8 Hinata Uzumaki F 90500 Manager 08051995 USA 03122021  9 Snehil Raj M 65000 SalesRep 09012001 FRA 03012025  10 Alankar Uniyal M 99000 SalesManager 10012002 FRA 05062026  ;  **B)**  **1.**  proc print data = sales;  format birthdate ddmmyy10. hiredate ddmmyy10.;  where country in ('IND','USA');  run;  **2.**  proc print data = sales;  format birthdate ddmmyy10. hiredate ddmmyy10.;  where jobtitle like '%Rep';  run;  **3.**  proc print data = sales;  format birthdate ddmmyy10. hiredate ddmmyy10.;  where salary<=50000 and salary>=100000;  run;  **C)**  proc sort data=sales out=work.sorted\_sales;  by country;  run;  proc print data=work.sorted\_sales;  format birthdate ddmmyy10. hiredate ddmmyy10.;  run;  **D)**  title 'Sales';  footnote ' Employee Data';  proc print data = work.sorted\_sales noobs;  format birthdate ddmmyy10. hiredate ddmmyy10.;  by country;  sum salary;  run;  title;  footnote; |
| Output:   1. **Here the table is printed and date printed w.r.t to the 01JAN1960**      1. **1.**     **2.**    **3.**    **C)**    **D)** |
| **Observation & Learning:**  Learnt about various formatting methods in SAS Studio. |
| **Conclusion:**  Successfully implemented formatting and other data manipulation methods in SAS Studio. |
| **Question:**   1. **What is difference between proc print and proc contents**   **Ans:**  PROC print outputs a listing of the values of some or all of the variables in a SAS data set. PROC contents tells the structure of the data set rather than the data values.   1. **How to represent missing values in SAS Dataset**   **Ans:**  In SAS code, a blank is typically specified by enclosing a space between two quotation marks, such as “ “ or ' '. With numeric variables, a missing value is denoted with a period.   1. **List the options used in proc print and proc contents**   **Ans:**  **DIRECTORY** option in proc contents procedure prints a list of all SAS files that are in the specified SAS library. DETAILS option includes information in the output about the number of rows, number of variables, and table labels.   1. **Which statement is used to create library. Is it global statement.**   **Ans:**  LIBNAME statement is used to create library. Yes, it is a global statement. |