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1  select * from HRData
2
3  -- 1. Employee Analysis
4  -- a) List all employees along with their positions and salaries.
5
6  select EmployeeName, Position, Salary from HRData
7  -- Explanation: This query fetches the names, positions, and salaries of all employees
   from the dataset.
8
9  -- b) Find the average salary of employees by department.
10
11 select Department, avg(Salary) as avgsal
12 from HRData
13 group by Department
14 -- Explanation: The AVG() function calculates the average salary for each department
   using the GROUP BY clause.
15
16 -- c) Retrieve the details of employees whose performance score is 'Exceeds'.
17
18 select * from HRData
19 where PerformanceScore = 'Exceeds'
20 -- Explanation: This query filters employees with a performance score of 'Exceeds' and
   returns all their details.
21
22
23 -- 2. Recruitment and Employment
24 -- a) Count the number of employees recruited from each recruitment source.
25
26 select RecruitmentSource, count(*) as Employeecount
27 from HRData
28 group by RecruitmentSource
29 -- Explanation: The query groups employees by recruitment source and counts them.
30
31 -- b) List the employees who are currently active.
32
33 select EmployeeName, Position, EmploymentStatus
34 from HRData
35 where EmploymentStatus = 'Active'
36 -- Explanation: Filters active employees based on the EmploymentStatus column.
37
38 -- c) Identify employees who have terminated and their termination dates.
39
40 select EmployeeName, TerminationDate
41 from HRData
42 where TerminationDate is not null
43 -- Explanation: Checks for non-null termination dates to find terminated employees.
44
45 -- 3. Demographics and Diversity
46 -- a) Get the count of employees based on gender.
47
48 select Gender, count(*) as employeegender
49 from HRData
50 group by Gender
51 -- Explanation: Groups employees by gender and counts them.
52
53 -- b) Find the number of married, single, and divorced employees.
54
55 select MaritalStatus, count(*) as count
56 from HRData
57 group by MaritalStatus
58 -- Explanation: Groups employees by their marital status and counts each group.
59
60 -- c) Retrieve the youngest and oldest employees in the company.
61
62 SELECT top 5 EmployeeName, DateOfBirth
63 FROM HRData
64 ORDER BY DateOfBirth ASC -- Oldest Employee
65
66 SELECT top 5 EmployeeName, DateOfBirth

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67 FROM HRData
68 ORDER BY DateOfBirth DESC -- Youngest Employee
69 -- Explanation:
70 -- The TOP 5 keyword returns the five result.
71 -- The ordering (ASC or DESC) determines the oldest or youngest.
72
73 -- 4. Engagement and Satisfaction
74 -- a) List employees with an engagement survey score greater than 4.5.
75
76 select EmployeeName, EngagementSurvey
77 from HRData
78 where EngagementSurvey > 4.5
79 -- Explanation: Filters employees with high engagement survey scores.
80
81 -- b) Find the average employee satisfaction score by department.
82
83 SELECT Department, AVG(EmployeeSatisfaction) AS AvgSatisfaction
84 FROM HRData
85 GROUP BY Department;
86 -- Explanation: Computes the average satisfaction score for each department.
87
88 -- c) Identify employees with a satisfaction score of less than 3.
89
90 SELECT EmployeeName, EmployeeSatisfaction
91 FROM HRData
92 WHERE EmployeeSatisfaction < 3;
93 -- Explanation: Filters employees who have a satisfaction score below 3.
94
95 -- 5. Tenure and Experience
96 -- a) List employees who have been with the company for more than 5 years.
97
98 SELECT EmployeeName, HiringDate
99 FROM HRData
100 WHERE DATEDIFF(YEAR, CONVERT(DATE, HiringDate, 101), GETDATE()) > 5;
101 -- CONVERT(DATE, HiringDate, 101) – Converts the date in mm/dd/yyyy format (101 is the
102 -- style code).
103
104 -- b) Find employees who were hired in the same year.
105
106 SELECT YEAR(CAST(HiringDate AS DATE)) AS HiringYear,
107        STRING_AGG(EmployeeName, ', ') AS Employees
108 FROM HRData
109 GROUP BY YEAR(CAST(HiringDate AS DATE))
110 HAVING COUNT(*) > 1;
111 -- Explanation: Groups employees by their hiring year and shows names for those hired in
112 -- the same year.
113
114 -- c) Calculate the total number of employees who joined each year.
115
116 SELECT YEAR(CAST(HiringDate AS DATE)) AS HiringYear,
117        COUNT(*) AS EmployeeCount
118 FROM HRData
119 GROUP BY YEAR(CAST(HiringDate AS DATE));
120 -- Explanation: Groups employees by the year of hiring and counts them.
121
122
123
124

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