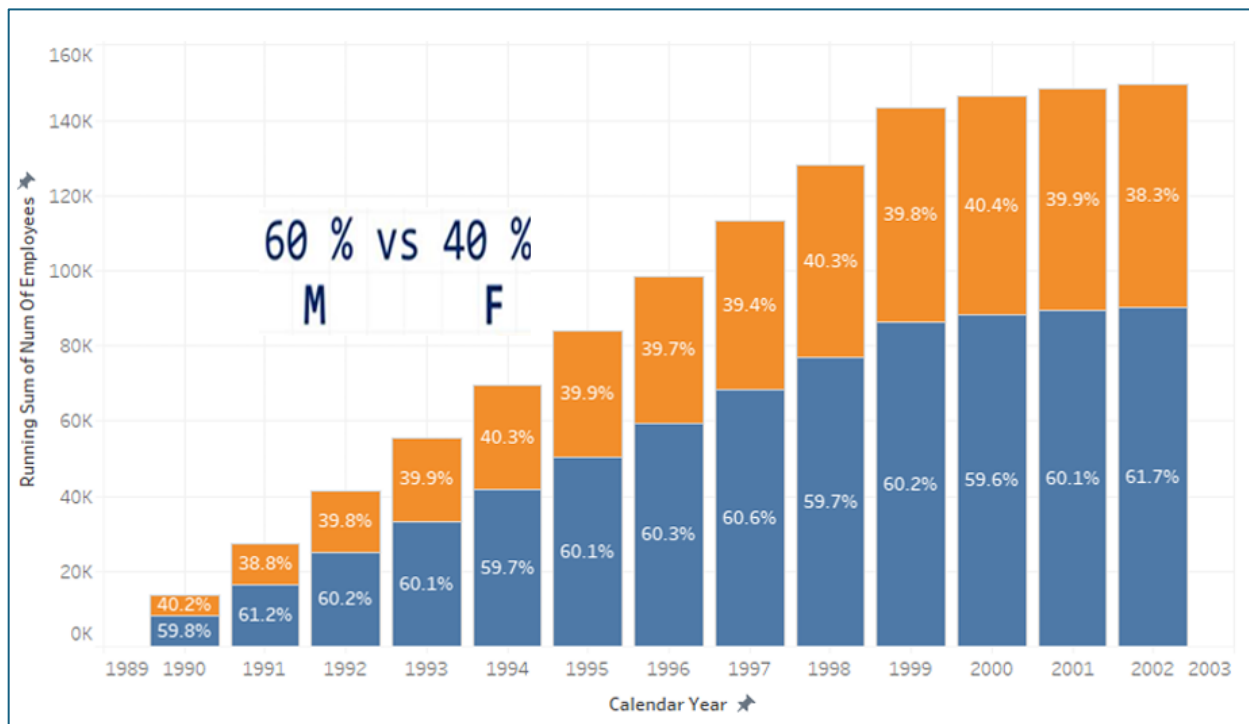


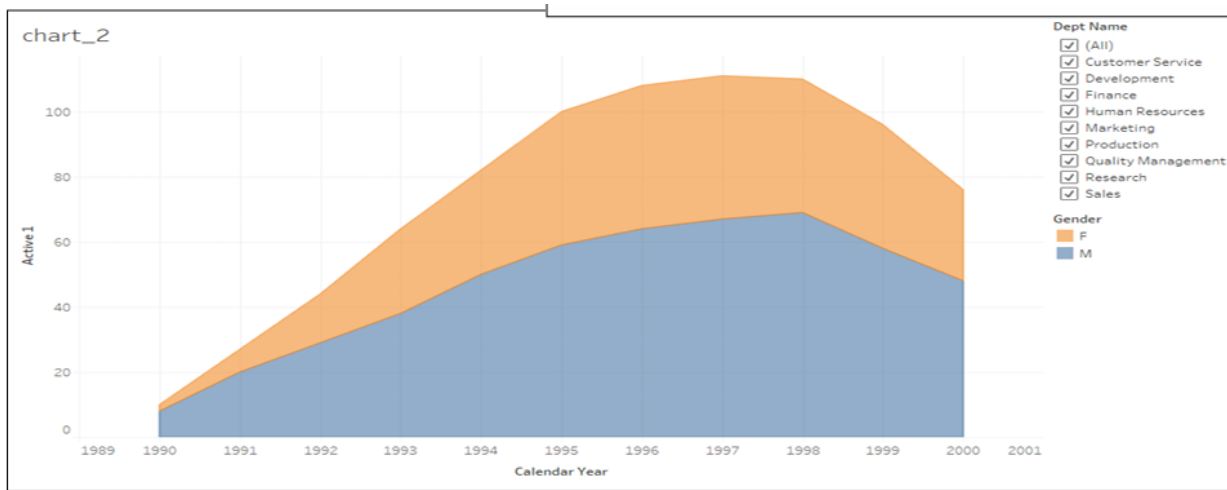
**QUESTION 1: Create a visualization that provides a breakdown between the male and female employees working in the company each year.**

```
SELECT EXTRACT(YEAR FROM d.from_date) AS Calendar_Year, e.gender, COUNT(e.emp_no) AS num_of_employees
FROM t_dept_emp AS d
JOIN t_employees AS e ON d.emp_no = e.emp_no
GROUP BY gender, Calendar_Year
HAVING Calendar_Year >=1990
ORDER BY Calendar_Year;
```



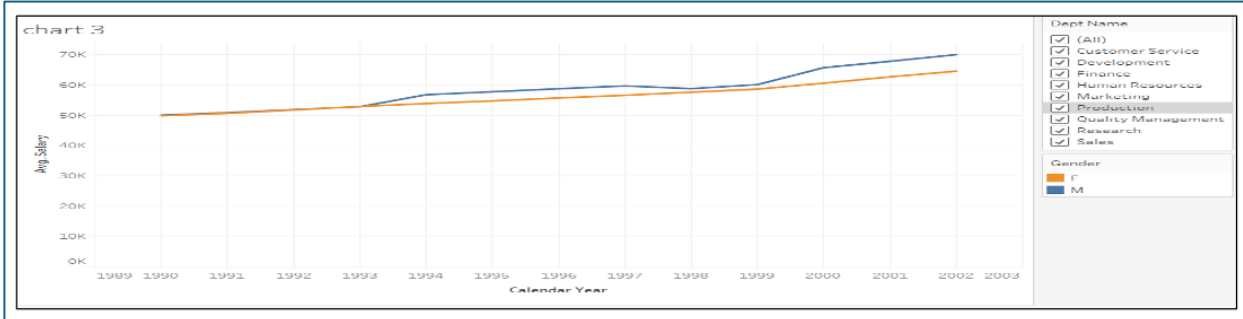
**QUESTION 2: Compare the number of male managers to the number of female managers from different departments for each year, starting from 1990.**

```
SELECT d.dept_name, ee.gender, dm.emp_no, dm.from_date, dm.to_date, ee.calendar_year,
CASE
    WHEN YEAR(dm.to_date) >= ee.calendar_year AND YEAR(dm.from_date) <= ee.calendar_year THEN 1
    ELSE 0
END AS active_1
FROM (SELECT YEAR(hire_date) AS calendar_year FROM t_employees GROUP BY calendar_year) AS ee
CROSS JOIN t_dept_manager dm
JOIN t_departments d ON dm.dept_no = d.dept_no
JOIN t_employees ee ON dm.emp_no = ee.emp_no
ORDER BY dm.emp_no, ee.calendar_year;
```



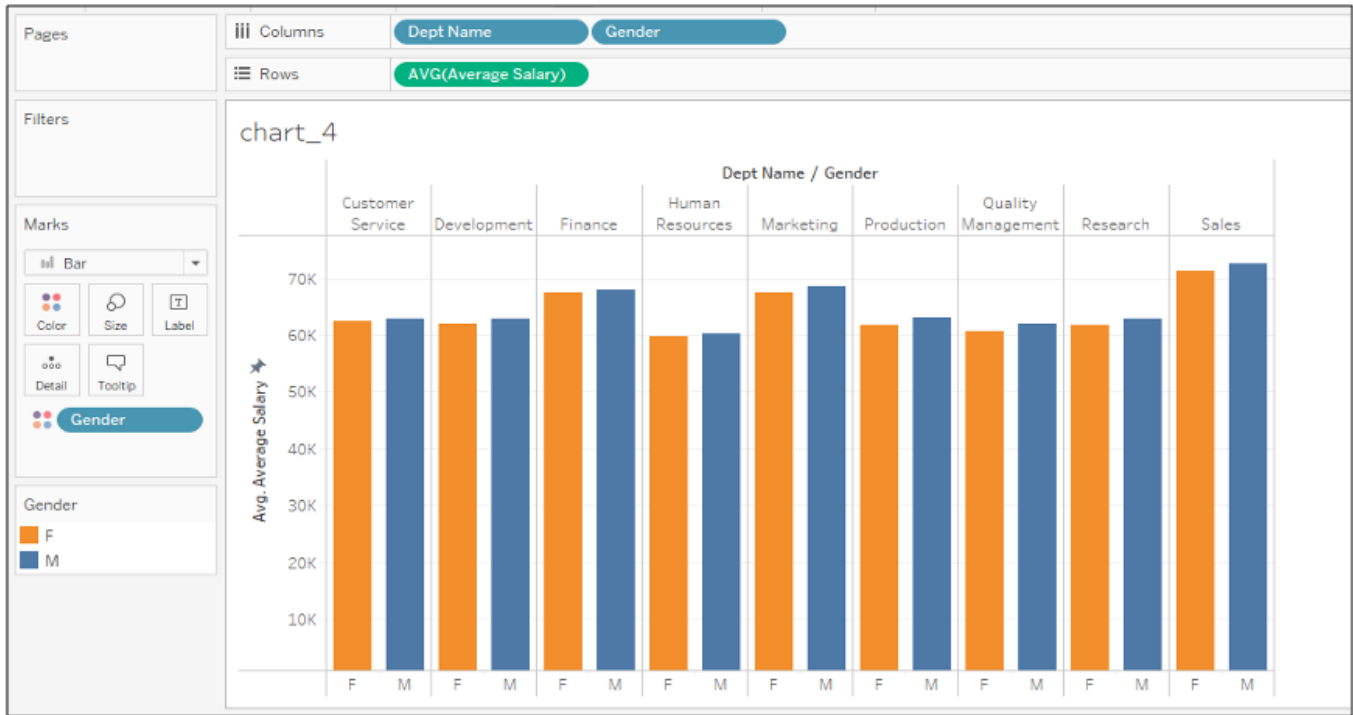
**QUESTION 3: Compare the average salary of female versus male employees in the entire company until year 2002, and add a filter allowing you to see that per each department.**

```
SELECT ee.gender, d.dept_name, round(AVG(s.salary),2) AS salary, YEAR(s.from_date) AS calendar_year
FROM t_salaries s
JOIN t_employees ee ON ee.emp_no = s.emp_no
JOIN t_dept_emp de ON ee.emp_no = de.emp_no
JOIN t_departments d ON de.dept_no= d.dept_no
GROUP BY ee.gender, d.dept_no, calendar_year
HAVING calendar_year <=2002
ORDER BY d.dept_no;
```



→ The average salaries of male and female employees were similar until 1993, and after that male employees were paid more.

**QUESTION 4: Create a SQL stored procedure that will allow you to obtain the average male and female salary per department within a certain salary range. Let this range be defined by two values the user can insert when calling the procedure.**



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