**Questions**

1. **IF Function**:
   * Determine if employees are earning above or below $50,000. Use the IF function to display "Above" or "Below".
   * ANS
   * =IF(F2>50000,"above","below")
2. **IFS Function**:
   * Assign a performance rating based on the number of project hours: "Excellent" for 50 or more hours, "Good" for 40-49 hours, "Average" for 30-39 hours, and "Poor" for below 30 hours.
   * ANS
   * =IFS(J2>=50,"Excellent",AND(40<=J2,J2<50),"Good",AND(30<=J2,J2<40),"Average",J2<30,"Poor")
3. **AND Function**:
   * Check if employees from the HR department and North region have sales above $15,000.
   * ANS
   * =IF(AND(E2="HR",I2="North",H2>15000),"True","False")
4. **OR Function**:
   * Identify employees who are either in the IT department or have a salary above $60,000.
   * ANS
   * =IF(OR(E2="IT",H2>60000),"True","False")
5. **NOT Function**:
   * Determine if employees are not from the Marketing department.
   * ANS
   * =IF(E2<>"Marketing","True","False")
6. **SUMIF Function**:

* Calculate the total salary of employees from the Sales department.
* ANS
* =SUMIF(E2:E201,"Sales",F2:F201)

1. **SUMIFS Function**:
   * Calculate the total salary of employees in the IT department who have more than 35 project hours.
   * ANS
   * =SUMIFS(F2:F201,E2:E201,"IT",J2:J201,">35")
2. **COUNTIF Function**:

* Count the number of employees in the HR department.
* ANS
* =COUNTIF(E2:E201,"HR")

1. **COUNTIFS Function**:

* Count the number of female employees in the Finance department.
* ANS
* =COUNTIFS(D2:D201,"F",E2:E201,"Finance")

1. **AVERAGEIF Function**:

* Find the average salary of employees in the Marketing department.
* ANS
* =AVERAGEIF(E2:E201,"Marketing",F2:F201)

1. **AVERAGEIFS Function**:
   * Find the average sales for employees in the North region with project hours above 40.
   * ANS
   * =AVERAGEIFS(H2:H201,I2:I201,"North",J2:J201,">40")
2. **MAXIFS Function**:
   * Determine the maximum salary among employees in the South region.
   * ANS
   * =MAXIFS(F2:F201,I2:I201,"South")
3. **MINIFS Function**:
   * Find the minimum number of project hours for employees in the Finance department.
   * ANS
   * =MINIFS(J2:J201,E2:E201,"Finance")
4. **VLOOKUP Function**:

* Use VLOOKUP to find the salary of an employee based on their ID.
* ANS for ID = 7
* =VLOOKUP(A8,Sheet1!A2:J202,6,FALSE)

1. **HLOOKUP Function**:

* Use HLOOKUP to find the joining date of employees based on their department.
* ANS for Finance
* =HLOOKUP(G1,G1:G201,MATCH(T22,E1:E201,0),FALSE)

1. **INDEX and MATCH Functions**:

* Use INDEX and MATCH to find the sales amount for a specific employee.
* ANS
* =ARRAY\_CONSTRAIN(ARRAYFORMULA(INDEX(A1:J201,5,8,FALSE)),1,1)

1. **Conditional Formatting**:
   * Highlight cells in the Salary column that are above $60,000.
2. **Pivot Table**:
   * Create a pivot table to summarize average sales by region and department.
3. **Data Validation**:
   * Set up data validation to allow only dates after 2015-01-01 in the Joining Date column.
4. **Chart Creation**:
   * Create a bar chart to visualize the total sales by department.