**Learner Instructions**

| **Scenario** |
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You are a Data Analyst in the HR department at GenTech, a global IT company. The HR team has been keeping track of employee performance, salaries, and training data in shared files. Over time, these files have been updated by different team members, resulting in errors, missing information, and inconsistencies.

Your manager has asked you to clean and organise the data, analyse key trends, and create a dashboard to present your findings. This project is important for identifying employee trends, evaluating training programmes, and helping the company make better decisions about salaries and resources.

| **Directions** |
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1. **Download the Dataset**

Open **EXCEL - 10 - Excel: End of Module Assessment/Project - Learner Dataset** which contains the following tabs:

* **Employee Data:** Information about employees, including salaries, performance, and training details.
* **Training Programme Data**: Information about available training courses.

**Download** the file to your computer and open it with Excel.

1. **Follow the detailed instructions** in the next section to complete the assessment. *Ensure you complete each section sequentially, as the tasks build on the results from the previous sections****.*** Use the following tools and functions where needed:

* **Data Cleaning**: TRIM, CLEAN, SUBSTITUTE, Remove Duplicates
* **Lookup Functions**: VLOOKUP, INDEX, MATCH
* **Conditional Functions**: IF, AND, OR
* **Basic Functions**: SUM, AVERAGE, COUNT, MIN, MAX
* **Pivot Tools**: Pivot Tables, Pivot Charts

1. **Use formatting** (e.g., bold headers, currency formatting) to ensure your work is clear and visually organised.
2. **Save your completed file as:** Firstname\_Lastname\_Excel\_Assessment\_Project.xlsx. The file must include:

* Cleaned **Employee Data**.
* Lookup and conditional function results.
* A **Summary** worksheet.
* A **Pivot Summary** worksheet.
* A **Dashboard** worksheet.

1. **Submit the file on Canvas.**

**Good Luck!**

| **Task Details** |
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| **Section 1: Data Cleaning** |
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1. **Remove Duplicates:**
   * Open the **Employee Data tab**.
     + Identify and remove duplicate rows based on all columns.
2. **Fix Formatting Issues:**
   * Standardise the **Department column** by capitalising all entries.
   * Remove extra spaces from the Name column.
3. **Handle Missing Data:**
   * Replace missing values in the Performance Rating column with the average rating for employees in the same department. Round off the value to the nearest whole number if the average is a decimal value.

| **Section 2: Lookup Functions** |
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1. **Add Training Cost:**

* In the Employee Data tab, create a new column named **Training Cost (£).**
* Use a lookup function (e.g., VLOOKUP or INDEX-MATCH) to pull the **Cost (£)** from the **Training Programme Data** tab, matching the **Last Training Completed** column.

1. **Add Training Category:**

* Create another column in the **Employee Data tab** named **Training Category.**
* Use a lookup function (e.g,. VLOOKUP or INDEX-MATCH) to pull the **Course Category** from the **Training Programme Data tab.**

1. **Calculate Total Compensation:**

* Add a column in the Employee Data tab named **Total Compensation (£).**
* Formula: Salary (£) + Training Cost (£).

| **Section 3: Conditional Functions** |
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1. **Categorise Performance**:

* Add a column in the **Employee Data** tab named **Performance Category.**
* Use a conditional formula to assign categories based on **Performance Rating:**
  + "High Performer" for ratings of 4 or 5.
  + "Needs Improvement" for ratings of 1 or 2.
  + "Satisfactory" for a rating of 3.

1. **Create a New Worksheet**:

* Add a new worksheet named **Summary**.

1. **Set Up the Table**:

* Create headers: Department, Total Employees, Average Salary (£), and Average Performance Rating.

1. **Populate Data for Departments**:

* Populate unique department names using the filter tool to get department names.

1. **Use Conditional Functions to Calculate Summaries**:

* Use Excel conditional functions(COUNTIF, SUMIF, AVERAGEIF, etc) to:
  + Count the total number of employees for each department.
  + Calculate the average salary for employees in each department - Round it to the nearest whole number.
  + Calculate the average performance rating for each department - Round it to the nearest whole number.

1. **Format and Check Results**:

* Ensure the table is neatly formatted with consistent alignment and clear labels.
* Apply appropriate formatting for currency and numerical values.

| **Section 4: Pivot Tables and Charts** |
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1. **Create a Pivot Table for Average Total Compensation**:

* Go to the **Employee Data** tab.
* Insert a pivot table to summarise the **average Total Compensation(£)** by Department.
* Place this pivot table in a new worksheet named **Pivot Summary**.
* Position the pivot table at the top of the worksheet (e.g., starting at cell A1).

1. **Create a Pivot Table for Training Category Count**:

* Using the same **Employee Data** tab, insert a second pivot table to count the number of employees in each Training Category.
* Add this pivot table to the same **Pivot Summary** worksheet.
* Position it below or beside the first pivot table.

1. **Create Pivot Charts**:

* Based on the first pivot table , create a bar chart to visualise the distribution of average salaries across departments.
* Based on the second pivot table, create a column chart to visualise the count of employees for each training category.
* Position the chart in the **Pivot Summary** worksheet.

| **Section 5: Dashboard** |
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1. **Create a Dashboard Worksheet:**

* Add a new worksheet named **Dashboard**.
* Move your pivot charts from the **Pivot Summary** tab to this worksheet.

1. **Organise and Format:**

* Arrange elements logically to provide an overview of key metrics.
* Add a slicer to filter pivot charts by Department.
* Add a clear title (e.g., "GenTech HR Dashboard").
* Apply consistent formatting for professionalism and readability.

| **Bonus Tasks (If you complete the other tasks within 45 minutes)** |
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1. **Update the Dashboard Worksheet:**

* Display a chart to show the average salary based on the role.
* Display a chart to show the average experience in the company based on the role.
* *Remember that to create a chart for the dashboard, you’d need to first create the relevant pivot tables, create the chart and then move it to the dashboard!*