**Excel Practice Questions**

**Formula and Function**

**Questions**

1. Using 'Inventory.xlsx':
   * Add the values of cell E2, F2, and G2 and store in H2.
   * Copy the formula for the remaining rows.
   * Multiply the values of cell H2 and D2 and store in I2.
   * Copy the formula for the remaining rows.
   * Use autosum to summarize the columns D to I.
   * Find the min and max value for unit price.
2. Update 'Employee Details.xlsx' based on the following:
   * Calculate years of service of the employee.
   * Update the Full Name column based on the first name and last name provided.
   * Separate the value of phone extension (last 4 digits) and building (character at the start of the location) from the Office Location column.
   * Update the email id of the employees in the format firstname\_lastname@companyname.com.
3. Update 'Financial Statement.xlsx' workbook based on the following:
   * Calculate Gross Sales = Units Sold \* Sale Price.
   * Calculate Sales = Gross Sales \* Discount.
   * Profit = Sales \* COGS.
   * Find month number, month name, and year using date functions.

**Links**

1. [Dataset for Inventory](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/2+-+Formulas+%26+Functions/Inventory.xlsx)
2. [Dataset for Employee Details](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/2+-+Formulas+%26+Functions/Employee+Details.xlsx)
3. [Dataset for Financial Statement](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/2+-+Formulas+%26+Functions/Financial+Sample.xlsx)

# Title: Reference Functions Assignment

Task 1: Library Information Lookup

* **Instructions**: Create a sheet to find information on books based on the ISBN number provided. Use named ranges, LOOKUP function, and MATCH function.
* **Dataset Link**: [Library.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Reference+Function/Library.xlsx)

Task 2: Mileage Calculation

* **Instructions**: Find the miles between two cities using INDEX and MATCH functions, and calculate the sum of miles.
* **Dataset Link**: [Mileage Trip.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Reference+Function/Mileage+Trip.xlsx)

Task 3: Part Number Lookup

* **Instructions**: Find the part number using the model year and model number provided. Use HLOOKUP, VLOOKUP, and MATCH functions.
* **Dataset Link**: [Part Number.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Reference+Function/Part+Number.xlsx)

**Title: Conditional Formatting Assignment**

Task 1: Speed Workbook

* **Instructions**:
  1. Use a Color Scale and give RED color to the highest value.
  2. Apply Blue Color with BOLD format if values in the speed column lie between 50 and 70.
  3. Choose any color and apply it to all duplicate values.
  4. Format cells based on their values using a 2-color scale.
* **Dataset Link**: [Speed.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Conditional+Formatting/Speed.xlsx)

Task 2: Pokemon Workbook

* **Instructions**:
  1. Highlight all cells whose value is equal to 48.
  2. Apply rules to the HP column to highlight values greater than 65.
  3. Apply highlighting rules for Pokemon names containing the text "Ditto."
* **Dataset Link**: [Pokemon.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Conditional+Formatting/Pokemon.xlsx)

Task 3: Conditional Format Workbook

* **Instructions**:
  1. Apply a customized color to values less than 0 (zero).
  2. Format cells with percent change less than 5% in either direction (i.e., from -5% to 5%).
  3. Highlight prices in column B that are greater than a specified threshold price.
  4. Highlight prices higher than $105 in red, higher than $100 in orange, and higher than $99 in yellow.
* **Dataset Link**: [Conditional-Formatting.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Conditional+Formatting/Conditional-Formatting.xlsx)

**Title: Logical Functions Assignment**

Task 1: Test Scores Workbook

* **Instructions**: Using 'Test Score If.xlsx', create an IF function to evaluate student performance based on a benchmark. If the average grade is less than the benchmark, display "NEED FOR IMPROVEMENT"; otherwise, display "KEEP IT UP."
* **Dataset Link**: [Test Scores If.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Logical+Function/Test+Scores+If.xlsx)

Task 2: Card Penalties Workbook

* **Instructions**: Using 'Card Penalties.xlsx', create a nested IF formula in cell E2 to determine the action based on yellow cards:
  + If yellow cards >= 30, fine is 10% of salary.
  + If yellow cards >= 10, fine is 2% of salary.
  + If yellow cards < 10, insert "No Action."
  + Display fines with "Fine of" before the calculated amount.
* **Dataset Link**: [Card Penalties.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Logical+Function/Card+Penalties.xlsx)

**Data Visualization Assignment**

Task 1: Math Quiz Analysis

1. **Stacked Column Chart**:
   * **Objective**: Create a stacked column chart to show the difference in quiz marks of students.
   * **Requirements**:
     + Add data from the table into the chart.
     + Include axis titles and a chart title.
2. **3D Clustered Bar Chart**:
   * **Objective**: Highlight the marks of only the last two quizzes.
   * **Requirements**:
     + Modify layout to include chart title, gridlines, and legends on the left side of the chart.

Dataset Link:

* [Math Quiz.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Data+Visualization/Math+Quiz.xlsx)

Task 2: Car Sales Visualization

1. **Bar Chart for Sales Details**:
   * **Objective**: Create a bar chart reflecting the sales details of cars.
   * **Requirements**:
     + Add pictures of the cars to the chart.
     + Save this chart as a template.

Dataset Link:

* [Car Sales.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Data+Visualization/Car+Sales.xlsx)

Task 3: Food Habits of India

1. **Pie Charts**:
   * **Objective**: Create different pie charts to highlight the food habits of people in India.
   * **Requirements**:
     + Add data labels on the charts.

Dataset Link:

* [Food Habits.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Data+Visualization/Food+Habits.xlsx)

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**Title: Pivot Table Assignment**

Task 1: Solar Panel Report

1. **Create a Pivot Table**:
   * **Objective**: View the sum of installations and output in kW according to year, quarter, and month.
   * **Additional Field**: Create an "Average kW" field for calculations.
   * **Chart**: Generate a chart to visualize the sum of installations and output in kW.
2. **Average kW Report**:
   * **Objective**: Create a report and chart to view the sum of average kW according to year, quarter, and month.

Dataset Link:

* [Solar Panel.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/Pivot+Table/Solar+Panel.xlsx)

Task 2: Inventory Report

1. **Products Report**:
   * **Objective**: Display a list of all products, showing each store's inventory and a grand total by product and by store.
2. **Vendors Report**:
   * **Objective**: Display a list of all vendors, showing each store's inventory of that vendor's product, along with a grand total by vendor and by store.

Dataset Link:

* [Inventory\_new.xlsx](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Excel/2+-+Formulas+%26+Functions/Inventory_new.xlsx)