# Excel Lookup Functions Assignment

### Easy Tasks

1. Transaction Verification

You are verifying a transaction for your company. You need to find the transaction amount for Transaction ID `1047576`. Use a lookup function to find the amount.

2. Merchant Identification

A customer has reported a discrepancy in their transaction. You need to identify the merchant name for Account Number `84815167`. Use a lookup function to retrieve this information.

3. Transaction Date Confirmation

The finance department needs to confirm the date of a specific transaction. Find the transaction date for Transaction ID `4231385` using a lookup function.

4. Category Lookup

Your team is categorizing transactions for analysis. Find the merchant category for the merchant named `Amazon` using a lookup function.

5. Transaction Status Check

A customer is inquiring about the status of their transaction. Use a lookup function to find the transaction status for Account Number `76990063`.

**Intermediate Tasks**

6. Fraud Analysis

As part of a fraud analysis, you need to determine the fraud score for a specific transaction. Use a lookup function to find the fraud score for Transaction ID `3342991`.

7. Currency Type Identification

You are preparing a report on international transactions. Find the currency type for Transaction ID `2609676` using a lookup function.

8. Risk Assessment

The risk management team needs to assess the risk level of a customer. Find the high-risk flag for Customer ID `95453` using a lookup function.

9. Transaction Remarks Retrieval

A detailed review of account transactions is required. Use a lookup function to find the transaction remarks for Account Number `91579728`.

10. Year of Transaction

For an annual financial report, you need to find the year of a specific transaction. Use a lookup function to find the year for Transaction ID `7167276`.

11. Merchant Category Retrieval

Your company is analyzing spending patterns with specific merchants. Use a lookup function to find the merchant category for the merchant named `Best Buy`.

12. Transaction Type Identification

During an audit, you need to identify the transaction type for a specific transaction. Use a lookup function to find the transaction type for Transaction ID `2609676`.

13. Branch Location Lookup

To verify the location of a transaction, you need to find the branch zip code. Use a lookup function to find the branch zip code for Transaction ID `4231385`.

14. Card Type Analysis

The finance team needs to analyze transactions by card type. Use a lookup function to find the transaction amount for transactions made with a `Credit Card`.

15. Fraud Flag Check

In a routine check, you need to determine if a transaction was flagged for fraud. Use a lookup function to find the fraud flag for Transaction ID `4231385`.

**Advanced Tasks**

16. Detailed Transaction Lookup

For a comprehensive report, you need to find multiple details for a specific transaction. Use a lookup function to find the transaction amount, merchant name, and transaction status for Transaction ID `3342991`.

17. High-Risk Transaction Identification

Identify if a transaction is high-risk. Use a lookup function with conditional logic to determine if the transaction by Account Number `84815167` is high-risk.

18. Average Transaction Analysis

Calculate the average transaction amount for a specific merchant category. Use a lookup function to find the average transaction amount for the merchant category `Clothing`.

19. Specific Remarks Retrieval:- You need to find specific transaction remarks. Use a lookup function to find the transaction remarks for transactions where the remark is `Exceeds Limit`.

20. Combined Criteria Lookup:- Find transaction amounts based on multiple criteria. Use a lookup function with concatenation to find the transaction amount for transactions with USD currency and Transfer type.

**INDEX and MATCH Tasks**

21. Customer Details Retrieval

Use INDEX and MATCH to find the customer's name and account number for the given Customer ID `15797`.

22. Transaction Amount by Merchant and Date

Use INDEX and MATCH to find the transaction amount for the merchant `Alibaba` on `2020-01-01`.

23. High Risk Flag by Customer and Date

Use INDEX and MATCH to find out if the transaction made by Customer ID `95453` on `2020-01-01` is flagged as high risk.

24. Branch Zip Code by Transaction and Date

Use INDEX and MATCH to find the branch zip code for the transaction made on `2020-01-01` with Transaction ID `2609676`.

25. Average Transaction Amount by Category and Type

Use INDEX and MATCH to calculate the average transaction amount for the category `Clothing` and transaction type `Transfer`.

**Advanced XLOOKUP Tasks**

26. Nested XLOOKUP for Detailed Information

For a comprehensive report, you need to find the transaction amount and merchant name using nested XLOOKUP. First, find the Transaction ID for Customer ID `95453`, then use this Transaction ID to find the transaction amount and merchant name.

27. Returning an Array of Values with XLOOKUP

The finance team needs a list of all transaction amounts for a specific customer. Use XLOOKUP to return an array of all transaction amounts for Customer ID `27229`.

28. Dynamic Array of Merchant Names

You need to generate a dynamic array of all unique merchant names involved in transactions flagged as fraud. Use XLOOKUP to create this list.

29. Finding Multiple Details in One Go

For an audit, retrieve the transaction date, amount, and status for Transaction ID `7167276` using a single XLOOKUP formula that returns multiple values.

30. Combining Criteria in XLOOKUP

To find the branch location and transaction remarks for a specific Transaction ID and Currency, use XLOOKUP with concatenated criteria to return the corresponding details for Transaction ID `3342991` and Currency `JPY`.