

Best Match and Lookup

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Functions description

DOUCMENT REVISION:

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| --- | --- | --- | --- |
| Date | Version | Name | Description |
| 19/04/2019 | V1.0 | Romain Alexandre | First draft |

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# Introduction

Best Match and Lookup metabot can be used to get the best match between two values (e.g. first value extracted using IQ Bot and second value in a CSV file), it uses the Levenshtein distance algorithm to determine the distance between two text values.

This metabot can be also used as a lookup search function. E.g. Process requirement: we need to get material description from an invoice copy. Description field is usually a free text field while material ID is not. IQ Bot extracts the “material ID” post process uses the lookup functionality to get material description from a CSV list.

# Notes

1. No prerequisite for this metabot, it should be self-contained
2. Uses Levenshtein distance algorithm, for more information [Levenshtein distance](https://en.wikipedia.org/wiki/Levenshtein_distance).

# Assets / Logics

Data Extraction and Format metabot contains one library: StringMatchUtility.dll, source code can be found here.

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| --- | --- | --- | --- |
| Logic Name | Inputs | Outputs | Comments |
| Get Best First Match Result | String – listFilePath  String – sourceValue  Decimal - minimumMatchingRequired | String – resultValue | listFilePath: External list file path (only 2 columns ID (unique), Value)  sourceValue: Value to compare against list  minimumMatchingRequired: Minimum matching reauirement needed |
| Get Best First Match Result With Difference | String – listFilePath  String – sourceValue  Decimal – minimumMatchingRequired  Decimal – differenceWithNextBest | String – resultValue | listFilePath: External list file path (only 2 columns ID (unique), Value)  sourceValue: Value to compare against list  minimumMatchingRequired: Minimum matching reauirement needed  differenceWithNextBest: Difference with next best entry |
| Get CSV Line Matching Search Value | String – filePath  String – searchingValue  Int - searchingColumnNumber | String – resultValue | filePath: External list file path  searchingValue: tring value to search in file  searchingColumnNumber: In which column to search  Returns the entire CSV line |
| Get Item From Specific Column | String – filePath  String – searchingValue  Int – searchingColumnNumber  Int - targetColumnNumber | String – resultValue | filePath: External list file path  searchingValue: tring value to search in file  searchingColumnNumber: In which column to search  targetColumnNumber : If searching value found column item to extract |