

Here's a description for the Get-Matcher function:

### Get-Matcher Function

This function analyzes a set of user agent strings (UAs) based on patterns defined in a JSON file. It outputs a report identifying which browser names (from the JSON file) match each UA string and the corresponding extracted tokens (based on pattern groups).

#### Parameters:

- **RegexFile** (Optional, string): Path to the JSON file containing browser name-pattern definitions. Defaults to "BrowserPatterns.json".
- **DataFile** (Optional, string): Path to the text file containing the user agent strings. Defaults to "UACHs.csv".

#### Functionality:

1. **Validates File Paths:** Checks if both the RegexFile and DataFile exist. If not, it displays a warning message and exits.
2. **Loads Data:** Reads the JSON data for patterns and user agent strings from their respective files. In case of any errors during reading, it displays an error message and exits.
3. **Initializes Results:** Creates a hash table named \$result where each key is a browser name from the JSON file and the corresponding value is an empty list.
4. **Matches User Agents:** Loops through each user agent string and performs a regular expression match against each pattern in the JSON file. If a match is found, the extracted token (based on the pattern's group) is added to the list associated with the matching browser name in the \$result hash table.
5. **Outputs Results:** Sorts the browser names in the \$result hash table alphabetically. For each browser name, it checks if any matches were found (non-empty list). If matches exist, it displays the browser name followed by a list of unique extracted tokens for that browser.

#### Example Usage:

PowerShell

```
Get-Matcher -RegexFile "BrowserPatterns.json" -DataFile "UACHs.csv"
```

This command would use the "BrowserPatterns.json" file for patterns and "CHUA.csv" for user agents, and then output a report based on the matches.

**Image from Output will look like this:**

```
PS D:\Code\51D\PSBrowser> Get-Matcher
```

```
● - - - - - Output - - - - -
```

```
○ Name: CCleaner Browser for Windows
```

```
    "CCleaner Browser"; v="126"
```

```
    "CCleaner Browser"; v="126.0."
```

```
    "CCleaner Browser";v="126"
```

```
    "CCleaner Browser";v="126.0."
```

```
    CCleaner/126.0
```

```
- - - - -
```

```
Name: Chrome
```

```
    Chrome/125.0.
```

```
    Chrome/126.0.
```

```
- - - - -
```

```
Name: Chrome for iOS
```

```
    CriOS/128.0
```

```
- - - - -
```

```
Name: Chrome Mobile
```

```
    Chrome/126.0.0.0
```

```
- - - - -
```

```
Name: Instagram for Android
```

```
    Instagram 337.
```

```
- - - - -
```

```
Name: Instagram for iOS
```

```
    Instagram 337.
```

```
    Instagram 338.
```

```
- - - - -
```

```
Name: Opera Mobile
```

```
    "OperaMobile"; v="83.1."
```

```
    "OperaMobile";v="83.1."
```

```
    OPR/83.0
```

```
    OPR/83.1
```

```
- - - - -
```

```
Name: Opera One
```

```
    "Opera"; v="112.0."
```

```
    "Opera";v="112.0."
```

```
- - - - -
```

```
○ PS D:\Code\51D\PSBrowser> █
```