

Chatbot z rozmytymi wyrażeniami regularnymi

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Fuzzy String Matching



Fuzzy String Matching

Master Table



91%

91%

81%

54%

91%

92%

| ID | First Name | Last Name | Address 1 | Address 2 | Phone | Nat ID | State | ZIP | Birthdate |
|-------|------------|-----------|--------------|-----------|-------------|------------|----------|------------|------------|
| 458 | John | Oneel | 16 M. St | Null | 516465+09 | 256489458 | Nyc | 85001_ | 10/11/1988 |
| 2398 | Jonathan | O'nil | | Norw1ch | +1578698754 | ##### | _NY | | |
| CL_96 | | John O. | Mekel Street | NY | 00000 | 25648945-8 | NEW YORK | 85001NY | OCT-11 |
| Null | j0hny | O'neal | 16m¶ | Norwich | | | | 85001-4561 | 11/10/1988 |

Fuzzy String Matching in my project

```
bool detectCityInEnglish(String message) {  
    for (final city in mainCitiesEnglish) {  
        if (partialRatio(city, message) >= 70) {  
            chooseCity = city;  
            return true;  
        }  
    }  
  
    return false;  
}
```

Fuzzy String Matching in my project

```
for (final keyWord in WeatherKeywords.englishTodayKeywords) {  
    if (partialRatio(keyWord, message) >= 60) {  
        chooseDate = DateTime.now();  
        return true;  
    }  
}
```

RegEx

example@gmail.com

@([a-zA-Z0-9_+-.]+)\.([a-zA-Z0-9_+-.]+)



RegEx in my project

```
DateTime? _extractDate(String message) {  
    final locale = chooseLanguage.locale;  
  
    final regexDateFormatMap = <RegExp, DateFormat>{  
        RegExp(r'\b(\d{1,2}/\d{1,2}/\d{2,4})\b'): DateFormat('d/M/y', locale),  
        RegExp(r'\b(\d{1,2}/\d{1,2}/\d{2})\b'): DateFormat('MM/dd/yy', locale),  
        RegExp(r'\b(\d{2,4}-\d{1,2}-\d{1,2})\b'): DateFormat('y-M-d', locale),  
        RegExp(r'\b(\d{1,2}\.\d{1,2}\.\d{2,4})\b'):  
            DateFormat('dd.MM.yyyy', locale),  
        RegExp(  
            r'\b(\d{2,4} [a-zA-Z]+ \d{1,2})\b',  
        ): DateFormat('y MMMM d', locale),  
        RegExp(r'\b(\d{1,2} [a-zA-Z]+ \d{2,4})\b'):  
            DateFormat('d MMMM y', locale),  
        RegExp(r'\b(\d{1,2} \d{1,2} \d{2,4})\b'): DateFormat('d MM y', locale),  
        RegExp(r'\b(\d{2,4} \d{1,2} \d{1,2})\b'): DateFormat('y MM d', locale),  
        RegExp(r'\b(\d{4}\.\d{1,2}\.\d{1,2})\b'): DateFormat('yyyy.MM.dd'),  
        RegExp(r'\b(\d{1,2}-[a-zA-Z]+-\d{2,4})\b'): DateFormat('d-MMM-y', locale),  
        RegExp(r'\b(\d{1,2}/\d{1,2}/\d{2,4})\b'): DateFormat('M/d/yyyy', locale),  
        RegExp(r'\b(\d{1,2}/\d{1,2})\b'): DateFormat('M/d', locale),  
        RegExp(r'\b(\d{1,2} \d{1,2})\b'): DateFormat('d MM', locale),  
        RegExp(r'\b(\d{1,2} \d{1,2})\b'): DateFormat('MM d', locale),  
        RegExp(r'\b(\d{1,2}-[a-zA-Z]+)\b'): DateFormat('d-MMM', locale),  
        RegExp(r'\b([a-zA-Z]+ \d{1,2})\b'): DateFormat('MMMM d', locale),  
        RegExp(r'\b(\d{1,2} [a-zA-Z]+)\b'): DateFormat('d MMMM', locale),  
        RegExp(r'\b(\d{1,2}\.\d{1,2})\b'): DateFormat('dd.MM', locale),  
    };  
}
```

Example of how the chatbot works

pogoda w berln jutro 15:58 ✓✓

Place Name: Berlin [DE] (52.5244, 13.4105)
Date: 2023-12-19 01:00:00.000
Weather: Clouds, zachmurzenie duże
Temp: 5.6 Celsius, Temp (min): 5.6 Celsius, Temp (max): 5.6 Celsius, Temp (feels like): 1.9 Celsius
Sunrise: null, Sunset: null
Wind: speed 5.29, degree: 236.0, gust 15.15
Weather Condition code: 804

15:58

meteorologia 20.12 w Paryżu 16:07 ✓✓

Place Name: Paryż [FR] (48.8534, 2.3488)
Date: 2023-12-20 01:00:00.000
Weather: Rain, umiarkowane opady deszczu
Temp: 9.1 Celsius, Temp (min): 9.1 Celsius, Temp (max): 9.1 Celsius, Temp (feels like): 6.8 Celsius
Sunrise: null, Sunset: null
Wind: speed 4.15, degree: 351.0, gust 9.79
Weather Condition code: 501

16:07

temperature paris today in this dey 16:05 ✓✓

Place Name: Paris [FR] (48.8534, 2.3488)
Date: 2023-12-18 19:00:00.000
Weather: Clouds, broken clouds
Temp: 3.3 Celsius, Temp (min): 3.3 Celsius, Temp (max): 5.9 Celsius, Temp (feels like): 1.0 Celsius
Sunrise: null, Sunset: null
Wind: speed 2.37, degree: 242.0, gust 7.05
Weather Condition code: 803

16:05

forecast 19 December Tokio 16:10 ✓✓

Place Name: Tokyo [JP] (35.6895, 139.6917)
Date: 2023-12-19 01:00:00.000
Weather: Rain, light rain
Temp: 6.1 Celsius, Temp (min): 6.1 Celsius, Temp (max): 6.1 Celsius, Temp (feels like): 3.9 Celsius
Sunrise: null, Sunset: null
Wind: speed 2.8, degree: 34.0, gust 2.38
Weather Condition code: 500

16:10

Errors handling

