#### **SPELLING & GRAMMAR CHECKER**

#### **Demo of App:**

https://tmccentral-

my.sharepoint.com/:v:/g/personal/habib\_urrehman\_tmcltd\_com/Eb\_DJqokq4pFj hT4YkJrAQYBwUdBD7LUx8Jo5E2KHe6qbw?e=x8ABHX

We have integrated the free version of the "LanguageTool" API into our application. Below is the rewritten code for the view and controller components.

#### **View Code:**

#### **Controller Code:**

```
sap.ui.define([
    "sap/ui/core/mvc/Controller",
    "sap/m/MessageToast",
    "sap/ui/model/json/JSONModel"
], function (Controller, MessageToast, JSONModel) {
    "use strict";

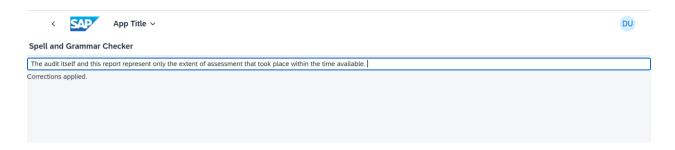
    return Controller.extend("scgc.project1.controller.View1", {
        onInit: function () {
            // Initialize the model to store the grammar check results
            var oModel = new JSONModel();
            this.getView().setModel(oModel, "grammarModel");
```

```
// Initialize debounce function
            this. debounceGrammarCheck = this. debounce(this. checkGrammar, 500);
        },
        onLiveChange: function (oEvent) {
            var oInput = oEvent.getSource();
            var sText = oInput.getValue();
            if (sText.endsWith(" ")) {
                this. debounceGrammarCheck(sText.trim(), oInput);
            }
        },
        _checkGrammar: function (sText, oInput) {
            var that = this;
            // Call the LanguageTool API
            fetch("https://api.languagetool.org/v2/check", {
                method: "POST",
                headers: {
                    "Content-Type": "application/x-www-form-urlencoded"
                },
                body: `text=${encodeURIComponent(sText)}&language=en-US&context=
sentence`
            })
           .then(response => response.json())
           .then(response => that. handleGrammarCheckResponse(oInput, response))
           .catch(error => {
                MessageToast.show("Error checking grammar and spelling.");
                console.error("Error checking grammar and spelling:", error);
            });
        },
        handleGrammarCheckResponse: function (oInput, response) {
            var oModel = this.getView().getModel("grammarModel");
            oModel.setData(response);
            var aMatches = response.matches;
            var sText = oInput.getValue();
            var sCorrectedText = sText;
            var aCorrections = [];
            if (aMatches.length > 0) {
                // Gather all corrections
                aMatches.forEach(match => {
                    if (match.replacements && match.replacements.length > 0) {
```

```
var bestReplacement = match.replacements.reduce((best,
current) => {
                            return (current.value.length > best.value.length)?
current : best;
                        });
                        aCorrections.push({
                            offset: match.offset,
                            length: match.length,
                            replacement: bestReplacement.value
                        });
                    }
                });
                // Sort corrections by offset in descending order to avoid
overlapping issues
                aCorrections.sort((a, b) => b.offset - a.offset);
                // Apply corrections
                aCorrections.forEach(correction => {
                    sCorrectedText = sCorrectedText.substring(0,
correction.offset) +
                                     correction.replacement +
                                      sCorrectedText.substring(correction.offset +
correction.length);
                });
                oInput.setValue(sCorrectedText);
            }
            var sResultText = aMatches.length > 0? "Corrections applied." : "No
issues found.";
            this.getView().byId("resultText").setText(sResultText);
        },
        _debounce: function (func, wait) {
            var timeout;
            return function () {
                var context = this, args = arguments;
                clearTimeout(timeout);
                timeout = setTimeout(function () {
                    timeout = null;
                    func.apply(context, args);
                }, wait);
            };
        }
```

```
});
});
```

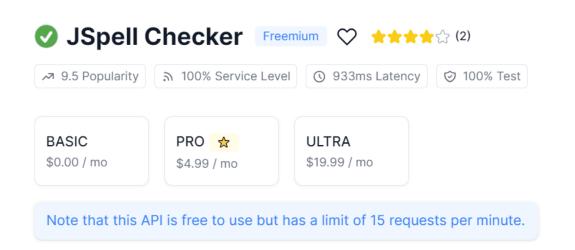
### **Fiori App View:**



# LanguageTool & other API Plans:

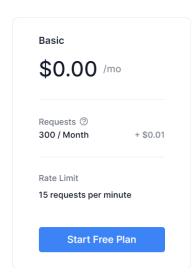
NOTE: First You have to sign up for RAPID API Key.

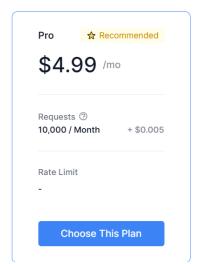
#### 1- JSPELL Checker:

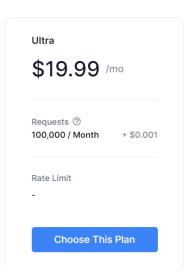


# Choose the plan that's right for You

RapidAPI partners directly with API providers to give you no-fuss, transparent pricing.







#### CODE:

import axios from 'axios';

```
const options = {
 method: 'POST',
 url: 'https://jspell-checker.p.rapidapi.com/check',
 headers: {
  'x-rapidapi-key': 'Sign Up for Key',
  'x-rapidapi-host': 'jspell-checker.p.rapidapi.com',
  'Content-Type': 'application/json'
 },
 data: {
  '0': '{',
  '1': '\n',
  '2': ' '.
  '3': '''',
  '4': '1',
  '5': 'a',
  '6': 'n',
  '7': 'g',
  '8': 'u',
  '9': 'a',
  '10': 'g',
  '11': 'e',
  '12': '''',
```

```
'13': ':',
'14': '',
'15': '''',
'16': 'e',
'17': 'n',
'18': 'U',
'19': 'S',
'20': '''',
'21': ',',
'22': '\n',
'23': '
'24': '''',
'25': 'f',
'26': 'i',
'27': 'e',
'28': '1',
'29': 'd',
'30': 'v',
'31': 'a',
'32': '1',
'33': 'u',
'34': 'e',
'35': 's',
'36': '''',
'37': ':',
'38': '',
'39': "",
'40': 't',
'41': 'h',
'42': 'i',
'43': 's',
'44': 's',
'45': ' ',
'46': 'i',
'47': 's',
'48': ' ',
'49': 'i',
'50': 'n',
'51': 't',
'52': 'r',
'53': 'e',
'54': 's',
'55': 't',
'56': 'i',
'57': 'n',
'58': 'g',
```

```
'59': '''',
'60': ',',
'61': '\n',
'62': '
'63': '''',
'64': 'c',
'65': 'o',
'66': 'n',
'67': 'f',
'68': 'i',
'69': 'g',
'70': '"',
'71': ':',
'72': ' ',
'73': '{',
'74': '\n',
'75': '
'76': '
'77': '''',
'78': 'f',
'79': 'o',
'80': 'r',
'81': 'c',
'82': 'e',
'83': 'U',
'84': 'p',
'85': 'p',
'86': 'e',
'87': 'r',
'88': 'C',
'89': 'a',
'90': 's',
'91': 'e',
'92': '''',
'93': ':',
'94': ' ',
'95': 'f',
'96': 'a',
'97': '1',
'98': 's',
'99': 'e',
'100': ',',
'101': '\n',
'102': '
'103': '
'104': '''',
```

```
'105': 'i',
'106': 'g',
'107': 'n',
'108': 'o',
'109': 'r',
'110': 'e',
'111': 'I',
'112': 'r',
'113': 'r',
'114': 'e',
'115': 'g',
'116': 'u',
'117': '1',
'118': 'a',
'119': 'r',
'120': 'C',
'121': 'a',
'122': 'p',
'123': 's',
'124': '''',
'125': ':',
'126': ' ',
'127': 'f',
'128': 'a',
'129': 'I',
'130': 's',
'131': 'e',
'132': ',',
'133': '\n',
'134': '
'135': '
'136': '''',
'137': 'i',
'138': 'g',
'139': 'n',
'140': 'o',
'141': 'r',
'142': 'e',
'143': 'F',
'144': 'i',
'145': 'r',
'146': 's',
'147': 't',
'148': 'C',
'149': 'a',
'150': 'p',
```

```
'151': 's',
'152': '''',
'153': ':',
'154': ' ',
'155': 't',
'156': 'r',
'157': 'u',
'158': 'e',
'159': ',',
'160': '\n',
'161': '
'162': '
'163': '''',
'164': 'i',
'165': 'g',
'166': 'n',
'167': 'o',
'168': 'r',
'169': 'e',
'170': 'N',
'171': 'u',
'172': 'm',
'173': 'b',
'174': 'e',
'175': 'r',
'176': 's',
'177': '"',
'178': ':',
'179': ' ',
'180': 't',
'181': 'r',
'182': 'u',
'183': 'e',
'184': ',',
'185': '\n',
'186': '
'187': '
'188': '''',
'189': 'i',
'190': 'g',
'191': 'n',
'192': 'o',
'193': 'r',
'194': 'e',
'195': 'U',
'196': 'p',
```

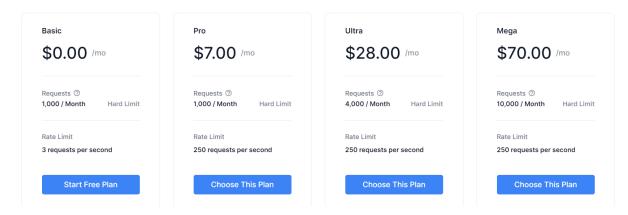
```
'197': 'p',
'198': 'e',
'199': 'r',
'200': '''',
'201': ':',
'202': ' ',
'203': 'f',
'204': 'a',
'205': '1',
'206': 's',
'207': 'e',
'208': ',',
'209': '\n',
'210': '
'211': '
'212': '''',
'213': 'i',
'214': 'g',
'215': 'n',
'216': 'o',
'217': 'r',
'218': 'e',
'219': 'D',
'220': 'o',
'221': 'u',
'222': 'b',
'223': '1',
'224': 'e',
'225': '''',
'226': ':',
'227': ' ',
'228': 'f',
'229': 'a',
'230': '1',
'231': 's',
'232': 'e',
'233': ',',
'234': '\n',
'235': '
'236': '
'237': '''',
'238': 'i',
'239': 'g',
'240': 'n',
'241': 'o',
'242': 'r',
```

```
'243': 'e',
   '244': 'W',
   '245': 'o',
   '246': 'r',
   '247': 'd',
   '248': 's',
   '249': 'W',
   '250': 'i',
   '251': 't',
   '252': 'h',
   '253': 'N',
   '254': 'u',
   '255': 'm',
   '256': 'b',
   '257': 'e',
   '258': 'r',
   '259': 's',
   '260': '''',
   '261': ':',
   '262': ' ',
   '263': 't',
   '264': 'r',
   '265': 'u',
   '266': 'e',
   '267': '\n',
   '268': '
   '269': '}',
   '270': '\n',
  '271': '}'
 }
};
try {
        const response = await axios.request(options);
        console.log(response.data);
} catch (error) {
        console.error(error);
}
```

#### 2- BING SPELL CHECK:

# Choose the plan that's right for You

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#### CODE:

```
import axios from 'axios';

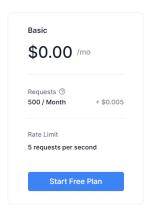
const options = {
  method: 'GET',
  url: 'https://bing-spell-check2.p.rapidapi.com/spellcheck',
  headers: {
    'x-rapidapi-key': 'Sign Up for Key',
    'x-rapidapi-host': 'bing-spell-check2.p.rapidapi.com'
  }
};

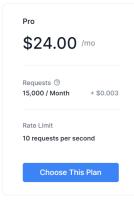
try {
    const response = await axios.request(options);
    console.log(response.data);
} catch (error) {
    console.error(error);
}
```

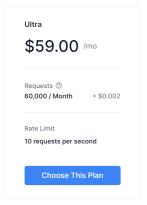
### 3- Grammarbot

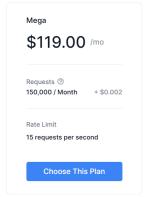
# Choose the plan that's right for You

RapidAPI partners directly with API providers to give you no-fuss, transparent pricing.









#### **CODE:**

```
import axios from 'axios';
const data = new FormData();
data.append('text', 'Susan go to the store everyday');
data.append('language', 'en-US');
const options = {
 method: 'POST',
 url: 'https://grammarbot.p.rapidapi.com/check',
 headers: {
  'x-rapidapi-key': 'Sign Up for Key',
  'x-rapidapi-host': 'grammarbot.p.rapidapi.com'
 },
 data: data
};
try {
       const response = await axios.request(options);
       console.log(response.data);
} catch (error) {
       console.error(error);
}
```

# 4- Language Tool:

