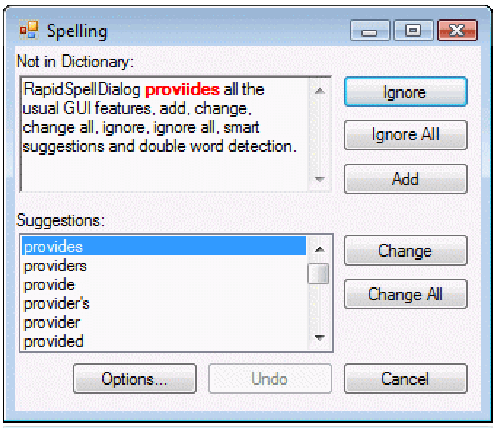
# DESCRIPTION OF THE APP/AI/ACS CASES

## CASE 4 : WINDOWS FORMS / WPF APP WITH WEB API INTEGRATION



RapidSpellDialog proviides all the usual GUI features, add, change, change all, ignore, ignore all, smart suggestions and double word detection.

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You develop a **C# Desktop GUI application** using WPF or the slightly older but more documented and simpler Windows Forms.

You choose the theme yourself, but several technical requirements have to be met:

- SQLite is used
- Inheritance is used
- Data is written via an ORM
- The app is in a GitHub Actions CI/CD pipeline where you can download it as an artifact .exe-file (+ any .dll-files)

So, look for an interesting subject / game idea / ... and build an application around it. Creative and technical additions you make should be mentioned and highlighted as well, as this will result in a higher score. The following tutorial gives a good introduction to WPF & SQLite: https://www.youtube.com/watch?v=X2AksMwYyss

## CASE 5 : DEVELOPING A WEBSCRAPER USING C#-BASED SELENIUM BROWSER AUTOMATION

**Selenium** is the most popular **web browser automation** project. It is supported by many programming languages, including C#, and emulates user interaction with a browser. This allows one to automate many user tests, but there are many other possibilities.

One of those things is **web scraping**. It's up to you to get to know **Selenium** and in this role build it into **a Console-based web scraping tool**. A useful tutorial: https://www.lambdatest.com/blog/scraping-dynamic-web-pages/

The intention is to have at least 3 scraping options:

- Scraping the basic data (link, title of the video, uploader and number of views) of the 5 most recently uploaded Youtube videos based on a search term that the user of the scraping tool can enter.
- Scraping the data on the jobsite https://www.ictjob.be/. Hereby the user of the scraping tool must be able to enter a search term, after which the data is retrieved of the 5 most recently uploaded jobs that have been entered under that search term: Title, company, location, keywords and link to the details page.
- 1 self-selected site & data, but always based on a term entered by the user of the scraping tool.

Furthermore, the following must be taken into account:

- The data is written via to a .CSV file
- The data is written to a .json-file

Creative and technical additions you make are also mentioned and highlighted, as this results in a higher score.

## CASE 6 : ASP.NET WEB APP WITH CONTENTFUL HEADLESS CMS

Wordpress and Drupal have been popular CMS systems for quite a long time. Recently they are joined by the upcoming trend of headless CMS like Contentful. Working with these feels more modern thanks to the API-based workflow, together with the increased support for development in different languages and a clean seperation between content and presentation.

Get to know Contentul by creating an ASP.NET web application that:

- Uses Contentful and the .NET SDK to deliver content
- Uses ASP.NET to present the content to users
- Has a Dockerfile with which the application is placed in a Docker container
- Has a GitHub Actions workflow which builds the application and creates the Docker container. This container is then placed on your Docker Hub.

You choose the theme yourself. In any case, use both text and image content in your application. Creative and technical additions you make should be mentioned and highlighted as well since this will earn you a more score. The following tutorial gives a good basic intro: https://www.youtube.com/watch?v=9EX0uB9dcbM