# Investigating criterial features of learner English and AI-driven automatic language level assessment - UI DEMO

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# Outline

UI Demo
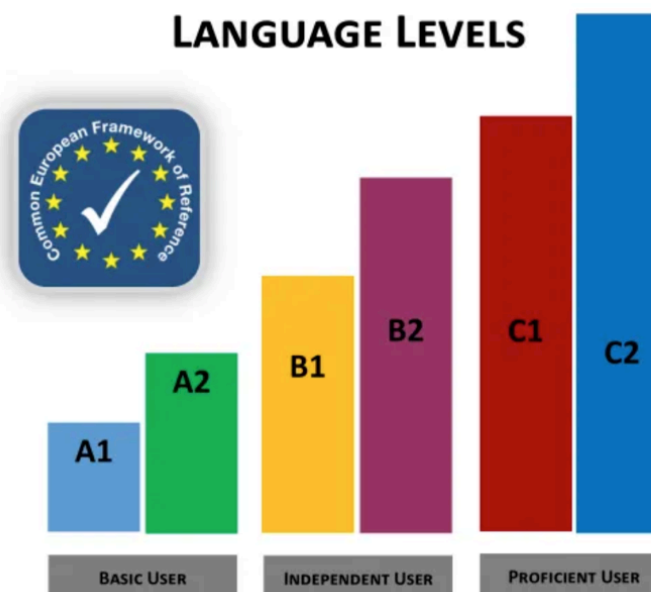System's pipeline
Architecture
URL

# Investigating criterial features of learner English and AI-driven automatic language level assessment - Demo

## WRITE YOUR ESSAY HERE

Write something here...

Evaluate current essay

## GUIDE CEFR LEVELS



LANGUAGE LEVELS

Common European Framework of Reference

A1   A2   B1   B2   C1   C2

BASIC USER   INDEPENDENT USER   PROFICIENT USER

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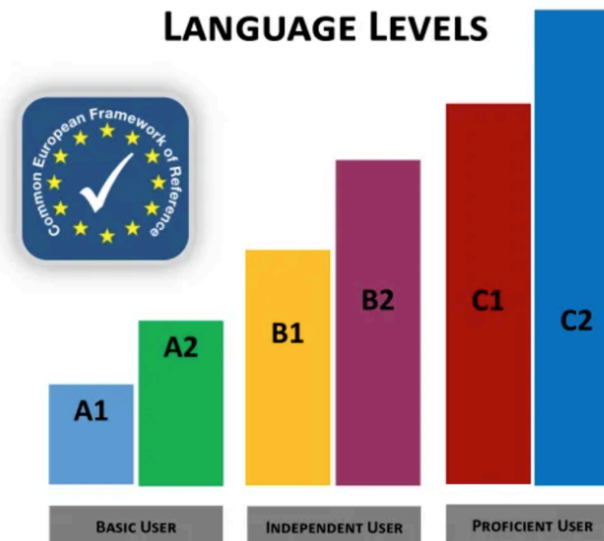
## WRITE YOUR ESSAY HERE

With the development of new technologies such as smartphones, new questions are being caused about how to evaluate students. Indeed, using cellphones to cheat is common in highschools.
The first question we have to ask ourselves is wether we should authorize students to access their phone or not.
Arguments against are well-know: generation of students graduated without it. Plus, it might not help them in the end because they will not be properly trained for memorize information.
But we also have to consider arguments in favor of it, in order to do what is best for our students. First, they will be working with these technologies is their professional lives, and we should be preparing them for that, by teaching them a proper use of smartphones and computers. We can also add that memorizing <del>inf</del> a lot of informations is not as important as it once was: knowledge is now accessible <del>and</del> on phones and we should train our students to ask themselves the good questions and to analyze properly their sources.
With all these informations, our comitee will be <del>a</del> able to take a decision on the use of smartphones during exams.
We also have to think of ways to deal with thes new kind of fraud. If we were to maintain the kan&lt;?&gt; on smartphones during exams, how should we enforce that policy? With an integrity pledge or new technologies?
If we allow thejar use, to what extent? How do we avoid having students communicating and writing the same essay?

Evaluate current essay

## PLEASE, WAIT

Please wait, processing your text. It usually takes around 3 minutes.

## GUIDE CEFR LEVELS

# Investigating criterial features of learner English and AI-driven automatic language level assessment - Demo

## WRITE YOUR ESSAY HERE

It lead to new trouble in university : fraud. In this report we will see why cheat is frequently used and what has been proposed in order to fix it.
According to Dennis Carter in 2012, 35% of students use their phone to cheat. The reason of this high rate of cheat is constant sharing between classmates during classes. There habits to share information are used while assessments and/or before. In the first video, we saw that statistic of a midterm exams <del>wh</del> with cheat is way different from a normal situation and it led students to retake it because it wasn't acceptable. Which also is a loss of time and money.
Cheating is much easier now because our tools are are fast and if you know how to use them. It's highly effective and accurate. <abbr title="""Monsieur""">M.</abbr> Carter said that with them, you no longer have to memorize notions be they're already in Internet. So we must find ways to make assessment that reveal the level of skills of students in modern society.
Several ways has been tried  a proposed la that purpose. First of all, an australian educator <del>'s</del> allow web accessible smartphone during exam to kest the students ability to gather information with all the tools they want. Other educators and teachers might think the idea is good because they'd make their test harder and everybody might be <del>é</del> equal with internet
Other schools and students try different issues. Some students created an Academic integrity pledge to fight against cheat in their university. With sanctions if you doesn't respect the honor code that students signed.
Finally they also propose to sensiltve  students to plagiarism, writing and citation skills to induce them at doing their own work.
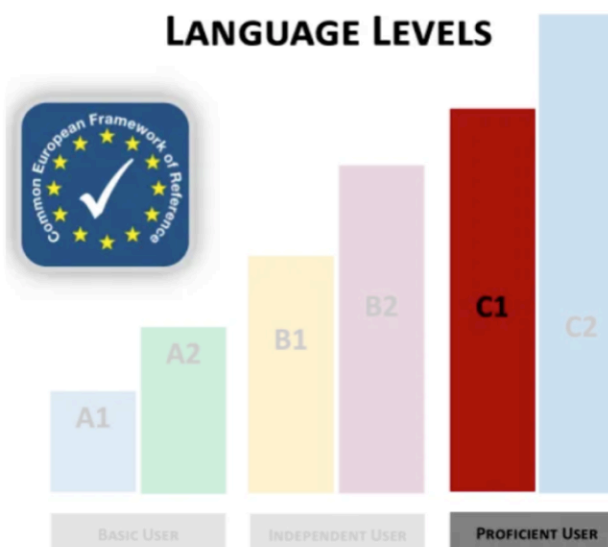
Evaluate current essay

## PREDICTION OF TEXT LEVEL

**48.57% level C1**
31.94% level B2

## GUIDE CEFR LEVELS

### LANGUAGE LEVELS

Common European Framework of Reference

A1    A2    B1    B2    **C1**    C2

BASIC USER    INDEPENDENT USER    PROFICIENT USER

# System's pipeline

The written text/essay
in English

The most likely class of the
text's English level

| Text input | Feature extraction | ML prediction model | Prediction output |

A vector of numbers
representing the text
characteristics
(size 768)

Machine Learning
algorithm to predict
English level

# Architecture

# Tools
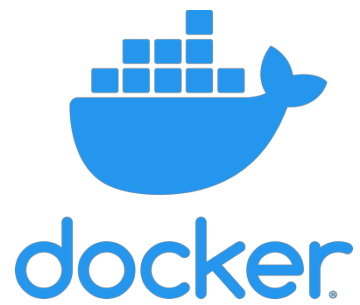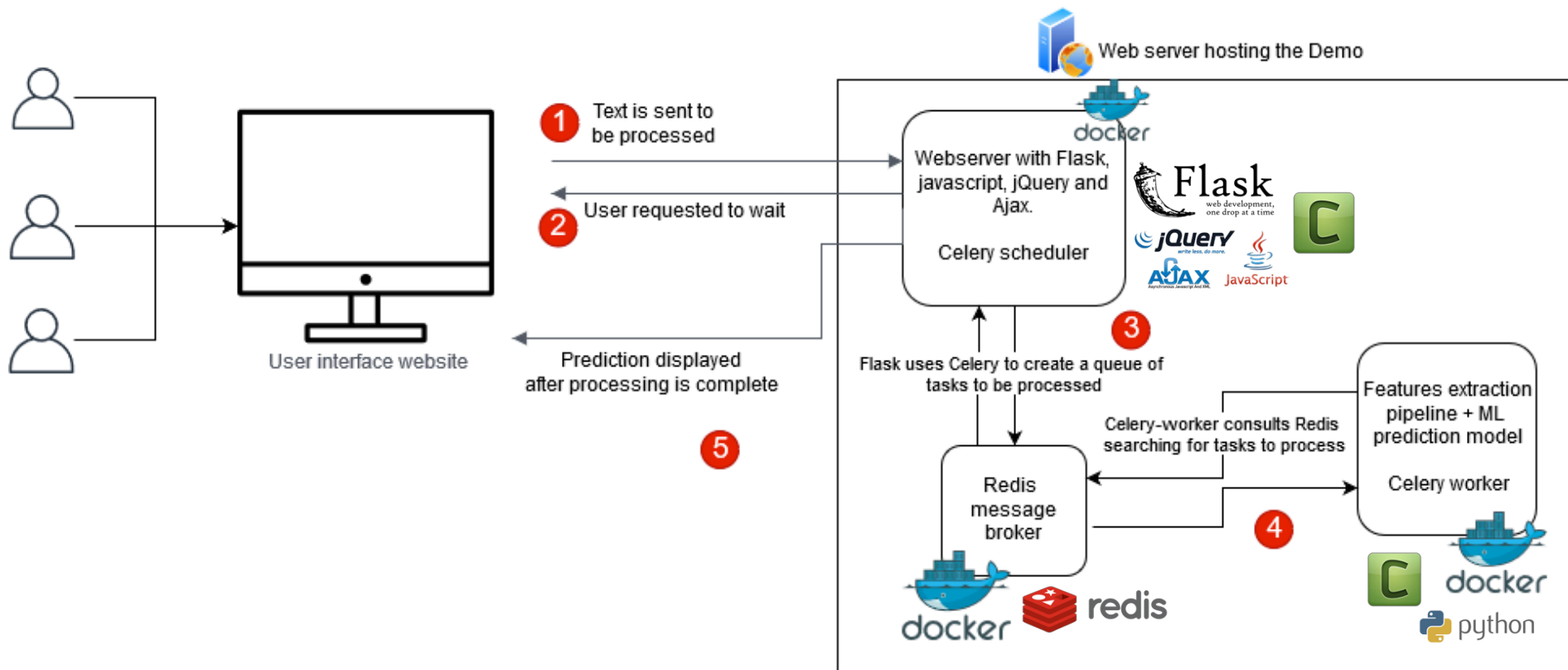
Web server hosting the Demo

**1** Text is sent to be processed

Webserver with Flask, javascript, jQuery and Ajax.

Celery scheduler

**2** User requested to wait

User interface website

Prediction displayed after processing is complete

**5**

**3**

Flask uses Celery to create a queue of tasks to be processed

Celery-worker consults Redis searching for tasks to process

Features extraction pipeline + ML prediction model

Celery worker

Redis message broker

**4**

# URL:
# http://
# ulysses.datascienceinstitut
# e.ie:8080

# Thank you. Questions?

1. Go to http://ulysses.datascienceinstitute.ie:8080

2. Write your text

3. Have some coffee while waiting for your answer

4. See your English level prediction

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