



Error Detection and Correction Tool for Arabic Poetry using Deep Learning



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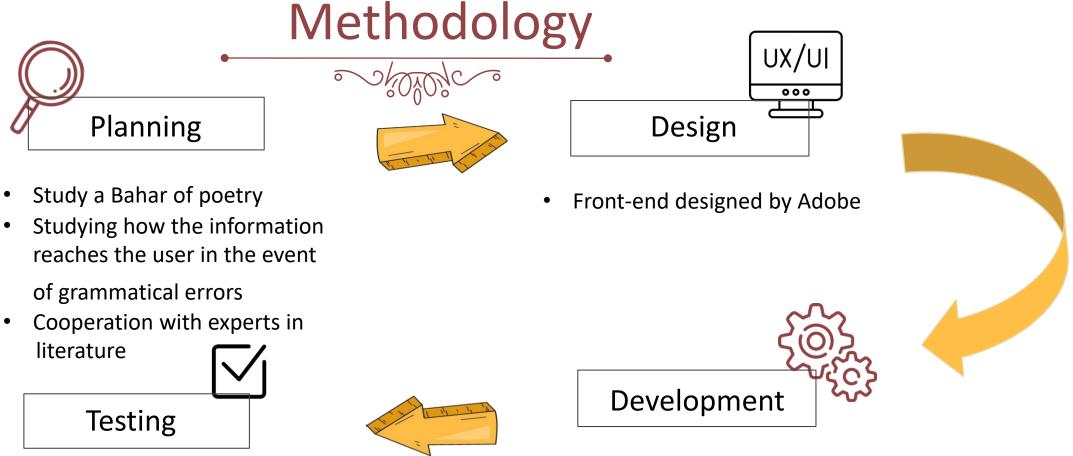
Introduction

Classical Arabic poems are written as a set of verses, There is no limit on the number of verses in a poem, Each verse is divided into two halves called hemistiches which also are equivalent in length.

Classical Arabic poems follow a very strict but simple rhyme model. In this model, the last letter of each verse in a given poem must be the same. If the last letter in the verse is a vowel, then the second last letter of each verse must be the same as

Aim Objectives

- Correcting and assisting the individual and writer who loves poetry and writing poetry smoothly.
 - Helping poetry lovers and writers write poetry without mistakes.
 - Raising awareness in poetic culture.
 - Explain the meaning of the word in the poetic verse.
 - The Poet's can contact directly with user.



- The training of the model was tested on poetic examples
- Front -end is programmed by react
- Back-end is programmed by flask
- artificial intelligence is programmed by jupyter

Process system

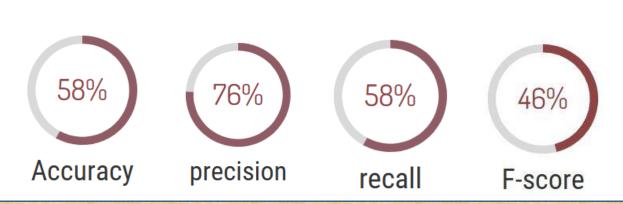


Poetic verses are collected for the type of bahar that we programmed is Al-Hazaj bahar, as well as examples of poetic verses for other types of the remaining bahar in the Excel program.

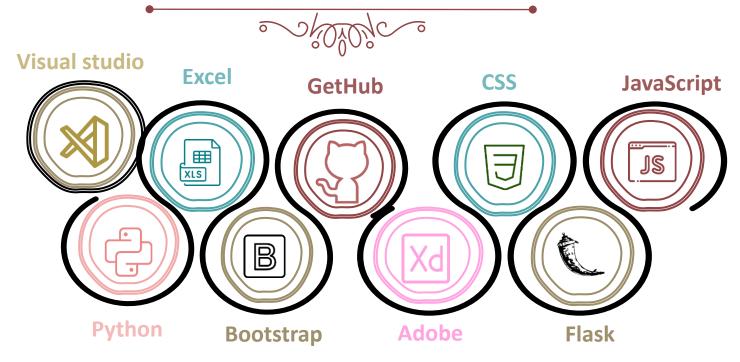
Labels	Data
hazaj	فرُمْ تَحْصِيلَهَا فَهُماً #علَى أَهلِ الدِّرايات
Not hazaj	والمُدُّ يَكفيكَ وَلَكِنَّ في # طَبعِكَ أَن يُدَّخَرَ الكُر

The model was trained on 340 examples of poetic verses that were rated by hazaj and not hazaj, Performance metrics in machine learning classification models are tested to evaluate how well machine learning classification models perform in a given context

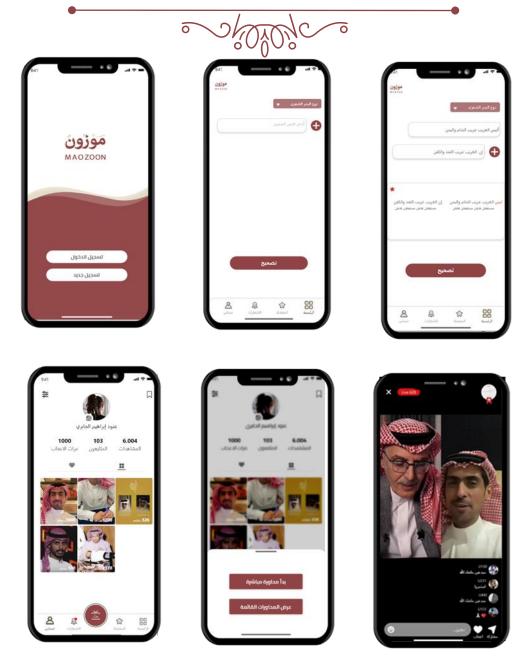
- -The model precision score measures the proportion of positively predicted labels that are actually correct.
- -Model recall score represents the model's ability to correctly predict the positives out of actual positives.
- -Model accuracy is defined as the ratio of true positives and true negatives to all positive and negative observations.
 - -Model F1 score represents the model score as a function of precision and recall score.



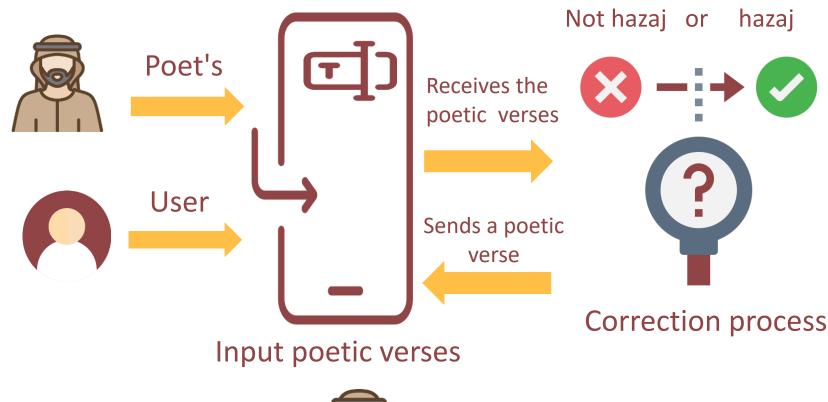
Programming Tools

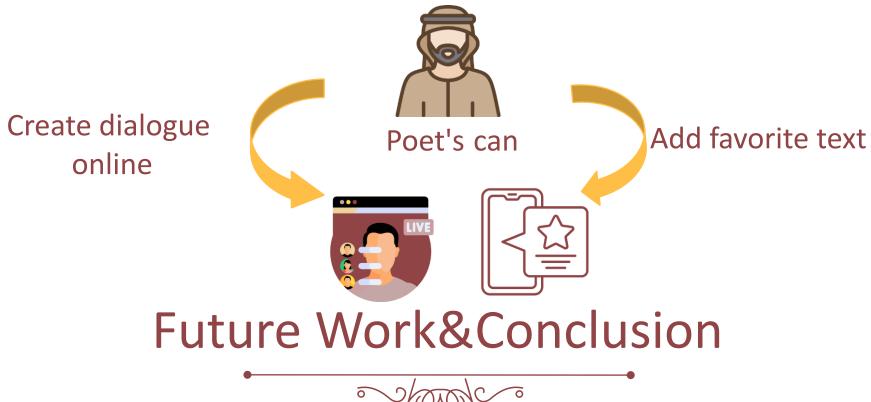


Application Interface



How the application works





When you read a piece of literature, you are reading a life experience through the eyes of another person, good writing makes you think outside your own mind, teaches you things you didn't know existed, and well-written works of literature give you the opportunity to feel the emotions of the characters.

in the future of our application is Learn the synonyms of the words and their meaning and Show and Learn grammatical errors with correction





