FIT316x – Software Project
Semester 2 2023

A tool for streamlining of information/document processing

Project Motivation

Processing of documents is a common task being undertaken for many purposes. In its most generic form, this involves the following activities being performed by one or more individuals.

1. Examining of documents/information submitted for processing
2. Assessing the information or document contents against a set of criteria
3. Formulating an appropriate response to the received information or document content

Some common specific examples of the above are:

1. Assessing job applications against selection criteria
2. Responding to a submission (for example to a Gov agency) and assessing its content against a set of rules or regulations, and formulating a response
3. Marking of students' assignment submissions
4. Viewing of medical examination results, assessing against symptoms and standard medical procedures and formulating a medical response or treatment plan.
5. Viewing an incident or system or equipment malfunction report, assessing against standard response procedure and formulating a response plan
6. Watching a video or movie and rating it against a set of rating criteria

In the example cases above the material being examined can be in different formats: text, graphic, audio or video.

Typically the examined material and the assessment criteria will be available either in electronic or hard copy format (eg a hard copy of a letter or a form or some other document). These will however be separate documents which would be handled manually either in hard-copy format or electronic format. This can be a laborious, inefficient process which can slow down the formulation of the appropriate response action, and can be error prone

The proposed project

There is an opportunity here to develop a software tool to facilitate the above process. Ideally the developed tool will be general enough to allow any of the above example situation to be handled. For example the same tool should be easily configured to managed marking of assignments or processing of job application, or anything else which fits the pattern above (Examination, Assessment against criteria and formulation of response)

The following is a set of functionalities that the tool would provide. These are subject to modifications:

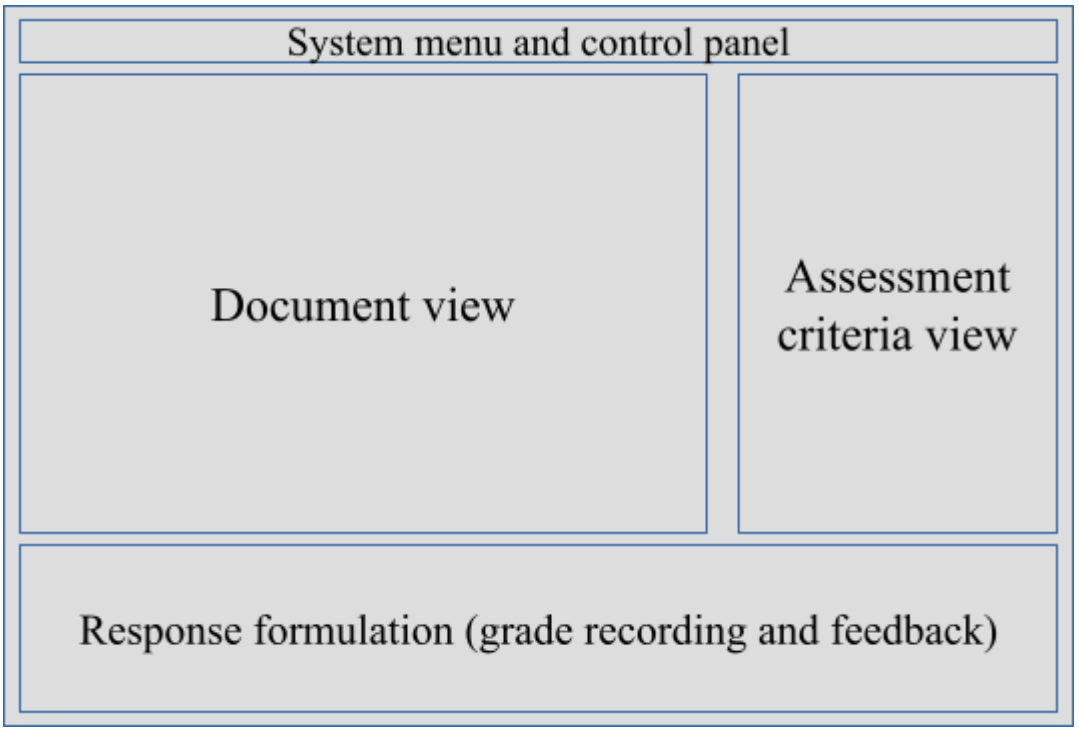
1. Viewing of the material available format (you may assume the material has been digitised)
2. Simultaneous viewing of the assessment criteria
3. A method to provide a response appropriate for the situation being handled.

For example for marking of student assignment, the following can be envisaged:

A 3 (resizabe) pane computer interface:

a. Displaying the submitted assignment
b. Viewing the marking rubric or marking guidelines
c. A form for recording student marks and a text box for providing feedback on the submission

Additionally the mark recording pane may also provide functionalities to calculate the final grade.



Key considerations for developer team are:

Accountability: ie all processing activities can be logged and traced
Extreme useability: requires a bare minimum of navigation and manipulation action, ie: mimimum number of mouse clicks
Storage of all necessary documents in a database.

Other desirable functionalities and / or system attributes will be proposed by the developer team

Technical considerations:

The tool may be a web based tool or a standalone tool.

If a web based tool, it would preferably have a Python back end and provide a typical browser based (html/css and javascript) front end. Any data will be stored in a database such as Postgresql or Mysql. A nodeJS application may also be considered as an alternative.

Key user acceptance (performance) criteria

1. On first accessing the system, the user can start processing a document in 30 secs or less
2. The user can transition from one assessment to another in 10 secs or less
3. Navigating through the system should take an absolutely minimum of mouse or keyboard clicks
4. The user at all stages should only be presented with the information they need to proceed with the activity they are undertaking. (if they want to see more then they will be provided with options to see more)
5. There will be a separate system administration and configuration interface.

Detail design considerations will be discussed with the project supervising Tutor.

Students will be required to do their own research to investigate similar systems, or systems which fromwhich ideas can be borrowed from.

Usability (ease of use) of the final product is a primary consideration in this project