

Assumptions and Prerequisites:

- Firstly, we need to ask OLE Team that which phrases they want us to provide in another language (for beginner say Arabic).
- It is assumed that for those phrases, they will provide us their corresponding matches (value in Arabic against any phrase in English)in Arabic.
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- Note that Language will also be detected based upon some attribute in the database.
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- It is suggested from NBS-Team that we will be approaching this **MUI task (Issue#47)** as per page at a time, in a sequential manner.

Work-Flow:

After this, we will follow this iterative process on each page

- Create a Map(to store tokens as ID's and their corresponding value) according to each language, based upon charset UTF-8 (to support almost all languages). It will be decided later that whether for each page we are having a single map or single map with all phrases for one language. The later is preferred till now. (Tentative Estimates= 3h)
- For one particular page, we should be able to construct a map with the data provided. (Tentative Estimates= 2h)
- In case the source of text being generated on page is from html then Tokenize the whole HTML of the page, so as to remove the static phrases, used wherever. (Tentative Estimates= 8h)
- But when the text is being generated on elements generated from server side, then will have trace their beginnings and then make them exhibit the required output on page. (Tentative Estimates= 8h)
- Then for each phrase, we are going to fetch its appropriate corresponding value in Arabic from the map and place it their. (Tentative Estimates= 3h)

This whole procedure is going to be repeated for each page (Step 2-5 are going to be repeated for each phrase on one page).

Challenges:

Following are the challenges that are very obvious to be found in our case.

- Whenever there is any new word provided in the application, then we need to make our map consistent with the current state.
- There are languages that are read from Right to left(like Arabic) and other from left to right(like English), so we have to work on the formatting of page.
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- Some words when found in French are prolonged in length whereas some words when found in other languages are shortened. So, we have to cater this challenge in adjusting our UI elements effectively on page, regardless of language. Similarly for font-sizes as well.
- To have a context-aware MUI, we need to keep our phrases simpler and should be provided with their APPROPRIATE matches in the next language.
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- Work on numbers and date formats for a particular culture.

*Please find the attached POC of the initial effort made on Creating a Multilingual Interface.

These tentative estimates are made after discussion with Gibran Akram and It will take time around 3-4 days as our initial analysis for first page. However it may change based on some unforeseen issues that we face during development on this.