DB final project

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System description

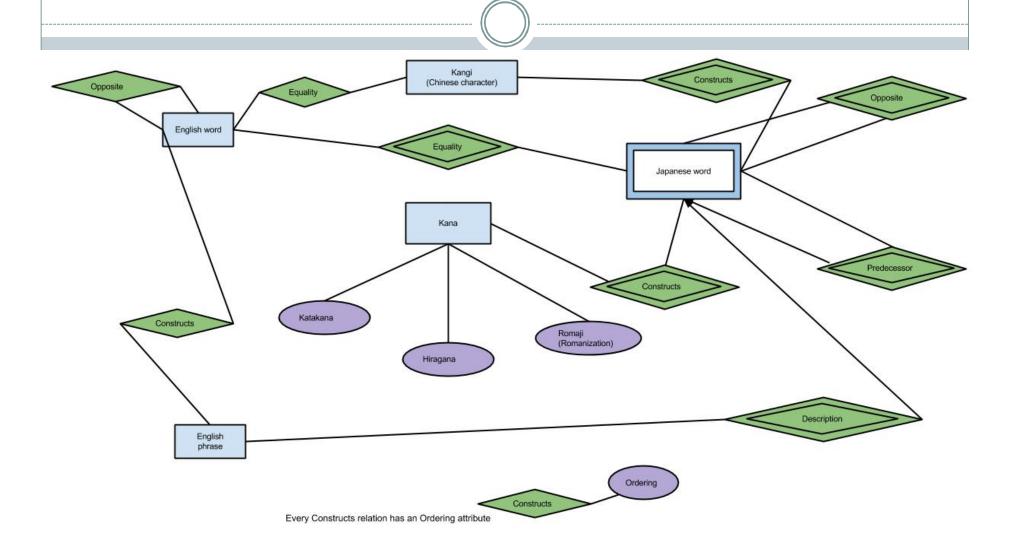
• A system would allow users to translate Japanese to English and the other way around.

Use case description

- Translate any Japanese word (in forms of hiragana, katakana, romaji, or kanji) to english
- Translate English word/compound to Japanese word (in forms mentioned above)

Output: Sequence of Japanese words that are Use linked to English word or phrase; if not available, sequence of Japanese words linked to parts of English phrase, in order Input: English word or phrase Output: Sequence of English words that are linked to Japanese word or phrase; if not available, sequence of English words linked to parts of Japanese phrase, in order Input: Kana mode (Katakana, Hiragana, Romaji) Japanese word or Output: phrase, in Kana English description, if available Output: Relevant Kangi characters, in order of Kana English definitions of Kangi characters

Japanese-English ER diagram



Relations

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englishWord(ew_id, ew_word)
englishWordOpposite(ewo_englishWordID, ewo_oppositeID)
englishPhraseIndex(epi_ID)
englishPhrase(ep_ID , ep_englishwordID, ep_order)
japaneseWord(jw WordID)
japaneseWordPredecessor(jwp japaneseWordID, jpp predecessorID)
japaneseWordOpposite(jwo_japaneseWordID, jpo_oppositeID)
japaneseWordDescription(jwd_japaneseWordID, jwd_englishPhraseID)
japaneseEnglishWordLink( jewl_linkID , jewl_japaneseWordID, jewl_englishWordID, jewl_japaneseWordOrder, jewl_englishWordOrder)
japaneseEnglishWordLinkIndex (jewli_linkID)
japaneseWordKanaLink(jwkn_japaneseWordID, jwkn_kanaID, jwkn_order)
japaneseWordKangi(jwki japaneseWordID, jwki kangiID, jwki order)
kanaSystem(kns_ID, kns_hiragana, kns_waseiEigo_id, kns_katakana,
  kns romaji)
kanjiSystem(ks kanjiID, ks char,)
japaneseWordKanjiLink(jwki japaneseWordID, jwki kanjiID, jwki order
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SELECT kns hiragana, kns katakana, kns romaji FROM kanaSystem INNER JOIN japaneseWordKanaLink INNER JOIN japaneseEnglishWordLinkON kanaSystem.kns_kanaID = japaneseWordKanaLink.jwkn kanaIDAND japaneseWordKanaLink.jwkn_japaneseWordID = japaneseEnglishWordLink.jewl_japaneseWordID WHERE japaneseEnglishWordLink.jewl_englishWordID = (select ew_wordID from englishWord where ew word = 'tall') ORDER BY japaneseWordKanaLink.jwkn_kanaOrder;

Implementation details

- Data were manually inputted
- GUI written in Scala

Setup

