

# DB final project



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# System description



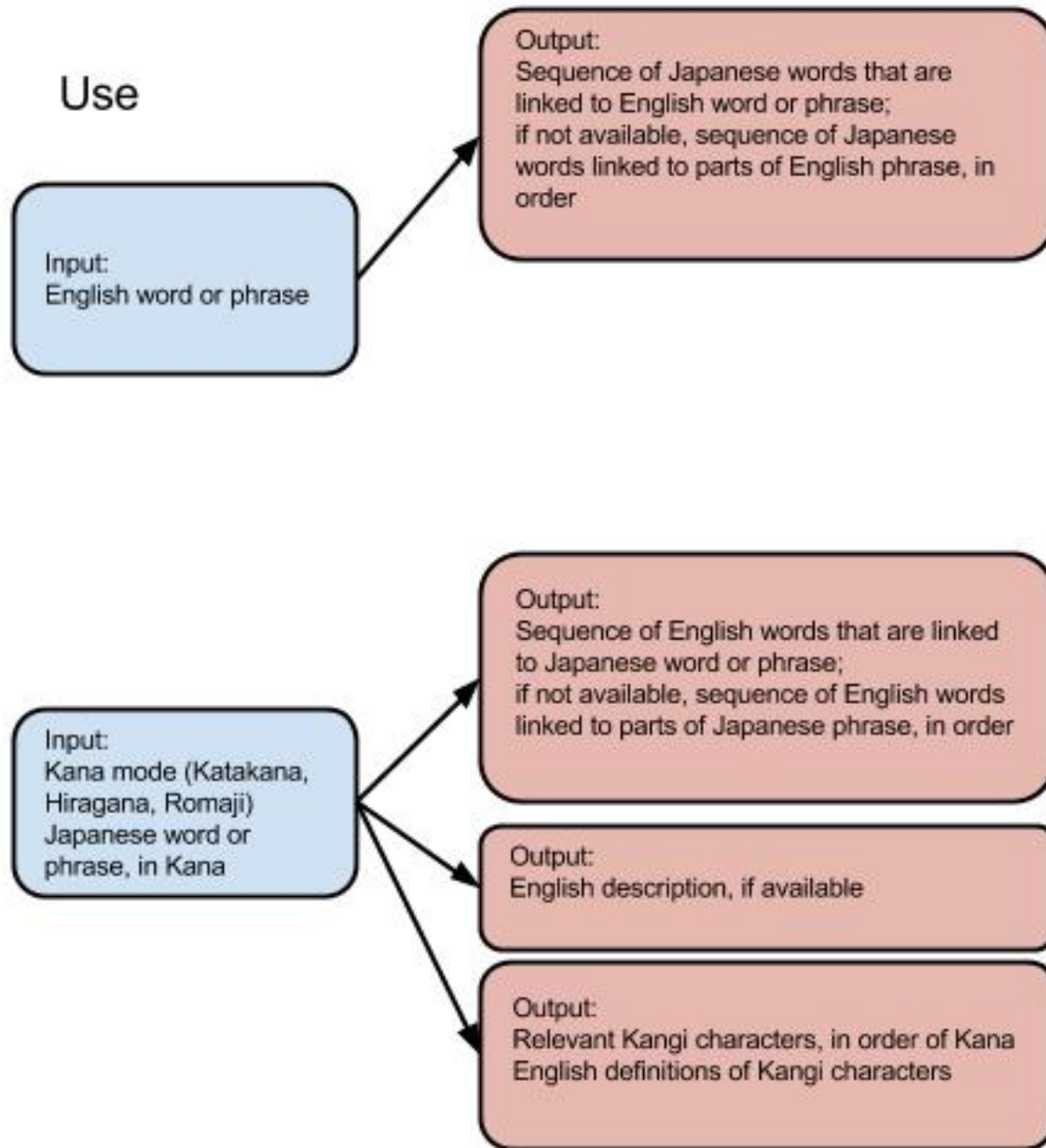
- A system would allow users to translate Japanese to English and the other way around.

# Use case description

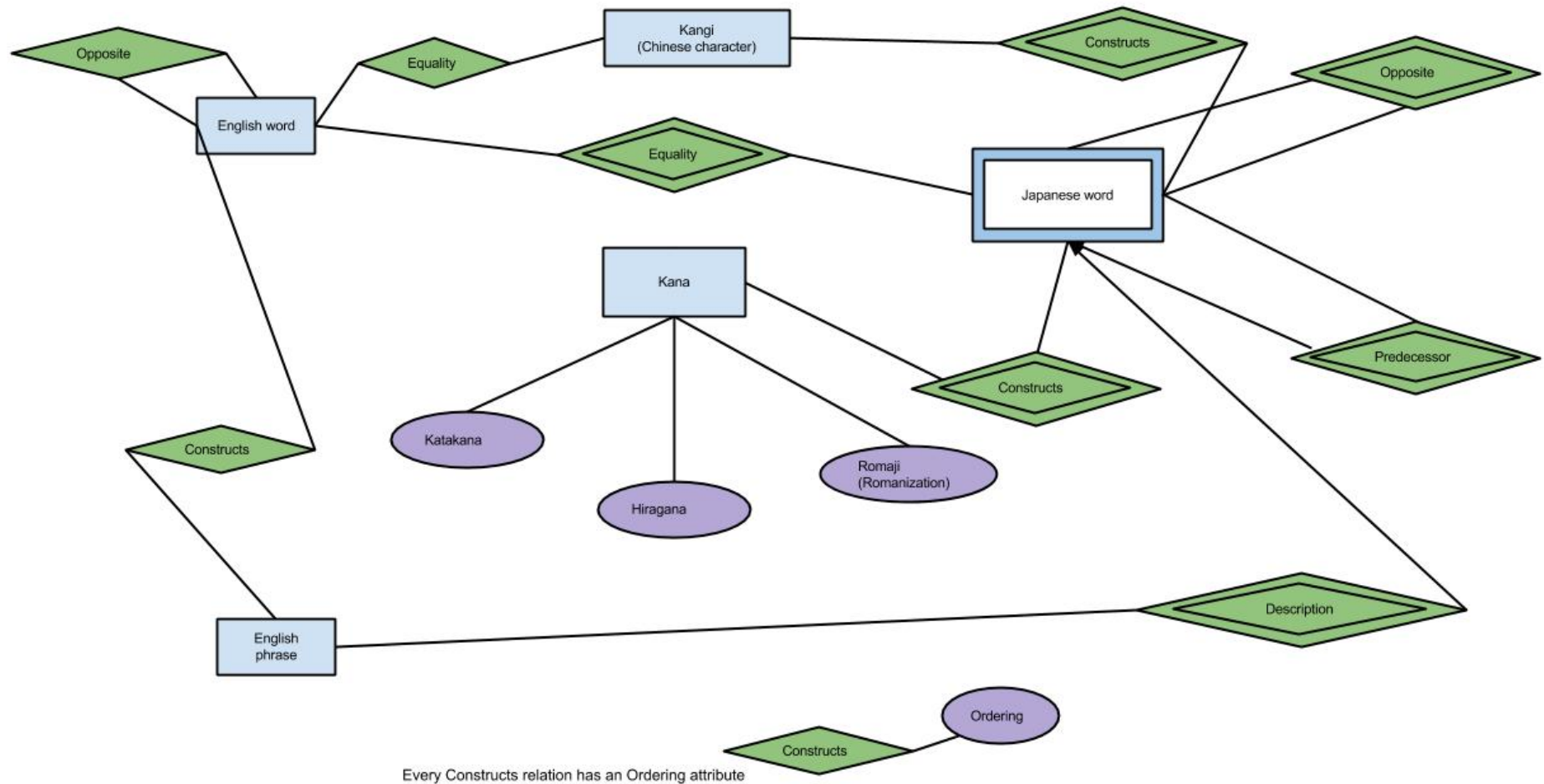


- Translate any Japanese word (in forms of hiragana, katakana, romaji, or kanji) to english
- Translate English word/compound to Japanese word (in forms mentioned above)

## Use



# Japanese-English ER diagram



# Relations



**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)



```
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

