IBM Services' request -response values

Using Natural Language Understanding service of IBM Watson, we get following features:

1. Entities
2. Keywords
3. Relations (between Entities)
4. Emotion
    a. Anger
    b. Joy
    c. Sadness
    d. Fear
    e. Disgust
5. Sentiment:
    a. Positive
    b. Negative
    c. Neutral
6. Semantic Roles
    a. Subject
    b. Action
    c. Object
7. Metadata
    a. Details on author
    b. Source etc.
8. Concepts
    a. Concept (what's the topic of the article)
    b. Relevance
    c. Resource

- Both at document level and target level (specific keywords/product names)
- **Language support:**
    - Accepts below languages with selected features (details of which can be found by clicking on the links below) English and French supports all features

1. Arabic
2. Chinese (Simplified)
3. Dutch
4. English
5. French
6. German
7. Italian
8. Japanese
9. Korean
10. Portuguese
11. Russian
12. Spanish
13. Swedish

- To override automatic language detection in /analyze requests, specify a language code in the language attribute of the parameters JSON object.

Using Tone Analyzer service of IBM Watson, we get:

Tone analysis can be done in two levels and in two ways at:

- Analysis on:
  1. Document level
  2. Sentence level
- Analysis of:
  1. General tone
  2. customer engagement tone

1. Analyzing general tone:

Response Tones:

- Emotional tone
  - Anger
  - Fear
  - Joy
  - Sadness
- Language tone
  - Analytical
  - Confident
  - Tentative
- Social tone
  - openness_big5,
  - conscientiousness_big5,
  - extraversion_big5,
  - agreeableness_big5, and
  - emotional_range_big5
- Limitation:
  You can submit no more than 128 KB of total input content and no more than 1000 individual sentences in JSON, plain text, or HTML format. The service analyzes the first 1000 sentences for document-level analysis and only the first 100 sentences for sentence-level analysis.

2. Analyzing customer engagement tone:

- (Used for chat platform)
- Utterance analysis
- **Response Tone** values:
  - sad
  - frustrated
  - satisfied
  - excited
  - polite
  - impolite
  - sympathetic

- **Below is an example response**
  - Utterance text: "Hello, I'm having a problem with your product.",
  - score: 0.718352, tone name: "Polite"
  - Utterance text: "OK, let me know what's going on, please"
  - Utterance text: "Well, nothing is working ☹
  - "score": 0.997149, tone name: "sad
- Utterance text: "Sorry to hear that.",
- "score": 0.689109 tone name: "Polite", "score": 0.663203, tone name: "Sympathetic"
- Limitations:
  - If you submit more than 50 utterances, the service returns a warning for the overall content and analyzes only the first 50 utterances. If you submit a single utterance that contains more than 500 characters, the service returns an error for that utterance and does not analyze the utterance. The request fails if all utterances have more than 500 characters.

- **Language Support:**

  - Response available in:
    - Arabic
    - German
    - English
    - Spanish
    - French
    - Italian
    - Japanese
    - Korean
    - Portuguese (Brazil)
    - Chinese (PRC)
    - Chinese (Taiwan)

  - Request In:
    - English
    - French

- References:
  - https://www.ibm.com/watson/developercloud/tone-analyzer/api/v3/curl.html?curl#introduction
  - https://console.bluemix.net/docs/services/natural-language-understanding/language-support.html#italian
  - https://console.bluemix.net/docs/services/natural-language-understanding/getting-started.html#getting-started-tutorial