# Stories and Risks

* **Phonology Generator**
  + [POC.1] S, Display IPA consonants in a full consonant table
    - Unknown difficulty in displaying IPA characters
  + [POC.2] S, Display IPA vowels in a full vowel table
    - Unknown difficulty in displaying IPA characters
  + [POC.3] M, Click on a vowel or consonant to play its audio
    - Reliance on two third-party libraries, one to convert IPA into a format readable by the TTS library as well as the actual TTS library
  + [POC] M, Generate logical sets of consonants and vowels
* **Word Rules**
  + [POC.4] S, Map common sounds to spelling
  + [POC.5] S, Sound to spelling map display
  + [POC.6] M, Add, remove, and edit sound to spelling map in display
  + [1.1] S, Generate stress
  + [1.2] M, Display for editing stress
  + [1.3] L, Generate phonotactics
    - Requires more research into possibilities
  + [1.4] M, Display for editing phonotactics
* **Grammar**
  + [3.1] M, Generate noun cases
  + [3.2] M, Editable display of noun cases
  + [3.3] S, Generate articles
  + [3.4] M, Editable display of articles
  + [4.1] S, Generate basic word order
  + [4.2] M, Editable display of word order
  + [4.3] S, Generate pronouns
  + [4.4] M, Editable display of pronouns
  + [5.1] M, Generate verb tenses, modalities, and mode
    - Requires more research into possibilities
  + [5.2] M, Display for editing verb tenses, modalities, and mode
  + [5.3] M, Generate derivational morphology
    - Requires more research into possibilities
  + [5.4] M, Display for editing derivational morphology
* **Content Generation**
  + [6.1] L, Generate and display vocab words
  + [6.2] XL, Generate and display sample sentences
    - Requires extensive research and may not be a realistic goal
* **Account System**
  + [2.1] M, Register an account
    - Not sure if I’m using Firebase or Passport.js for account system
  + [2.3] S, Logout of account
  + [2.2] S, Login to account
  + [2.4] M, Save languages to account
    - Not sure if I’m using Firebase or a custom database solution
  + [2.5] M, Load saved language

# Dependencies

-> means depends on

Grammar -> Word Rules

Word Rules -> Phonology

Content (word generation) -> Word Rules

Content (sentence generation) -> Grammar

The account system is independent

# Proof of Concept

* Display IPA consonants in a full consonant table
* Display IPA vowels in a full vowel table
* Click on a vowel or consonant to play its audio
* Generate logical sets of consonants and vowels
* Map common sounds -> spelling
* Sound -> spelling map display
* Add, remove, and edit sound -> spelling map in display