Cats & Kittens



Course project by Sigrid Jonsson LT2216 S21 Dialogue Systems

Mastermind Variation



- Mastermind
 - Two player code-cracking game
- Cats & Kittens
 - Four digits, 0-9
 - Hints:
 - Cat: digit in correct place of code
 - Kitten: digit in code but not in correct place

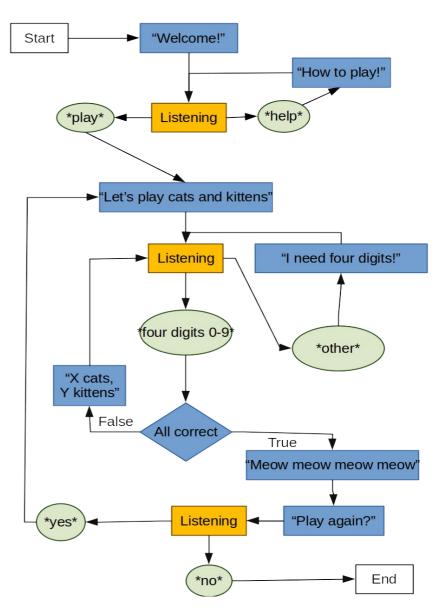


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Technicalities



- React & Xstate
 - Base of the game
- Rasa
 - Heroku server
 - More natural conversation



Challenges



- Voice recognition
 - Number interpretation
- Program flow
 - A ton of states
 - Re-prompts and history state is tricky

2 Speaking
Ready to receive speech input.
<< ASR: 8th 295
Recognition stopped.
2 Speaking
Ready to receive speech input.
<< ASR: <u>3:15</u>
Recognition stopped.
2 Speaking
Ready to receive speech input.
<< ASR: 1235
Recognition stopped.
2 Speaking
Ready to receive speech input.
<< ASR: <u>1 to 15</u>
Recognition stopped.
2 Speaking
Ready to receive speech input.
<< ASR: 3257
Recognition stopped.

Relation to Course Contents



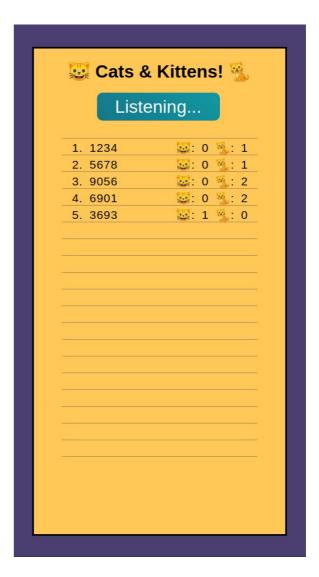
- State machines
 - Xstate
- Rasa intents
- Wished to use:
 - SSML
 - SRGS

```
version: "2.0"
     - intent: play game
       examples: |
         - play
         - let's play
         - I want to play
         - I wanna play
         - start the game
         - let's game
         - start play
     - intent: quit
       examples: |
         - shut down
         - shutdown
         - exit game
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         - shut down program
     - intent: how to play
       examples: |
         - how
         - how to play
         - how do you play
         - what are the rules
         - can you tell me the rules
         - explain the rules
```

Future Work



- More features
 - Settings
 - High score list
- Extended voice interaction
 - Repeat history
 - Interactive "how to play"
- Switch roles
 - Player chooses code and give hints



Demo

