# Task-oriented dialog systems

Quiz, 8 questions

1 point

1.
What is considered a part of NLU?

- [x] Intent classifier
- [x] Slot tagger
- [ ] State tracker

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1 point

2.
What metrics do we use for NLU evaluation?

- [ ] Number of turns in the dialog
- [x] Slots F1
- [ ] Task success rate
- [x] Intent accuracy

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1 point

3.
Choose correct statements about NLU.

- [ ] Joint NLU model can't produce predictions faster than two separate models combined (one for intent classification and another for slot tagging)
- [x] Training a joint NLU model helps intent classifier and slot tagger.
- [x] You can use Convolutional Networks for slot tagging.
- [x] You can use 1D convolutions for intent classification.

1 point

4.

Choose correct statements about dialog context.

- [x] We can use memory networks to deal with context.
- [x] We can add a simple feature like "previous utterance intent" as a categorical feature to NLU to start taking into account the context of the dialog.
- [ ] We need dialog context in single-turn dialogs.

1 point

5.

Let me remind you the BIOES lexicon encoding algorithm:

- Let's **match every n-gram** of input text against entries in our lexicon

  Take me to San Francisco

- A match is successful when **the n-gram matches the prefix or postfix** of an entry and is at least half the length of the entry

  *Matches:* "San" → "San Antonio"
  "San" → "San Francisco"
  "San Francisco" → "San Francisco"

- When there are multiple **overlapping matches**:
  - Prefer **exact** matches over partial
  - Prefer **longer** matches over shorter
  - Prefer **earlier** matches in the sentence over later

We will use **BIOES** coding (Begin, Inside, Outside, End, Single)

- B – if token matches the beginning of some entity
- B, I – if two tokens match as prefix
- I, E – if two tokens match as postfix
- S – if matched single token entity
- …

Suppose you have a **lexicon** of 3 places:

- Los Angeles
- San Francisco
- San Francisco Airport

Let's encode the text **"Los Francisco Airport"**.

What encoding will we have?

- B E E
- B I E
- B B E

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1 point

6.

What is considered a part of a dialog state in DSTC 2 challenge?

- The intent of previous utterance
- Goals
- Method
- Requested slots

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1 point

7.

How Frames dataset was collected?

- (●) Human-human dialogs
- ( ) Computer-computer dialogs
- ( ) Human-computer dialogs

1 point

8.

Choose correct statements about dialog policy.

- [ ] We can't learn a dialog manager end-to-end.
- [■] This is a mapping from a dialog state to a system action.
- [■] We need some kind of NLG (at least with hand-crafted rules) to convert a system policy to a human readable utterance.

[ ] I, **Jiadai Zhao**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

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