



Intelligent Conversational Bot

Course Schedule

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Next Week (05/09): TA Discussion

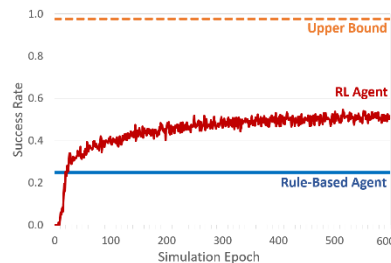
2

- Each team discusses with corresponding TAs
 - ▣ Progress presentation preparation
 - RL-based dialogue policy
 - Speech API
 - Web/App interface
 - Performance evaluation
 - ▣ Plan for system improvement
 - Functionality expansion
 - Multimodality

05/16: Progress Presentation

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- Oral presentation: 5 mins + 2 mins demo
- 5-page slides
 - Supported functionalities & backend DB/tables
 - #tables, #slots, #intents
 - LU model
 - #training utterances, #testing utterances, frame accuracy (%)
 - DST model
 - #tracking accuracy (%)
 - Dialogue policy optimization model
 - Rule-based performance (success rate, avg rewards)
 - RL-based performance (success rate, avg rewards)
 - NLG model
- Demonstrating the system (select one from below; bonus for implementing both)
 - Web interface
 - App



Final Presentation Evaluation

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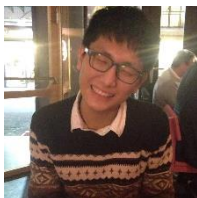
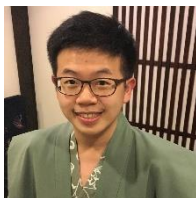
- Task complexity
 - ▣ #tables, #intents, #slots
- Approach
 - ▣ #approaches used, #modalities used
 - ▣ Comparison between methods/modalities
- Performance
 - ▣ Objective evaluation
 - avg rewards with training epochs
 - Success rate with training epochs
 - ▣ Subjective evaluation
 - Naturalness
 - Effectiveness
 - Efficiency
 - Robustness

Project Domains



Teaching Assistants

- 2 TAs are responsible for each domain



- 2 TAs for domain-independent stuff



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T1: MusicBot



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□ Goal: music playing

■ 請幫我播蔡依林的倒帶

■ `play_song(singer="蔡依林", song="倒帶")`

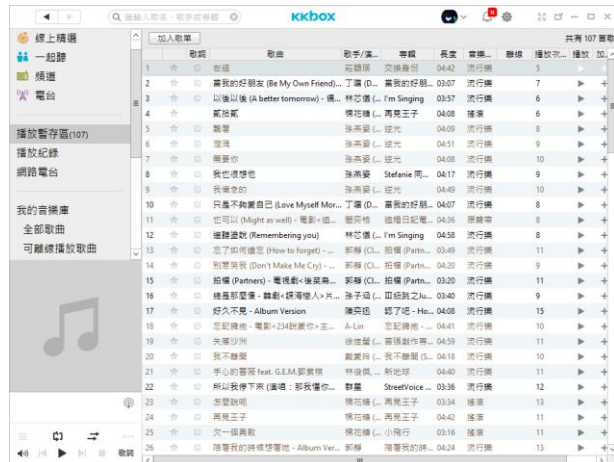
■ 請幫我播倒帶

■ `play_song(song="倒帶")`

■ 我要聽吳克群

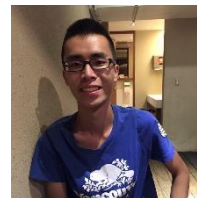
請問你要周杰倫的還是蔡依林的?

請問你要"吳克群"這首歌?
還是吳克群為歌手的歌?





T2: FoodBot



□ Goal: reserve the restaurant

■ 我想訂位古亭的西堤

■ request_revervation(location="古亭", restaurant="西堤")

■ 我想訂陶板屋

請問你要哪個地點的?

■ request_reservation(restaurant="陶板屋")

■ 我要找日式buffet的餐廳

■ find_restaurant(foodtype="日式", restauranttype="buffet")

請問有價位限制嗎?



T3: DSBot



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□ Goal: finding the store for users

▣ 去哪裡買NIKE的球鞋

- `find_location(brand="NIKE", item="球鞋")`

▣ 肉類在哪裡有賣

- `find_location(item_category="肉類")`

▣ 我要買包包

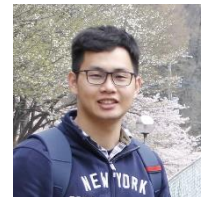
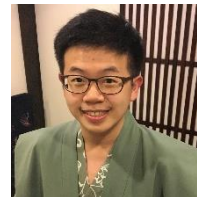
- `find_item(itemcategory="包")`

你問你想要哪個樓層?

請問有品牌偏好嗎?



T4: TVBot



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□ Goal: finding the channel/video for users

▣ 我要看來自星星的你第一集

■ `play_video(drama="來自星星的你", episode="第一集")`

▣ 我要看流星花園

■ `play_video(drama="流星花園")`

▣ 我要找全智賢的劇

■ `Find_video(actress="全智賢")`

請問你要韓劇還是台劇?

請問想找哪個年份的?



T5: TelecomBot



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□ Goal: finding the service

■ 我要查這個月的手機帳單

■ `show_check(period="這個月", device="手機")`

■ 我要申請兩周後的漫遊

■ `Apply_interdataplan(period="兩周後")`

■ 我要辦手機上網

■ `apply_data(device="手機")`

請問你要去哪個國家?

請問需要多少上網流量?





- Goal: finding the suitable division for registration

- request registration(division="骨科", doctor="古醫師")

- 請問你要掛號皮膚科嗎?

- request_registration(symptom="痘痘")

- 請問有流鼻水嗎?

- find division(symptom="頭痛")

- 其他科系
- 臺灣國樂
- 臺灣音樂



T7: FinBot



□ Goal: providing financial service

▣ 哪張信用卡有新貴通會員卡

■ `find_card(ppcard="True")`

▣ Google財報如何

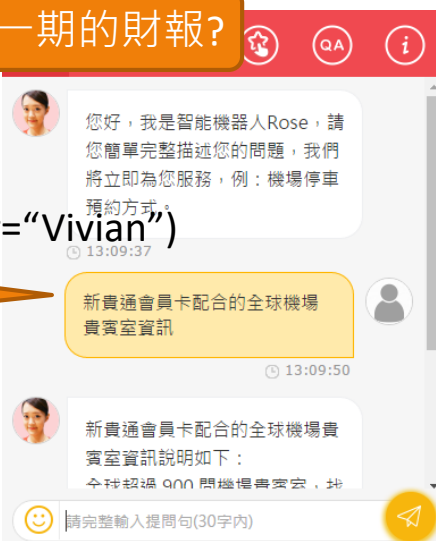
■ `find_finreport(company="Google")`

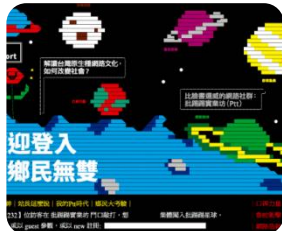
▣ 我想轉500塊給Vivian

■ `request_transfer(amount="500", receiver="Vivian")`

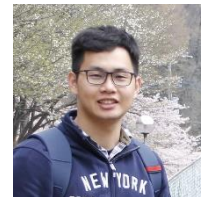
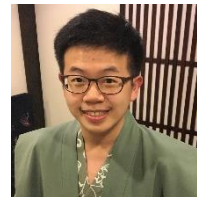
請問你要哪一期的財報?

請問從哪個帳戶轉?





T9: PTTBot



□ Goal: forum finding and functional service

□ 我要推++

■ `push_comment(content="++")`

□ 我要找討論劇的板

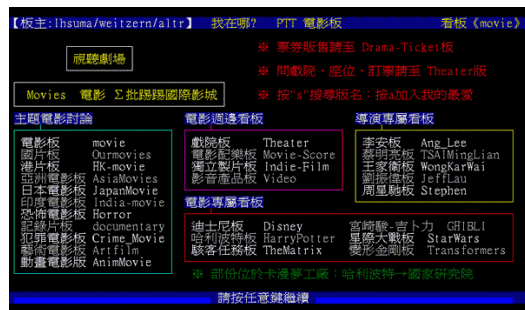
■ `find_forum(topic="劇")`

□ 我要找三個月內討論較多的電影文

■ `show_post(period="三個月內", forum="電影")`

請問你要韓劇日劇還是台劇?

請問你是要推文最多的嗎?





T10: OnlineshopBot



□ Goal: find item pages

■ 我要Dyson V6吸塵器

■ find_itempage(item="吸塵器", brand="Dyson", model="V6")

■ 我要找高檔的吹風機

請問你有偏好哪個國家生產的嗎?

■ find_itempage(item="吹風機", feature="高檔")

■ 我要找相關配件

■ find_itempage(function="配件")



請問你是要吹風機的配件嗎?

