

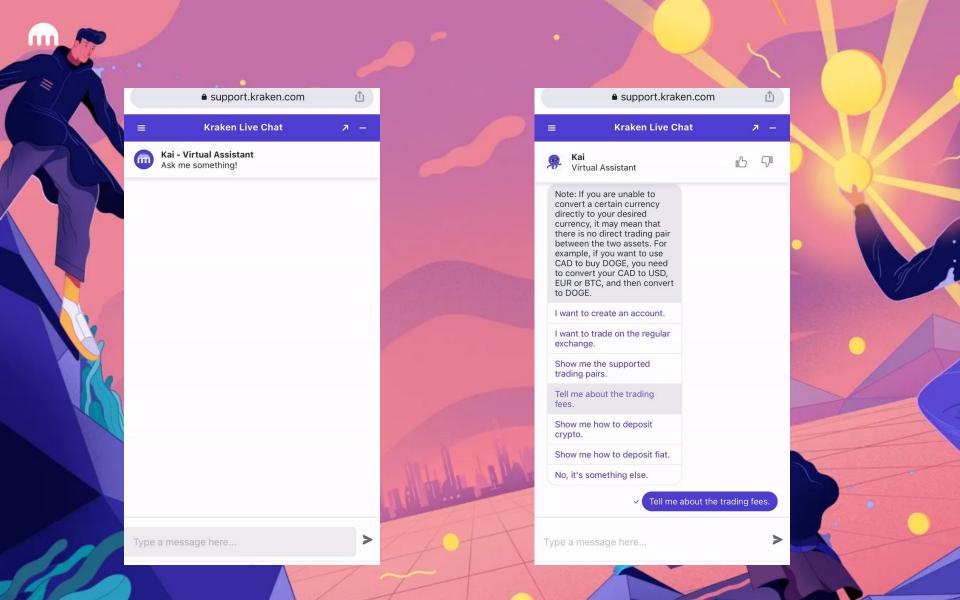
# The future is Automation



ChatBot = perfect example of Automation

- Artificial intelligence will displace 40% of jobs worldwide within 15 years
- 1.4 billion people use messaging apps and are willing to talk to chatbots
- Chatbots saw a 92% use increase since 2019, making it the brand communication channel with the largest growth
- Growing willingness to engage with chatbots in a variety of ways more than doubling from 2019 to 2020
- 87.2% of consumers rate their typical chatbot experience as within the range of neutral to positive







### Siren Prototype

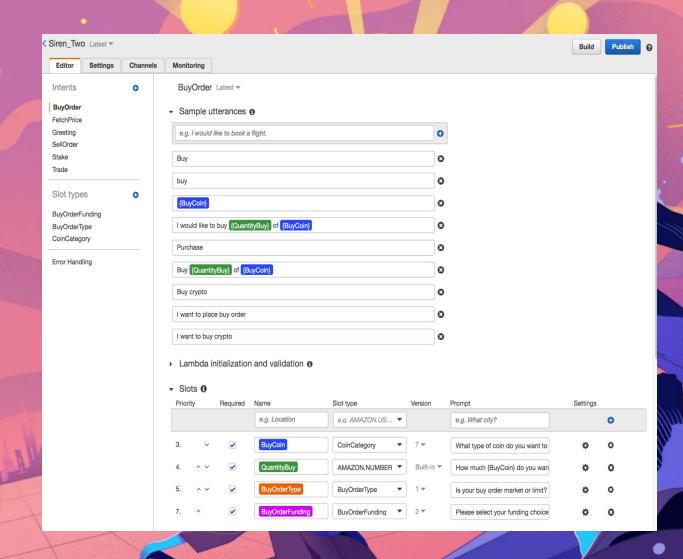
AWS Lex + AWS Lambda

Lex: 6 Intents- Greeting, Trade, BuyOrder, SellOrder, Stake and FetchPrice

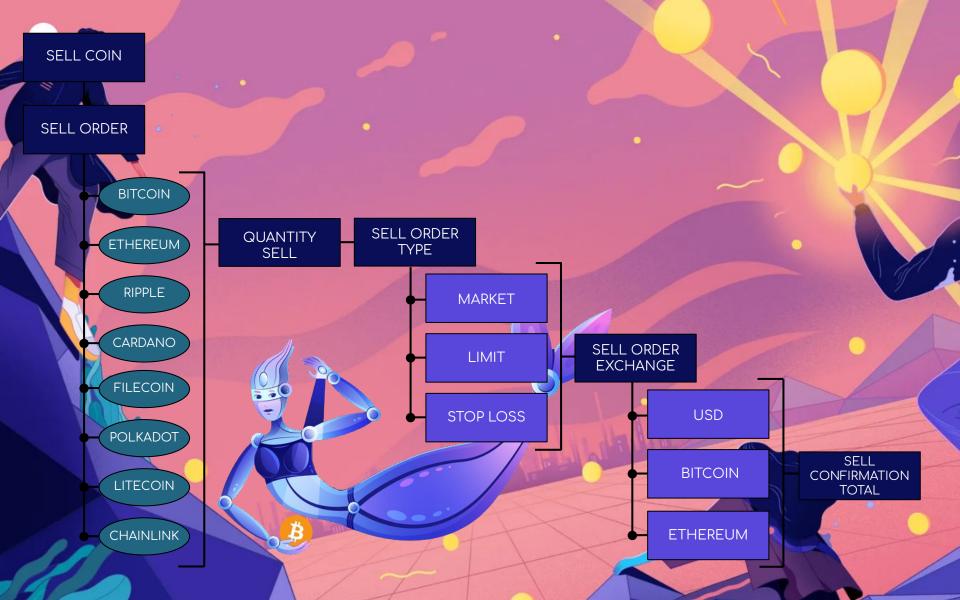
1-5 slots (each)

Prompts w/ response cards user's utterances -----> Siren's execution

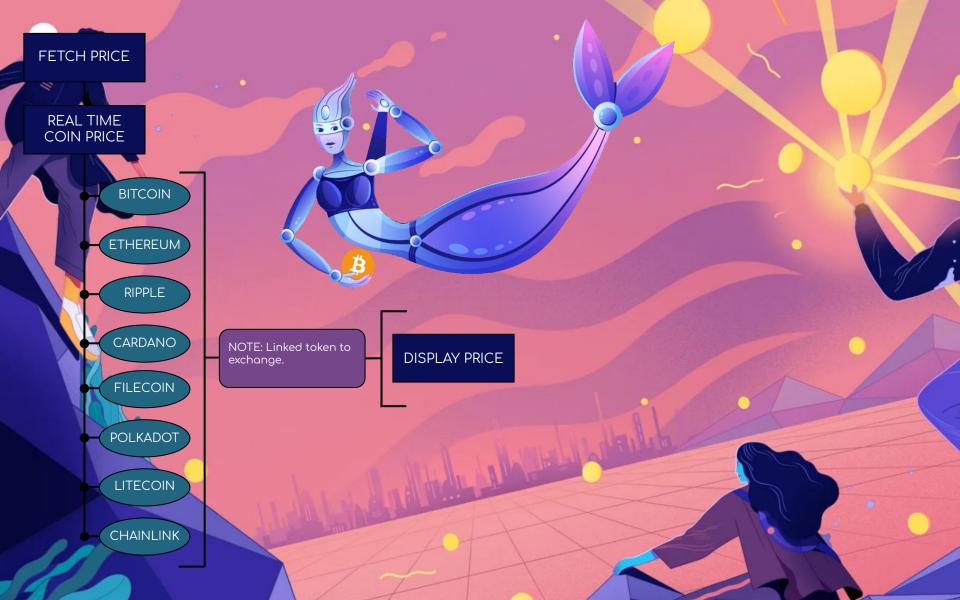
Lambda (Python) allows to implement custom business logic (ex. API call to Kraken fetching current market price)

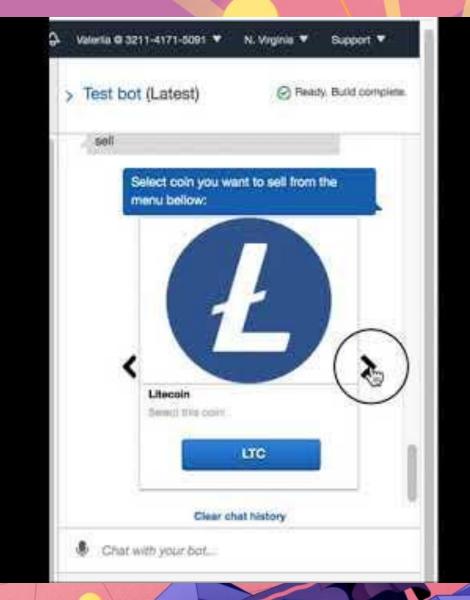












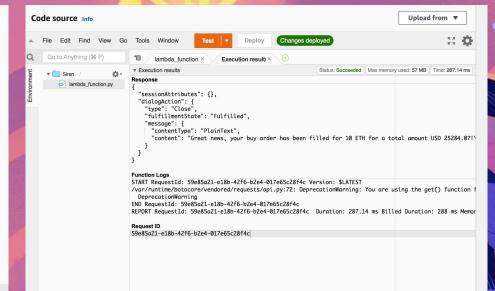
## **Backend Coding**

```
lambda function ×
                         Execution results ×
42
    def elicit_slot(session_attributes, intent_name, slots, slot_to_elicit, message):
43
44
        Defines an elicit slot type response.
45
46
47
48
         return {
49
             "sessionAttributes": session_attributes,
50
             "dialogAction": {
                 "type": "ElicitSlot",
51
52
                 "intentName": intent_name,
53
                 "slots": slots,
54
                 "slotToElicit": slot_to_elicit,
55
                 "message": message,
56
57
58
59
60
    def delegate(session_attributes, slots):
61
62
        Defines a delegate slot type response.
63
64
65
         return {
66
             "sessionAttributes": session_attributes,
67
             "dialogAction": {"type": "Delegate", "slots": slots},
68
69
70
71
    def close(session_attributes, fulfillment_state, message):
72
73
        Defines a close slot type response.
```

```
### PART 2
     ### RETRIEVING PRICE OF CRYPTO FROM KRAKEN.COM
         Retrieves the current price of cryto in US Dollars from the kraken.com API."""
     crypto_usd = 'adaxbt'
 92
     def price_usd(crypto_usd):
 93
         crypto_map = {
 94
              'xbtusd': 'XXBTZUSD',
 95
              'adausd': 'ADAUSD',
 96
              'ethusd': 'XETHZUSD',
 97
              'xrpusd': 'XXRPZUSD',
 98
              'dotusd': 'DOTUSD',
 99
              'filusd': 'FILUSD',
100
              'linkusd': 'LINKUSD',
101
              'ltcusd': 'XLTCZUSD',
102
         kraken_url = f'https://api.kraken.com/0/public/Ticker?pair={crypto_map[crypto_usd]}'
103
         response = requests.get(kraken_url)
104
105
         response_json = response.json()
106
         price = response_json['result'][crypto_map[crypto_usd]]['c'][0]
107
         return price
108
         Retrieves price of crypto bought using Bitcoin from the kraken.com API."""
109
     crypto_xbt = 'adaxbt'
     def price_xbt(crypto_xbt):
111
112
         crypto_xbt_map = {
113
              'adaxbt': 'ADAXBT',
114
              'ethxbt': 'XETHXXBT'
115
              'xrpxbt': 'XXRPXXBT',
116
              'dotxbt': 'DOTXBT',
117
              'filxbt': 'FILXBT',
118
              'linkxbt': 'LINKXBT',
              'ltcxbt': 'XLTCXXBT'
119
```

### **Backend Coding**

```
192 ### PART 3 Intents Handlers ###
193
194 def Buy_Order(intent_request):
195
196
         Performs dialog management and fulfillment for buying order.
197
198
         buy_coin = get_slots(intent_request)["BuyCoin"]
199
         quantity_buy = get_slots(intent_request)["QuantityBuy"]
200
         buy_order_type = get_slots(intent_request)["BuyOrderType"]
201
         buy_order_funding = get_slots(intent_request)["BuyOrderFunding"]
202
         order_price = 0
203
         if buy_order_funding == "ETH":
204
             pair = (buy_coin + buy_order_funding).lower()
             order_price = price_eth(pair)
205
206
             total_cost = round(float(quantity_buy) * float(order_price) * 1.0016,8)
         elif buy_order_funding == "XBT":
207
208
             pair = (buy_coin + buy_order_funding).lower()
209
             order_price = price_xbt(pair)
210
             total_cost = round(float(quantity_buy) * float(order_price) * 1.0016,8)
211
212
             pair = (buy_coin + buy_order_funding).lower()
213
             order_price = price_usd(pair)
             total_cost = round(float(quantity_buy) * float(order_price) * 1.0016,2)
214
215
         return close(
216
             intent_request["sessionAttributes"],
217
             "Fulfilled",
218
219
                 "contentType": "PlainText",
                 "content": """Great news, your buy order has been filled for {} {} for a total amount {} {}!
220
                 """.format(
221
222
                      quantity_buy, buy_coin, buy_order_funding, total_cost
223
```



## **Prospective growth of Siren**

Immediate - NLP + Machine Learning = intuitive and advanced Siren

Level Up 1- Execute more complex trades, stop loss and take profit orders etc

Level Up 2- Make Siren DeFi ready for Uniswap and Polkadex (user navigation)

- Defi efficiency to spot and execute on the exchange with the lowest exchange rates
- Spots trade arbitrage opportunity between time zones and exchanges

Level Up 3 - Siren AI exchange integrated trading bot for client subscription conducting all work

- Data collection over time will inform Siren common trade trends, sentiment, and when to execute an order
- Data collection allows Siren to identify type of market and adjust trading strategy (i.e. bull, bear, wave market)
- While Siren cannot predict the news, recognizing sentiment, it will adjust to market volatility



