We may want to introduce a framework (possibly a language) that will allow an easy construction of different scenarios. The agent's resources will be the private and world KB (NELL, Phenom and more), including the user state and rapport. The agent can use the tree parse of the sentence, the dependency parsing, pattern matching, whether the sentence is negative or positive, NER etc.

Here are some scenarios which such a framework may allow to construct:

Example #1:

U: I'm going on a vacation.

[add vacation. Required fields <location, start time, end time, was it good?>]

[look up last vacation]

A: Lovely! You definitely deserve one since the one you had last year in Prague. I remember that you enjoyed it!

A: Where is the vacation?

U: Can't talk now. I got to go.

[Do not bother user (this is regardless of the topic)].

Example #2:

Example #1 (extended Eliza style conversation, topic=test):

U: I have a big on Tuesday.

[add to invisible calendar <big test, Tuesday>, don't get additional fields like topic, the user just wants support]

A: Good Luck!

U: I have no chance to pass.

[detect a negative sentence, answer Eliza style with reflection]

A: Why do you say that you have no chance to pass?

U: I don't understand anything in Biology.

[detect negative sentence]

A: I'm sure that if you learn well and get enough sleep before you will do fine.

U: Ok, I'll try.

[detect positive sentence]

A: Great! That's the spirit!

[After test ask: how was it?]

Example #3:

U: I want to arrange a surprised birthday party for a friend.

[add surprised birthday party. required fields <prep\_object=friend, date/time, place>.]

A: Oh, how nice! Who is this friend?

U: Jessica.

[Look up Jessica in contacts (Phenom)]

A: Is this Jessica Tommar?

U: yes.

[update, object=Jessica Tommar]

A: When would you like to arrange this party?

U: Monday, at 2:00pm

[update date/time]

A: Where?

U: At my house.

[update location and add to calendar.].

A: Great! Should I text the following message to your friends…

Example #4:

U: when's my next bus home?

[Task: find bus. Required fields <source = get GPS location / phenom, target = home (phenom), time = now>].

A: In ten minutes; line 61C will be leaving from Forbes.

U: <Possible follow-up question…>

Example #5: general question

U: What is the closest planet to earth?

<Query KB, which may perform a web search etc.>

A: That would be Venus. Would you like to hear more about Venus?

U: I know enough about Venus. Why, is there any interesting news about it?

<Search for recent news mentioning Venus (planet).>

A: Yes, here is the recent news…

Example #6:

U: will it snow this week?

<look-up…>

A: there is a 30% chance that it will snow on Tuesday.

U: when?

A: in the after-noon.

Example #7:

U: call Joel

[Get from Phenom Joel, if there are several, detect which is the most likely]

A: Calling Joel Menta…

Example #8:

U: I hate Don Siegelman

[Detect negative. Use NER and get information from NELL (which may use web and news) on for something negative on Don Siegelman.]

A: Yes, me too! I heard that he was convicted for bribery, conspiracy and obstruction of justice charges for selling a spot on a hospital regulatory board to former HealthSouth CEO Richard Scrushy in exchange for $500,000 in donations to Siegelman’s 1999 campaign to establish a state lottery.

Example #9:

U: When is my wedding anniversary?

[Look in Phenom]

A: Sorry Amos, I don't think that you have ever told me.