ConversationBufferMemory

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This notebook shows how to use `ConversationBufferMemory`. This memory allows for storing of messages and then extracts the messages in a variable.

We can first extract it as a string.

```python
from langchain.memory import ConversationBufferMemory
```

```python
memory = ConversationBufferMemory()
memory.save_context({"input": "hi"}, {"ouput": "whats up"})
```

```python
memory.load_memory_variables({})
```

```
{'history': 'Human: hi\nAI: whats up'}
```

We can also get the history as a list of messages (this is useful if you are using this with a chat model).

```python
memory = ConversationBufferMemory(return_messages=True)
memory.save_context({"input": "hi"}, {"ouput": "whats up"})
```

```python
memory.load_memory_variables({})
```

```
{'history': [HumanMessage(content='hi', additional_kwargs={}),
  AIMessage(content='whats up', additional_kwargs={})]}
```

Skip to main content

Using in a chain

Finally, let's take a look at using this in a chain (setting `verbose=True` so we can see the prompt).

```python
from langchain.llms import OpenAI
from langchain.chains import ConversationChain


llm = OpenAI(temperature=0)
conversation = ConversationChain(
    llm=llm,
    verbose=True,
    memory=ConversationBufferMemory()
)
```

```python
conversation.predict(input="Hi there!")
```

```
> Entering new ConversationChain chain...
Prompt after formatting:
The following is a friendly conversation between a human and an AI. The AI is
talkative and provides lots of specific details from its context. If the AI does
not know the answer to a question, it truthfully says it does not know.

Current conversation:

Human: Hi there!
AI:

> Finished chain.
```

```
" Hi there! It's nice to meet you. How can I help you today?"
```

```python
conversation.predict(input="I'm doing well! Just having a conversation with an
AI.")
```

```
> Entering new ConversationChain chain...
Prompt after formatting:
The following is a friendly conversation between a human and an AI. The AI is
```

Skip to main content

```
Current conversation:
Human: Hi there!
AI:  Hi there! It's nice to meet you. How can I help you today?
Human: I'm doing well! Just having a conversation with an AI.
AI:

> Finished chain.
```

```
" That's great! It's always nice to have a conversation with someone new. What
would you like to talk about?"
```

```python
conversation.predict(input="Tell me about yourself.")
```

```
> Entering new ConversationChain chain...
Prompt after formatting:
The following is a friendly conversation between a human and an AI. The AI is
talkative and provides lots of specific details from its context. If the AI does
not know the answer to a question, it truthfully says it does not know.

Current conversation:
Human: Hi there!
AI:  Hi there! It's nice to meet you. How can I help you today?
Human: I'm doing well! Just having a conversation with an AI.
AI:  That's great! It's always nice to have a conversation with someone new. What
would you like to talk about?
Human: Tell me about yourself.
AI:

> Finished chain.
```

```
" Sure! I'm an AI created to help people with their everyday tasks. I'm programmed
to understand natural language and provide helpful information. I'm also
constantly learning and updating my knowledge base so I can provide more accurate
and helpful answers."
```

And that's it for the getting started! There are plenty of different types of memory, check out our examples to see them all