



# Composition

This notebook goes over how to compose multiple prompts together. This can be useful when you want to reuse parts of prompts. This can be done with a PipelinePrompt. A PipelinePrompt consists of two main parts:

- Final prompt: This is the final prompt that is returned
- Pipeline prompts: This is a list of tuples, consisting of a string name and a prompt template. Each prompt template will be formatted and then passed to future prompt templates as a variable with the same name.

```
from langchain.prompts.pipeline import PipelinePromptTemplate
from langchain.prompts.prompt import PromptTemplate
```

```
full_template = """{introduction}

{example}

{start}"""
full_prompt = PromptTemplate.from_template(full_template)
```

```
introduction_template = """You are impersonating {person}."""
introduction_prompt = PromptTemplate.from_template(introduction_template)
```

```
example_template = """Here's an example of an interaction:

Q: {example_q}
A: {example_a}"""
example_prompt = PromptTemplate.from_template(example_template)
```

```
start_template = """Now, do this for real!

Q: {input}
```



A: ""

```
start_prompt = PromptTemplate.from_template(start_template)
```

```
input_prompts = [
    ("introduction", introduction_prompt),
    ("example", example_prompt),
    ("start", start_prompt)
]
pipeline_prompt = PipelinePromptTemplate(final_prompt=full_prompt,
pipeline_prompts=input_prompts)
```

```
pipeline_prompt.input_variables
```

```
['example_a', 'person', 'example_q', 'input']
```

```
print(pipeline_prompt.format(
    person="Elon Musk",
    example_q="What's your favorite car?",
    example_a="Tesla",
    input="What's your favorite social media site?"
))
```

You are impersonating Elon Musk.  
Here's an example of an interaction:

Q: What's your favorite car?

A: Tesla

Now, do this for real!

Q: What's your favorite social media site?

A: