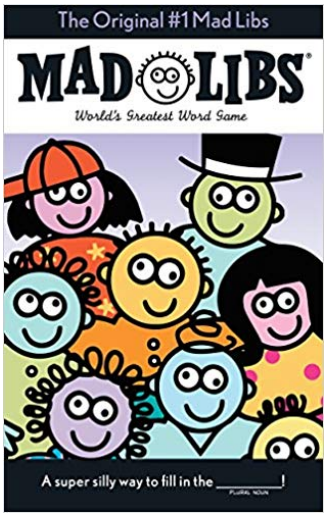
Flask Madlibs

Download our Starter Code <../flask-madlibs.zip>

In this exercise, you'll use Flask to make a Madlibs game.

About Madlibs



<_images/madlibs.jpg>

In Madlibs, you're asked a series of questions, like this:

```
plural_noun: turnips
verb: juggle
```

Those are then plugged into a story template, like this:

```
I love to {verb} {plural_noun}.
```

To create a story like:

```
I love to juggle turnips.
```

Code

We've given you some code to help with the core non-Flask-specific Madlibs part:

stories.py

```
"""Madlibs Stories."""


class Story:
    """Madlibs story.
```

```
    To  make a story, pass a list of prompts, and the text
    of the template.

        >>> s = Story(["noun", "verb"],
        ...     "I love to {verb} a good {noun}.")

    To generate text from a story, pass in a dictionary-like thing
    of {prompt: answer, promp:answer):

        >>> ans = {"verb": "eat", "noun": "mango"}
        >>> s.generate(ans)
        'I love to eat a good mango.'
    """

    def __init__(self, words, text):
        """Create story with words and template text."""

        self.prompts = words
        self.template = text

    def generate(self, answers):
        """Substitute answers into text."""

        text = self.template

        for (key, val) in answers.items():
            text = text.replace("{" + key + "}", val)

        return text


# Here's a story to get you started


story = Story(
    ["place", "noun", "verb", "adjective", "plural_noun"],
    """Once upon a time in a long-ago {place}, there lived a
       large {adjective} {noun}. It loved to {verb} {plural_noun}."""
)
```

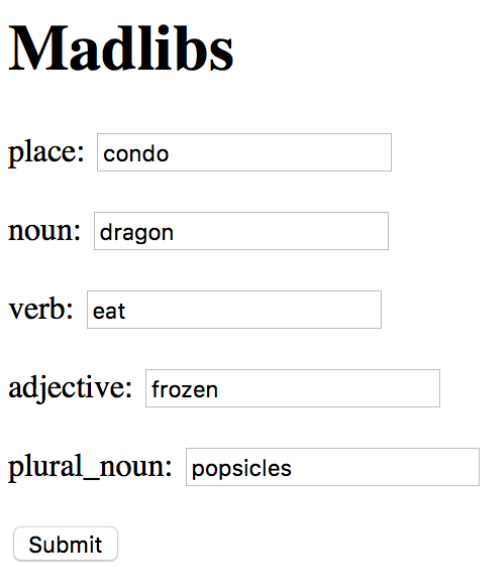
This allows you to define Madlibs stories, and it can generate the resulting story from a set of answers. (It's also a nice example of a small but useful class!)

We've created a story, ***story***, in that file.

> **Warning: STOP AND EXPLORE HERE**
>
> Before starting to make a Flask app, make sure you understand how this ***Story*** class works — go into *ipython* and try out the ***generate*** method on our sample story to get a feel for the text-generating process for Madlibs.

Challenge

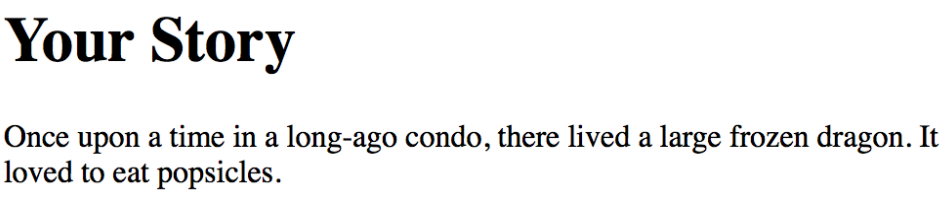
Write a Flask app that imports the example story. Add a homepage for the application that shows a form prompting you for all the words in the story:



<_images/questions.png>

Don't hardcode this, though — you want your form route to be able to ask for all of the questions required by the story, not for it to have a hard-coded form of asking these exact questions!

Add a route, ***/story***, that shows the resulting story for those answers, like this:



<_images/story.png>

For now, don't worry about having template inheritance or a ***base.html*** — later, in further study, you can refactor this to use template inheritance.

Further Study

Use Template Inheritance

Make a ***base.html*** template of common parts of your templates (like the ***<html>***, ***<body>***, and other common things, and change your templates so they inherit from this base template.

Allow User to Pick Story

Add a feature where there are several different story templates, rather than just one.

The homepage should change to a drop-down menu of the story templates. When the user picks a template, it should go to the page that prompts for the list of story questions. That should, as before, go to the page that shows the generated story.

Add CSS

Still want more? Add some CSS to your madlibs, storing the CSS file in a ***static/*** directory and referencing it properly, so Flask will serve it up.

Additional Further Study

What? More time? Add some JS to your madlibs – perhaps you can validate the form (make sure every question is answered, all answers are at least 3 characters long, all lowercase, etc) before you're allowed to submit the form.

Even more, you say??? Try to add a page to your application where uses can create their own madlibs, by providing a list of parts of speech, along with the text of the story. Submitting this form should create a new story instance that you could then select from the dropdown of stories.

Note: This will be challenging given what you know now! Consider it a super bonus. Also, because we don't yet know how to persist data, if you store you stories on the server in a list, that list will get reset every time you restart your server.

Solution

View Our Solution <solution/index.html>