The vet’s surgery

Sara Humphries

- Brief
- Initial & extension planning
- Demo
- Highlights: looping through a list to build a dictionary.

The vet’s surgery - brief

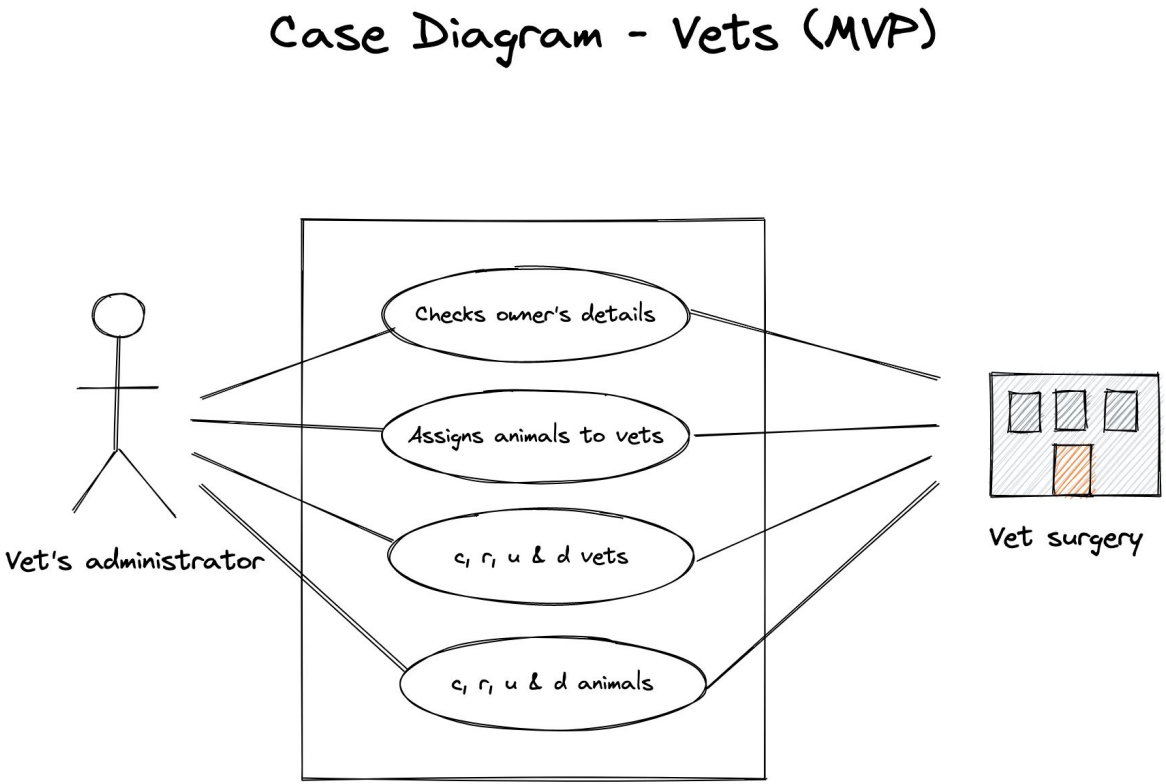
Vet Management App

A veterinary practice has approached you to build a web application to help them manage their animals and vets. A vet may look after many animals at a time. An animal is registered with only one vet.

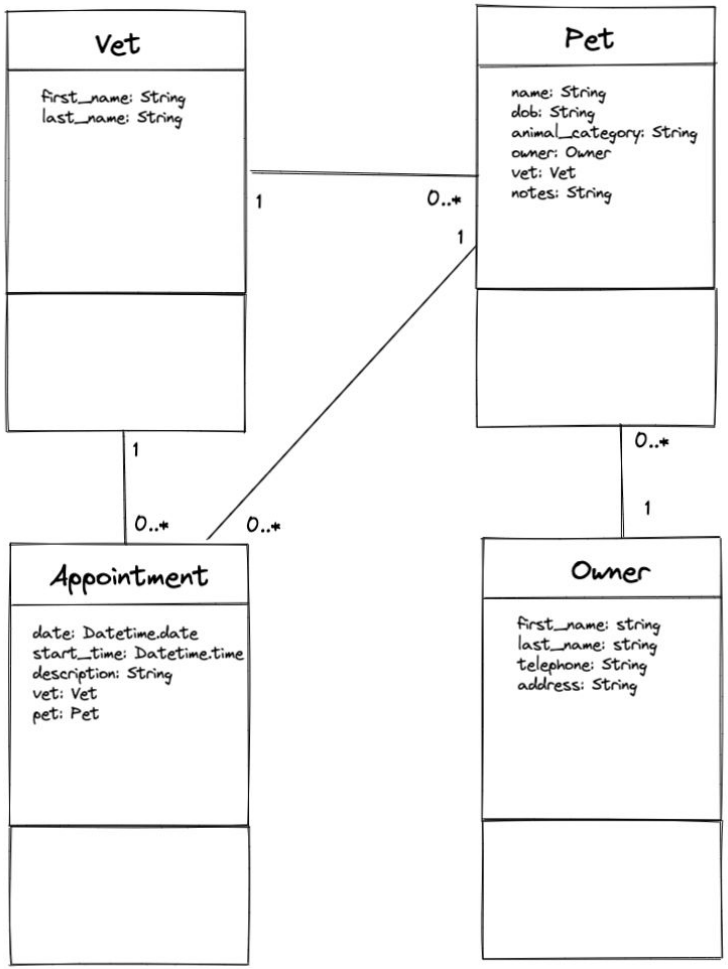
MVP

- The practice wants to be able to register / track animals. Important information for the vets to know is -
  - Name
  - Date Of Birth (use a VARCHAR initially)
  - Type of animal
  - Contact details for the owner
  - Treatment notes
- Be able to assign animals to vets
- CRUD actions for vets / animals - remember the user - what would they want to see on each View? What Views should there be?

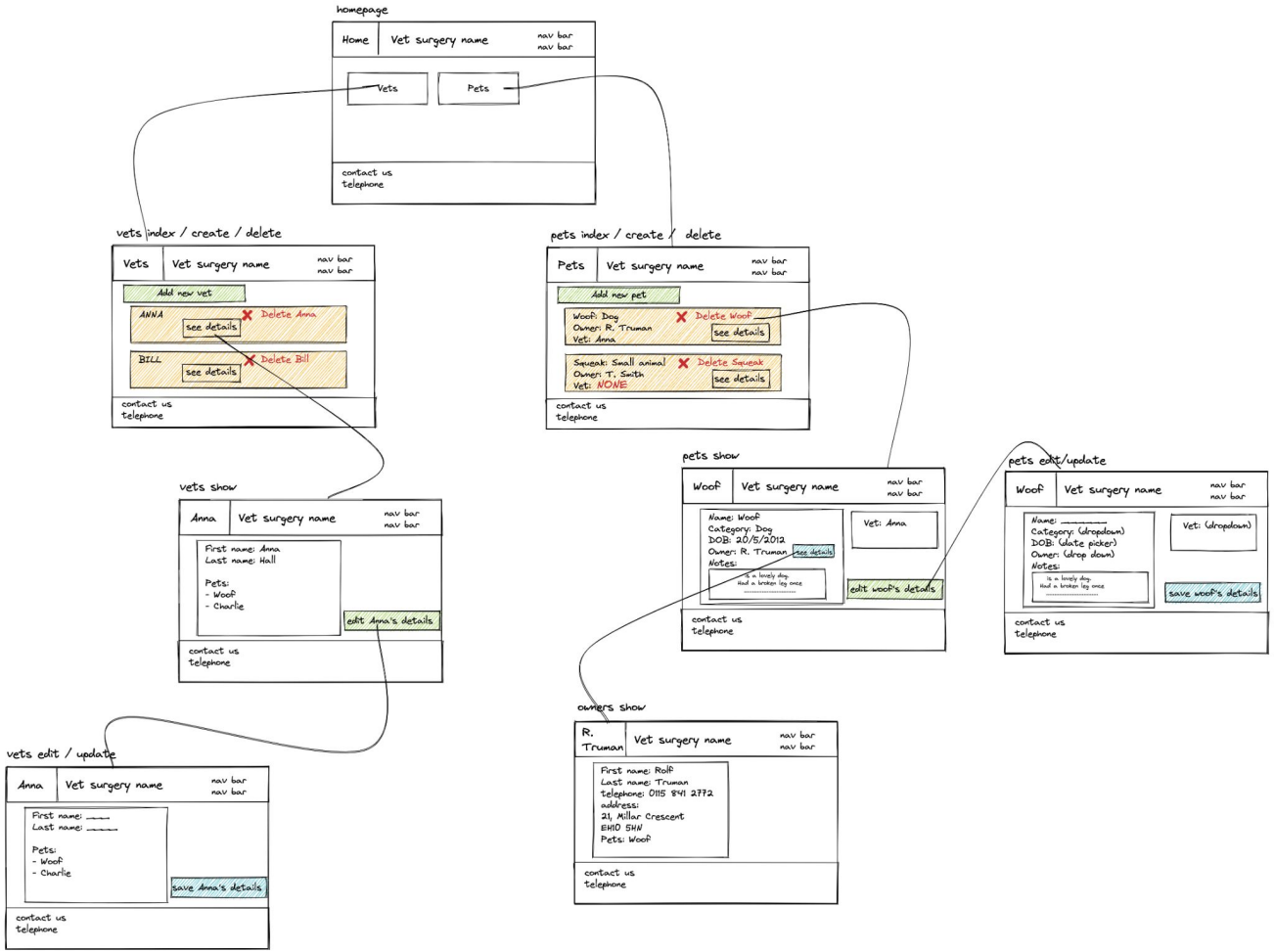
The vet’s surgery - MVP planning



Class diagrams
Database tables



Wireframes - Vets (MVP)



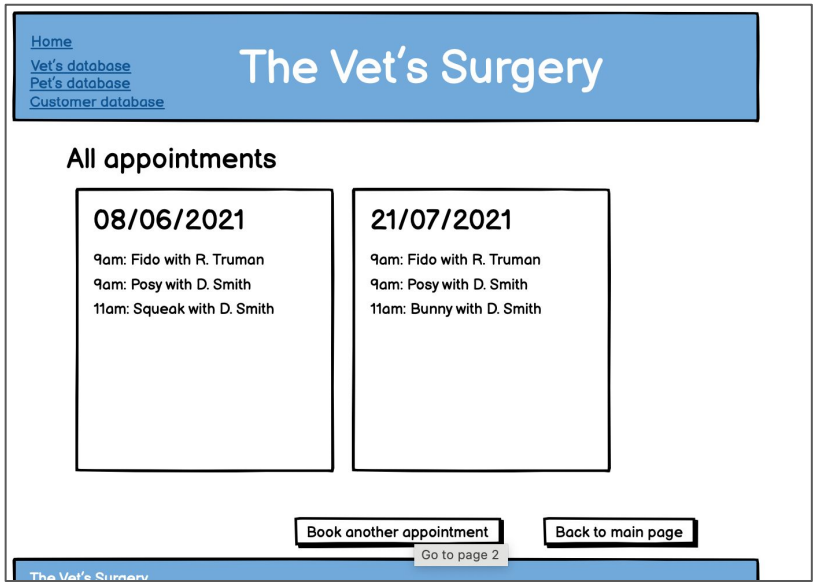
Extension planning

Wireflow

Demo

Fav code = looping through a list to aggregate data more usefully

Problem: Rather than see the appointments all listed underneath each other, I want to group them by date to look more like a diary



Fav code = looping through a list to aggregate data more usefully

Example: I collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first colour. Create a key ‘red’ with a count of 1

{ ‘red’: 1 }

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1

{ ‘red’: 1 }

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1

{ ‘red’: 1 ,
  ‘blue’: 1}

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2

{ ‘red’: 1 ,
  ‘blue’: 1}

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2

{ ‘red’: 1 ,
  ‘blue’: 2}

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2
4. Take the……..

{ ‘red’: 1 ,
  ‘blue’: 2}

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2
4. Take the……..

{ ‘red’: 1 ,
‘blue’: 2,
‘grey’: 1},

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2
4. Take the……..

{ ‘red’: 2 ,
‘blue’: 2,
‘grey’: 1},

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2
4. Take the……..

{ ‘red’: 2 ,
  ‘blue’: 2,
  ‘grey’: 1,
  ‘yellow’: 1}

Fav code = looping through a list to aggregate data more usefully

Example: If collected some data on the colour of cars that passed outside the CodeBase building yesterday:
[‘red’, ‘blue’, ‘blue’, ‘grey’, ‘red’, ‘yellow’, ‘blue’]

I want to find the mode (most common) colour (assuming I don’t know all the colours that a car might be)

1. Take the first item. Create a key ‘red’ with a count of 1
2. Take the next item. Check whether ‘blue’ exists as a key in the dictionary. No, so create a key ‘blue’ with count 1
3. Take the next item ‘blue’. Check whether ‘blue’ exists as a key in the dictionary. Yes! Increase the count to 2
4. Take the……..

{ ‘red’: 2 ,
  ‘blue’: 3,
  ‘grey’: 1,
  ‘yellow’: 1}

```python

car_colours = ['red', 'blue', 'blue', 'grey', 'red', 'yellow', 'blue']

agg_data = {}
for colour in car_colours:
    if colour in agg_data.keys():
        agg_data[colour] += 1
    else:
        agg_data[colour] = 1

print(agg_data)
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE 1: zsh

```
➜  planning git:(main) ✗ python3 presentation.py
{'red': 2, 'blue': 3, 'grey': 1, 'yellow': 1}
➜  planning git:(main) ✗
```

```
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date

```
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date

[{ ‘date’: ‘2021-06-10’, ‘appointments’: appointment_1 }]

```
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date

[{ ‘date’: ‘2021-06-10’, ‘appointments’: appointment_1 },
{ ‘date’: ‘2021-06-11’, ‘appointments’: appointment_2 }
]

```
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date

[{ ‘date’: ‘2021-06-10’, ‘appointments’: appointment_1, appointment_3 },
{ ‘date’: ‘2021-06-11’, ‘appointments’: appointment_2 }
]

```
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date

[{ ‘date’: ‘2021-06-10’, ‘appointments’: appointment_1, appointment_3 },
{ ‘date’: ‘2021-06-11’, ‘appointments’: appointment_2 },
{ ‘date’: ‘2021-06-15’, ‘appointments’: appointment_4 }
]

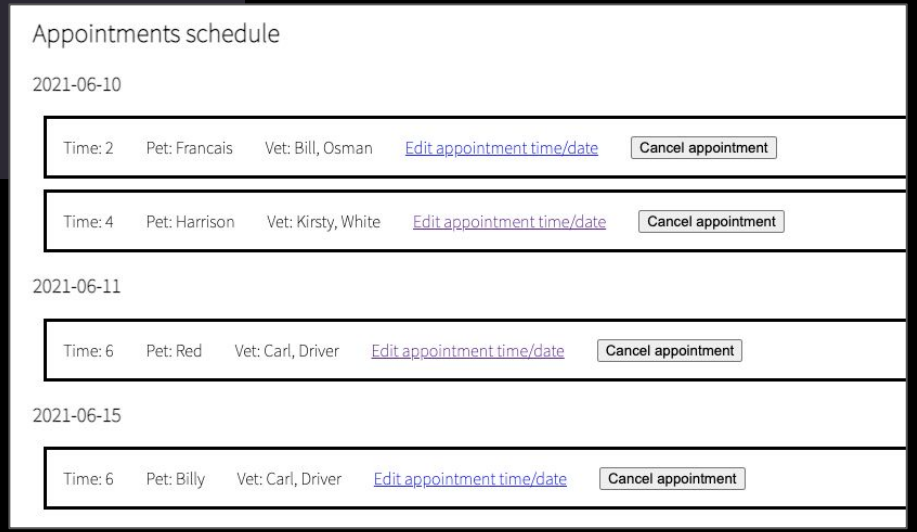
```python
def appointments_by_day(self):
    ordered_appointments = sorted(self.appointments, key=lambda k: k.start_time)
    diary = []
    for appointment in ordered_appointments:
        placed = False
        for day in diary:
            if appointment.date == day['date']:
                day['appointments'].append(appointment)
                placed = True
        if not placed:
            day = {
            'date': appointment.date,
            'appointments': [appointment]
            }
            diary.append(day)

    ordered_diary = sorted(diary, key=lambda k: k['date'])
    return ordered_diary
```

Loop through appointments

If appointment date is in there already, append to list

If not, make a whole new date




The End

The vet’s surgery - Fav error

```
@pets_blueprint.route('/pets/new', methods = ['POST'])
def create_pet():
    name = request.form['name']
    dob = request.form['dob']
    animal_category = request.form['animal_category']
    owner_id = request.form['owner_id']
    vet_id = request.form['vet_id']
    notes = ""
```

```
AttributeError: module 'werkzeug.wrappers.request' has no attribute 'form'
```

Fav error - top 3 google results

`AttributeError: module 'werkzeug.wrappers.request' has no attribute 'form'`

1 You confused the `requests` library with the `request` object from Flask. – Klaus D. Jul 8 '19 at 0:12

Request / Response Objects

The request and response objects wrap the WSGI environment or the return value from a WSGI application so that it is another WSGI application (wraps a whole application).

How they Work

Your WSGI application is always passed two arguments. The WSGI "environment" and the WSGI *start_response* function that is used to start the response phase. The **`Request`** class wraps the *environ* for easier access to request variables (form data, request headers etc.).

The **`Response`** on the other hand is a standard WSGI application that you can create. The simple hello world in Werkzeug looks like this:

```
from werkzeug.wrappers import Response
application = Response('Hello World!')
```

Contents

Navigation

readthedocs.org › werkzeug › downloads › pdf PDF

Werkzeug Documentation (0.15.x) - Read the Docs

26 Jan 2020 — If you are using Python 2, the venv **module** is **not** available. ... from **werkzeug**. **wrappers** import **Request**, Response ... url = **request.form**['url'] ... Also common headers are exposed as **attributes** or **with** methods to set / retrieve ...