Dynamic Responses

Agenda

SpectoLabs

- Why we need Dynamic Responses

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- Why we need Dynamic Responses
- Introduction to Templating

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- Why we need Dynamic Responses
- Introduction to Templating
- Exercises

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Request Data

Request Data

/api/v1/flights

Request Data

/api/v1/flights?to=London&from=Paris

Request Data

/api/v1/flights?to=London&from=Paris

```
[

{
    "cost": "2261.97",
    "destination": "London",
    "origin": "Paris",
    "when": "2006-01-02T15:04:05Z07:00"
},
{

    "cost": "422.20",
    "destination": "London",
    "origin": "Paris",
    "when": "2006-01-02T15:04:05Z07:00"
}
]
```

Dynamic Response

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/api/v1/flights?to=Tokyo&from=Milan

```
[

  {

      "cost": "2261.97",
      "destination": "Tokyo",
      "origin": "Milan",
      "when": "2006-01-02T15:04:05Z07:00"
  },
  {

      "cost": "422.20",
      "destination": "Tokyo",
      "origin": "Milan",
      "when": "2006-01-02T15:04:05Z07:00"
  }

]
```

Request Data

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/api/v1/flights?to=Barcelona&from=Mexico

```
[
    {
        "cost": "2261.97",
        "destination": "Barcelona",
        "origin": "Mexico",
        "when": "2006-01-02T15:04:05Z07:00"
    },
    {
        "cost": "422.20",
        "destination": "Barcelona",
        "origin": "Mexico",
        "when": "2006-01-02T15:04:05Z07:00"
    }
]
```

Request Data

Request Data

/api/v1/flights

Request Data

/api/v1/flights?when=today

Request Data

/api/v1/flights?when=today

```
[
    {
        "when": "2261.97",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-01-02T15:04:05Z07:00"
    },
    {
        "cost": "422.20",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-01-02T15:04:05Z07:00"
    }
]
```

Dates

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/api/v1/flights?when=tomorrow

```
[
    {
        "when": "2261.97",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-02-02T15:04:05Z07:00"
    },
    {
        "cost": "422.20",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-02-02T15:04:05Z07:00"
    }
]
```

Static is a problem

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Static is a problem

/api/v1/flights?from=London&to=Paris&plusDays=0

Static is a problem

/api/v1/flights?from=London&to=Paris&plusDays=0

Method	Path	Query Regex
GET	/api/v1/flights	(.*)

Static is a problem

/api/v1/flights?from=London&to=Paris&plusDays=0

Method	Path	Query Regex
GET	/api/v1/flights	(.*)

↓

```
[
    {
        "cost": "2261.97",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-02-02T15:04:05Z07:00"
    }
]
```

Static is a problem

/api/v1/flights?to=Tokyo&from=Milan&plusDays=0

Method	Path	Query Regex
GET	/api/v1/flights	(.*)

```
[
    {
        "cost": "2261.97",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-02-02T15:04:05Z07:00"
    }
]
```

Agenda

- Why we need Dynamic Responses
- Introduction to Templating
- Exercise: Implementing Templating

Templating

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Templating

Templating provides a lightweight means of dynamically generating responses

Handlebars

raymond `build` `passing` `godoc` `reference`

Handlebars for golang with the same features as handlebars.js `3.0`.

The full API documentation is available here: http://godoc.org/github.com/aymerick/raymond.

Handlebars

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```
{{variable}}
```

Handlebars

```
{{#if foo}}
{{variable}}
{{/if}}
```

Templating

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Templating

```json
[
    {
        "cost": "2261.97",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-01-02T15:04:05Z07:00"
    },
    {
        "cost": "422.20",
        "destination": "London",
        "origin": "Paris",
        "when": "2006-01-02T15:04:05Z07:00"
    }
]
```

Templating

```
[
    {
        "cost": "2261.97",
        "destination": "{{ Request.QueryParam.to }}",
        "origin": "{{ Request.QueryParam.from }}",
        "when": "{{ iso8601DateTime }}"
    },
    {
        "cost": "422.20",
        "destination": "{{ Request.QueryParam.to }}",
        "origin": "{{ Request.QueryParam.from }}",
        "when": "{{ iso8601DateTime }}"
    }
]
```

Dynamic Response

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Dynamic Response

/api/v1/flights?to=Tokyo&from=Milan&plusDays=0

Dynamic Response

/api/v1/flights?to=Tokyo&from=Milan&plusDays=0

```
[
    {
        "cost": "2261.97",
        "destination": "{{ Request.QueryParam.to }}",
        "origin": "{{ Request.QueryParam.from }}",
        "when": "{{ iso8601DateTime }}"
    }
]
```

Dynamic Response

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/api/v1/flights?to=Tokyo&from=Milan&plusDays=0

```
[
    {
        "cost": "2261.97",
        "destination": "{{ Request.QueryParam.to }}",
        "origin": "{{ Request.QueryParam.from }}",
        "when": "{{ iso8601DateTime }}"
    }
]
            [
                {
                    "cost": "2261.97",
                    "destination": "Tokyo",
                    "origin": "Milan",
                    "when": "2006-02-02T15:04:05Z07:00"
                }
            ]
```

Templating

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Type	Example	URL	Output

Templating

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Type	Example	URL	Output
Scheme	{{ Request.Scheme }}	http://www.foo.com	http

Templating

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Type	Example	URL	Output
Scheme	{{ Request.Scheme }}	http://www.foo.com	http
Query Param	{{ Request.QueryParam.param }}	http://www.foo.com?param=bar	bar

Templating

Type	Example	URL	Output
Scheme	{{ Request.Scheme }}	http://www.foo.com	http
Query Param	{{ Request.QueryParam.param }}	http://www.foo.com?param=bar	bar
Path Param	{{ Request.Path.[1] }}	http://www.foo.com/foo/ham	ham

Templating

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Type	Example	URL	Output
Scheme	{{ Request.Scheme }}	http://www.foo.com	http
Query Param	{{ Request.QueryParam.param }}	http://www.foo.com?param=bar	bar
Path Param	{{ Request.Path.[1] }}	http://www.foo.com/foo/ham	ham
State	{{ Request.State.key }}	State = {"key" : "value"}	value

Templating

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Type	Example	URL	Output
Scheme	{{ Request.Scheme }}	http://www.foo.com	http
Query Param	{{ Request.QueryParam.param }}	http://www.foo.com?param=bar	bar
Path Param	{{ Request.Path.[1] }}	http://www.foo.com/foo/ham	ham
State	{{ Request.State.key }}	State = {"key" : "value"}	value
Date Time	{{ iso8601DateTime }}	any	2017-11-18T17:52:44Z

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