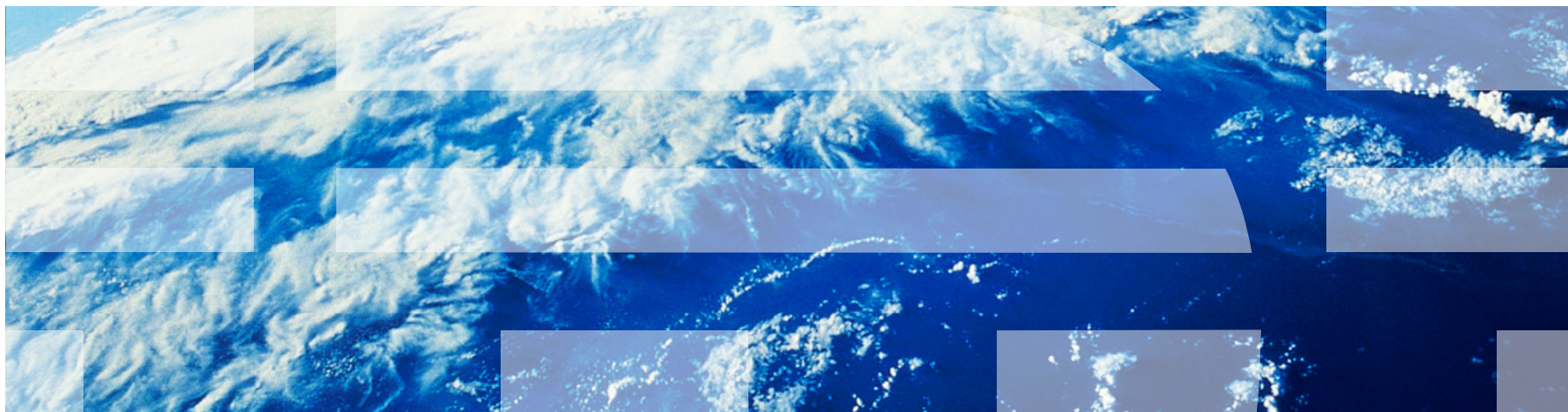# Занятие 6. Разработка бизнес-логики веб-приложений и контейнеризация

Цель и разделы

- Цель занятия — научиться использовать Flask и шаблонизаторы.

- Разделы:
    - Flask;
    - Hello, world!
    - Routes;
    - Subpaths;
    - Request;
    - HTTP Methods;
    - Jinja2;
    - Шаблоны;
    - Template rendering.

Flask

https://flask.palletsprojects.com/

Hello, world!

```python
from flask import Flask
app = Flask(__name__)


@app.route('/')
def hello_world():
    return 'Hello, World!'
```

Routes

```python
@app.route('/')
def index():
    return 'Index Page'


@app.route('/hello')
def hello():
    return 'Hello, World'
```

Subpaths

```python
@app.route('/user/<username>')
def show_user_profile(username):
    # show the user profile for that user
    return 'User %s' % escape(username)


@app.route('/post/<int:post_id>')
def show_post(post_id):
    # show the post with the given id, the id is an integer
    return 'Post %d' % post_id


@app.route('/path/<path:subpath>')
def show_subpath(subpath):
    # show the subpath after /path/
    return 'Subpath %s' % escape(subpath)
```

Request

```python
def generate_report(year):
    format = request.args.get('format')
```

HTTP Methods

```python
from flask import request

@app.route('/login', methods=['GET', 'POST'])
def login():
    if request.method == 'POST':
        return do_the_login()
    else:
        return show_the_login_form()
```

Jinja2

<https://jinja.palletsprojects.com/>

Шаблоны

```
<title>{% block title %}{% endblock %}</title>
<ul>
{% for user in users %}
  <li><a href="{{ user.url }}">{{ user.username }}</a></li>
{% endfor %}
</ul>
```

Template rendering

```python
from flask import render_template

@app.route('/hello/')
@app.route('/hello/<name>')
def hello(name=None):
    return render_template('hello.html', name=name)
```