Computer Science & AI
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Practical Course "Web Technologies"

Exercises 6

This exercise will give you practice using Django to setup up a backend.

Exercise 5.1.

a. Install Django via pip.

b. Create a directory 'DjangoExamples'.

c. Use a terminal to create a Django-project 'webprj' in the directory 'DjangoExamples':

```
django-admin.exe startproject webprj
```

d. Use a terminal to create a Django-app 'app1' in the directory 'webprj':

```
python manage.py startapp app1
```

e. In the directory 'webprj' start Django's web-server:

```
python.exe .\manage.py runserver
```

f. Check the installation by opening the URL 'localhost:8000' in a browser.

Exercise 5.2.

a. In the app's directory create a sub-directory 'templates'.

b. In this directory prepare a simple HTML-page 'index.html' with a Welcome-message.

c. In 'views.py' define a function `index` that returns a `HttpResponse`-object whose content is filled with the result of rendering the template 'index.html'.

d. Add a mapping of the URL 'app1/index' to `views.index`.

e. Test your web-app.

Exercise 5.3.

a. In the index-function add a list `tabdata` and add some values. Each value should be a tuple of two values.

b. Define a dictionary `content` and add `tabdata` as value of key `list1`.

c. Let the function `index` return a `HttpResponse`-object whose content is filled with the result of rendering the template 'index.html' using the key-value-pairs stored in `content`.

d. Extend the HTML-page 'index.html' with a table, e.g.

```
<table>
  <tr>
    <td>Content of colum 1</td>
    <td>Content of colum 2</td>
  </tr>
</table>
```

Formulate iterations over the dictionary `list1` using the template language in order to create the rows of the table. The values of the tuple have to be shown in separate columns.

e. Test your web-app.