University POLITEHNICA of Bucharest

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BACHELOR THESIS

Dynamic Webform Builder

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 $Thank\ someone?$

Dedicated to someone?

Abstract

Development time is an important topic today, with companies competing against each other in agile software development environments. By reducing the time needed to modify hard coded API URL's between successive deployments and by separating the front-end dependencies from the back-end companies can gain precious time and with that increase their income.

The project aims to provide a front-end application that is agnostic of the back-end structure, providing independence between the two platforms. The application will also be able to autogenerate generic UI components regardless of the data fetched from the API.

Keywords: Front-end, HATEOAS, REST, API, React, Django, python

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Introduction

1.1 Motivation

1.2 Background

In this section we will describe the base concepts that are used across this thesis. Therefore we will start by describing the concept of a web service in section 1.2.1 followed by explaining the base concepts behind the REST software architecture in 1.2.2 and it's HATEOAS constraint described in 1.2.3.

- 1.2.1 Web service
- 1.2.2 REST
- 1.2.3 HATEOAS
- 1.3 Objective

State of the art

This is just a demo file. It should not be used as a sample for a thesis.

- 2.1 Back-end Frameworks
- 2.1.1 Django
- 2.1.2 Tastypie

API

Schema

- 2.2 Frontend-end Frameworks
- 2.2.1 Bootstrap
- 2.2.2 React.js

Application architecture

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Implementation

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- 4.1 Django models
- 4.1.1 API
- 4.1.2 App structure
- 4.2 React components

Testing and evaluation

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Conclusions

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6.1 Further development

Bibliography