

Master Project Report

Teakwood: An Web Framework for Handling Many-task Computing

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the requirements for the degree of*

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in

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by

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Preface

Four years ago, I worked for an professor

Abstract

Using Linux commands to handle computing jobs can be a hurdle to the scientific researchers who don't have HPC related background. Teakwood provides a solution and beyond. Teakwood is a framework that migrates all the terminal typing work to a web console GUI, and provides user a total control of their jobs, data, computing resources and so on just by clicking buttons. Teakwood is also an open platform that enables user to work co-operatively. Through Teakwood, user can share their models, results, and computing resources within their group and have discussion in Teakwood forum. Teakwood is powered by Django.

Contents

1	Introduction	1
1.1	Motivation	1
1.2	Teakwood	1
1.3	Feature	1
2	Teakwood System	2
2.1	Overview	2
2.2	Frontend	2
2.3	Backend	2
2.4	Data handling	2
2.5	Remote Configuration	2
3	Backend Mystery	4
3.1	MTV framework	4
3.2	Models and Database	4
3.3	Django Template Language	4
3.4	Request-Response Flow	4
3.5	Lose Coupling	4
3.6	Powerful Admin	4
4	Asynchronous Handling	6
4.1	Celery	6
4.2	RabbitMQ	6
5	Use Case	7
5.1	Job Submission Flow	7
5.2	Job Monitoring	7
5.3	Job Report	7
6	Conclusion	8

7	Future Work	9
7.1	Docker Hub	9
7.2	Visualization	9
7.3	Computing on the GO	9
	Acknowledgements	10
	References	11

List of Figures

2.1	¡Caption here!	3
3.1	¡Caption here!	5
6.1	¡Caption here!	8

Chapter 1

Introduction

1.1 Motivation

1.2 Teakwood

1.3 Feature

Chapter 2

Teakwood System

2.1 Overview

2.2 Frontend

2.3 Backend

2.4 Data handling

2.5 Remote Configuration

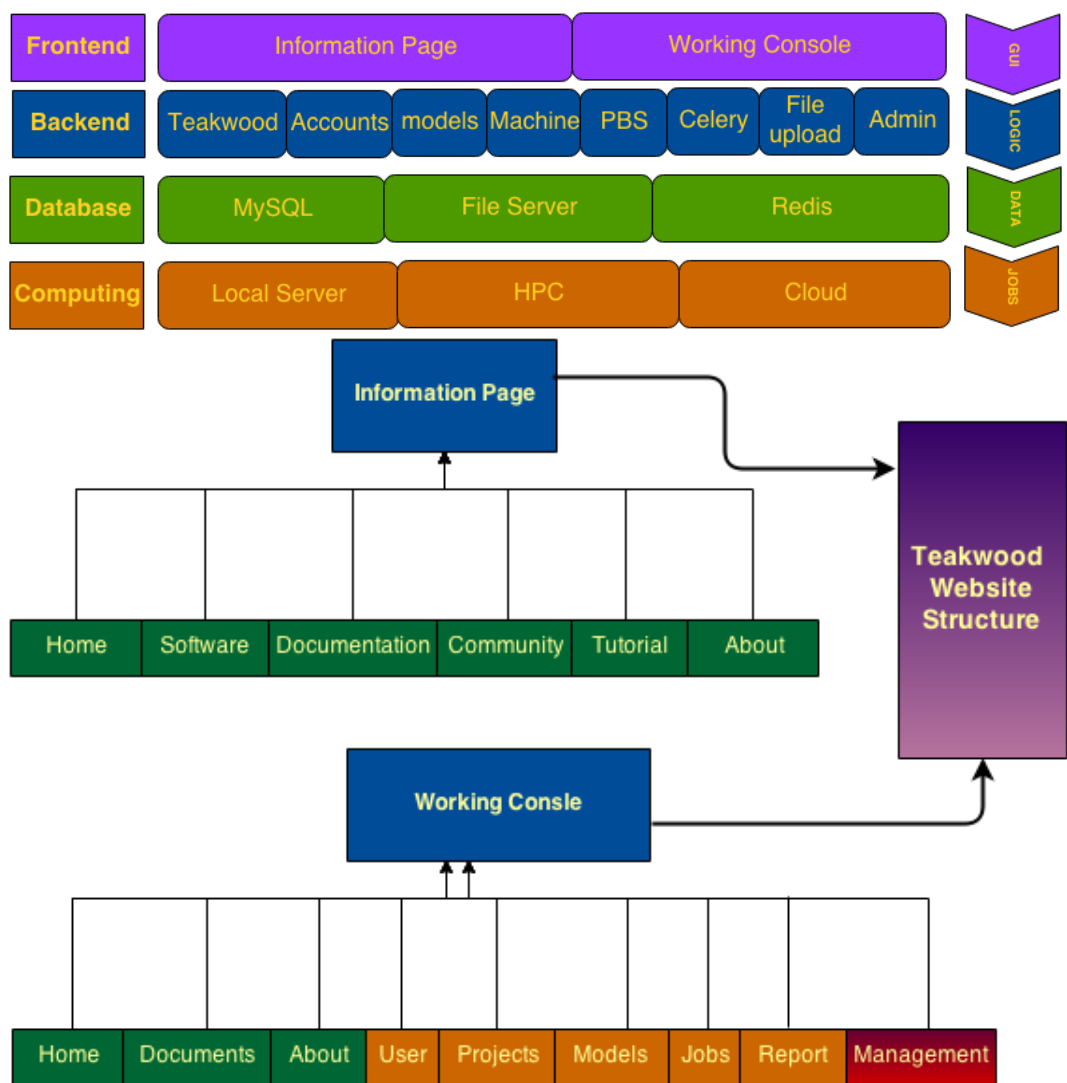


Figure 2.1: [Caption here]

Chapter 3

Backend Mystery

3.1 MTV framework

3.2 Models and Database

3.3 Django Template Language

3.4 Request-Response Flow

How Teakwood process a request from user?

3.5 Lose Coupling

3.6 Powerful Admin

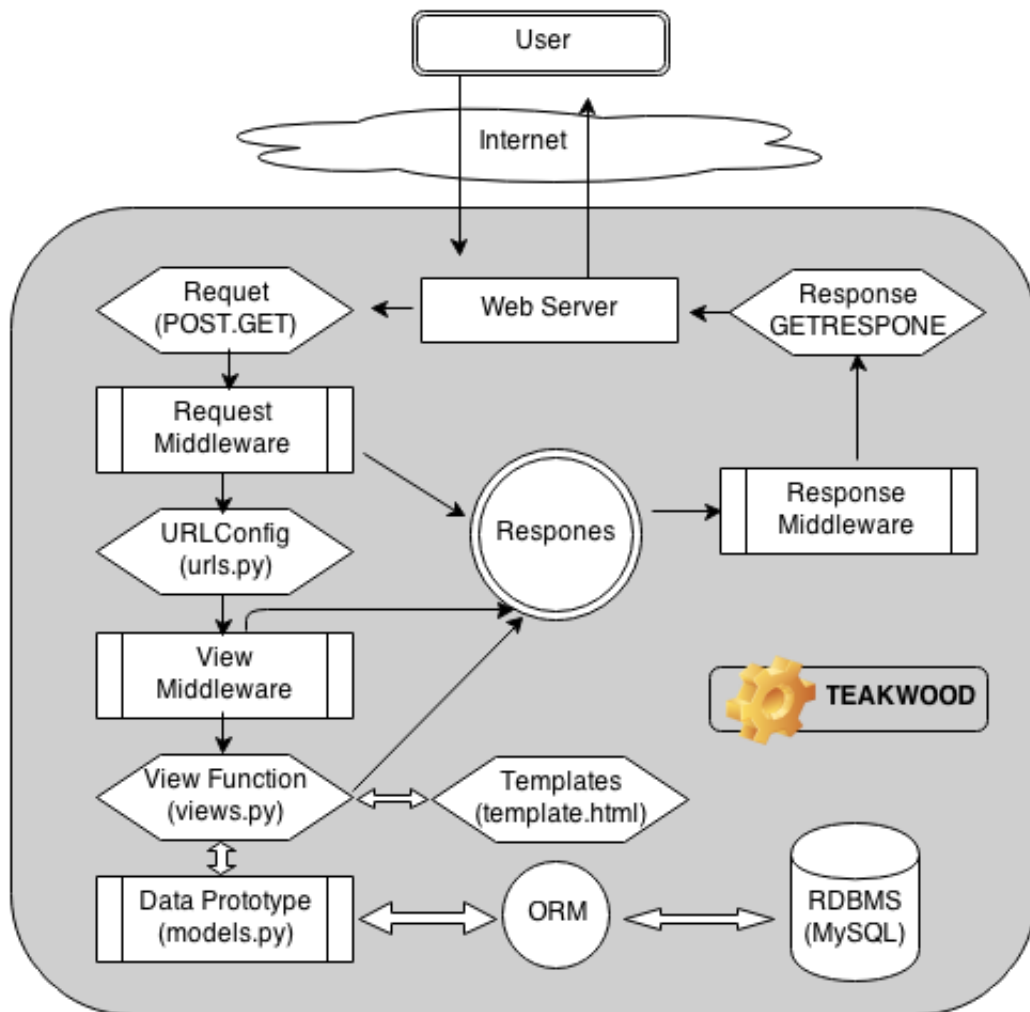


Figure 3.1: ¡Caption here!

Chapter 4

Asynchronous Handling

4.1 Celery

4.2 RabbitMQ

Chapter 5

Use Case

5.1 Job Submission Flow

5.2 Job Monitoring

5.3 Job Report

Chapter 6

Conclusion

How Teakwood process a request from user?

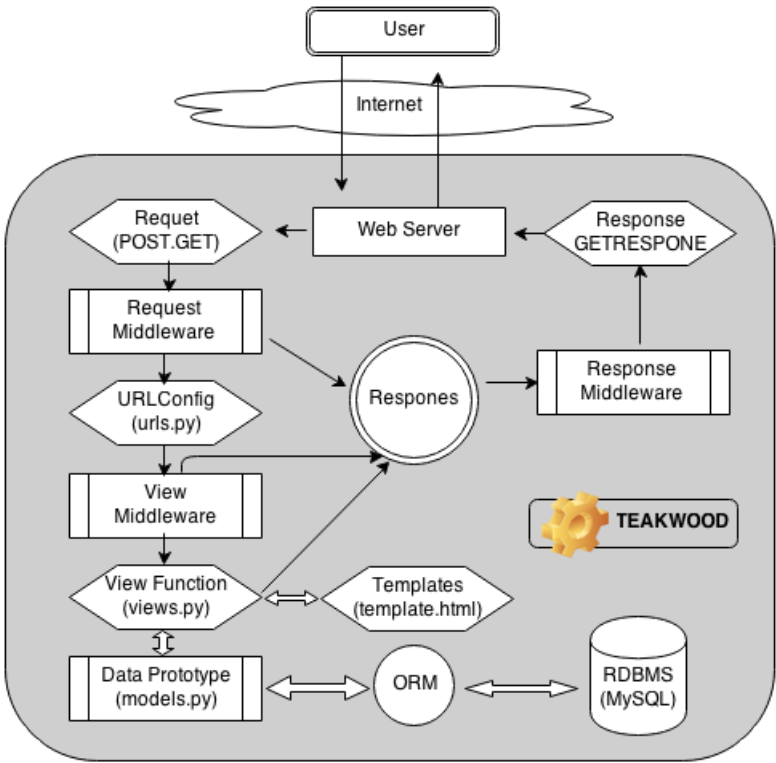


Figure 6.1: ¡Caption here¿

Chapter 7

Future Work

7.1 Docker Hub

7.2 Visualization

7.3 Computing on the GO

Acknowledgments

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National Institute of Technology Calicut

References

- [1] ;Name of the reference here;, <urlhere>
- [2] ;Name of the reference here;, <urlhere>