

REST APIs for DB services using Django

A thesis submitted to the department of

Computer Science & Engineering

of

International Institute of Information Technology, Bhubaneswar

in partial fulfilment of the requirements

for the degree of

Bachelor of Technology

by

Bhushan Prakash Khanale

(B516025)

under the supervision of

Harshad Mulmuley & Prof. Tapan Kumar Sahoo



Department of Computer Science and Technology

International Institute of Information Technology Bhubaneswar

Bhubaneswar Odisha - 751003, India



International Institute of Information Technology Bhubaneswar

Bhubaneswar Odisha -751 003, India. www.iiit-bh.ac.in

May 07, 2019

Undertaking

I declare that the work presented in this thesis titled REST APIs for DB services using Django, submitted to the Department of Computer Science and Engineering, International Institute of Information Technology, Bhubaneswar, for the award of the Bachelors of Technology degree in the Computer Science and Engineering, is my original work. I have not plagiarised or submitted the same work for the award of any other degree. In case this undertaking is found incorrect, I accept that my degree may be unconditionally withdrawn.

Bhushan Prakash Khanale

B516025



International Institute of Information Technology Bhubaneswar

Bhubaneswar Odisha -751 003, India. www.iiit-bh.ac.in

May 07, 2019

Certificate

This is to certify that the work in the thesis entitled *REST APIs for DB services using Django* by *Bhushan Prakash Khanale* is a record of an original research work carried out by her under my supervision and guidance in partial fulfillment of the requirements for the award of the degree of *Bachelor of Technology* in *Computer Science & Engineering*. Neither this thesis nor any part of it has been submitted for any degree or academic award elsewhere.

Harshad Mulmuley
Senior Software Engineer
Turtlemint Pvt. Ltd.

Tapan Kumar Sahoo
Associate Professor, Computer Science
IIIT, Bhubaneswar

Acknowledgement

The elation and gratification of this seminar will be incomplete without mentioning all the people who helped me to make it possible, whose gratitude and encouragement were invaluable to me. I would like to thank God, almighty, our supreme guide, for bestowing his blessings upon me in my entire endeavor. I express my sincere gratitude to Harshad Mulmuley & Prof. Tapan Kumar Sahoo for his guidance and support and students of my class for their support and suggestions.

Bhushan Khanale

B516025, CE

Abstract

Most of the databases now are shared between different tenants giving it a more complex architecture. Hence any updates being made to the database have to be properly authenticated and verified that the changes are for that specific tenant only. To solve this issue, we created a REST API service to manage database changes with integrated authentication using Django. REST is acronym for **RE**presentational **S**tate **T**ransfer. It is architectural style for distributed hypermedia systems. Django is an open-source high-level Python Web framework that encourages rapid development and clean, pragmatic design. By the features of Django and Django REST Framework we were able to solve all database needs for the firm.

Keywords: rest, django, database