Universitetet i Sørøst-Norge

Project Title

CS4010: Data Management Course

Student Number

Student Number

Student Number

Department of Science and Industry Systems

Faculty of Technology, Natural Sciences and Maritime Sciences

University South-Eastern Norway, 2021

Contents

Chapter 1

Introduction

In today's world, we suffer reduced efficiency due to heavily duplicated data. This means that you must edit the same data several times and on several sources in order for the change to take effect. Fort our project, we have been researching a possible solution to this problem: linked open data and the semantic web.

1.1 Problem Statement

For this project we have worked towards the goal of structuring, linking, and publishing open data from Norway in order to contribute to the LOD cloud, and by extension, the semantic web.

1.2 Objective

Our main objective for this project has been to publish a dataset to the LOD cloud and receive a 5-star rating.

Figure 1.1: vvvvv

1.3 Assumption and limitations

The main assumption for this project is that we assume that we are able to carry out our objective within the given timeframe. Due to the timeframe, we also had to limit the scope of our project to one dataset. If this turned out to be easier than we originally thought and we had time to spare, we could add another dataset then.

Chapter 2

Theoretical Background

2.1 Semantic web

This is the web of linked data. The semantic web is made from web-enabled data stores, vocabularies, and rules for handling data **semantic**.

2.2 RDF

2.3 Namespace

2.4 OWL

2.5 Ontology

According to [2], an ontology is: *An ontology defines a common vocabulary for researchers who need to share information in a domain.*

2.6 Turtle

2.7 SPARQL

SPARQL is a query language for RDF **sparql**.

2.8 The 5 stars

We have previously mentioned that our objective includes getting a 5-star rating, but what does that mean? The five stars is a deployment scheme for LOD suggested by Tim Berners-Lee **lod**.

Chapter 3

Literature Review

As previously mentioned, the idea for this project came from [!]. This article was written as part of the Semicolon project **semicolon**.

3.1 The Semicolon project

Chapter 4

Research Methodology

4.1 Choice of technology

4.2 Data collection process

4.3 System architecture

Chapter 5

Results

Results of your work.

Chapter 6

Discussion and Conclusions

Discuss your results, challenges and conclude your work here.

References

Appendices