UNIVERSITÀ DI PISA

MSc Computer Engineering
Artificial Intelligence and Data Engineering

Large-Scale and Multi-Structured Project

Board-Game Cafè Java Application

(Social Network)

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Introduction

The Board-Game Cafè Application

Board-Game Café is a social networking application designed for board games enthusiasts that provides several functions for taking information about it, staying up-to-date on people's opinions about board games based on their own experiences, and much more.

Non-registered Users can only browse in read-only mode the contents of the application without the ability to perform actions that in any way lead to possible undesirable consequences for the purpose of respecting the content uploaded by registered users.

Registered Users can browse among a large number of Board Games with the possibility to read their specifications, write a review and give a rating, create posts in which a topic related to a board game can be covered and moreover they can also interact with other users by following them and commenting on their posts.

Admins can manage Users, Board Games, Post, Comment and Reviews with special privileges. They also have access to the usage analytics of the application and Ban Users if needed.

Feasibility Analysis

First of all we conducted a Feasibility Analysis to well understand – To be continued

Web Scraping for Dataset

To Write

Data Processing

To Write

Development

Explanation of Development Concept and its phases – To be Write

Requirements

To Write

Functional

To Write

Non-Functional

To Write

CAP Theorem

To Write

Design

To Write

Main Actors

To Write

Use Case Diagram

To Write

Class Diagram

To Write

Data Modeling

To Write

Document DB: Mongo DB

To Write

Mongo Queries

To Write

Graph DB: Neo4j DB

To Write

Neo4j Queries

To Write

Distributed Database

To Write

Replica Set

To Write

Replica Configuration

To Write

Replica Crash

To Write

Sharding Proposal

To Write

Software Architecture

To Write

Frameworks

To Write

Implementation

In our implementation we have utilized different classes such as:

- *Class Name*
- *Class Name*

Source Code and Package Structure

To Write

Model Classes

To Write

Mongo DB Management

To Write

CRUD Operations

To Write

Queries Implementation

To Write

Neo4j DB Management

To Write

CRUD Operations

To Write

Queries Implementation

To Write

Database Consistency Management

To Write

Update

To Write

Delete

To Write

Index Analysis

To Write

Mongo DB

To Write

Neo4j DB

To Write

Unit Test

This section presents – To Write

JUnit Framework

Most used in Java application – To be continued

Tests

Performed for – To be continued

GUI – Graphical User Interface

This section presents – To Write

Conclusion

To Write

References

Our work can be found and accessed at the following GitHub link:

- https://github.com/g-sferr/BoardGame-Cafe_App/tree/master