

Flarion Low-Level Engineer Interview Task

Introduction

In this task you will be required to build and run a low level software library, make changes to it, and test the changes you made to guarantee robust software. Please share your thinking in documentation whenever you encounter design or implementation dilemmas.

For engineers that are proficient in Rust, the task should take 4-6 hours to complete.

Background

1. Datafusion (<https://github.com/apache/datafusion>) is a leading query engine implemented in Rust, allowing users to maximize the efficiency of SQL operations.
2. Spark (<https://github.com/apache/spark>) is a unified analytics engine for large-scale data processing, allowing users to run complex SQL operations at scale.
3. Spark offers a wide range of functions for data processing, as detailed here - <https://spark.apache.org/docs/3.1.3/api/python/reference/pyspark.sql.html>

Task

Implement the Spark function “greatest” (<https://spark.apache.org/docs/latest/api/python/reference/pyspark.sql/api/pyspark.sql.functions.greatest.html#pyspark-sql-functions-greatest>) in Datafusion. Please do not use Datafusion's [SQL API](#) but feel free to use any other tool or interface that Datafusion provides.

Consider edge cases and write tests to validate your solution.

Good luck!