Bachelor's Thesis
Global Warming Scoring Solution for Sustainable Investment

**Dipl.-Ing. Dr.
Markus Weninger, BSc**
Institute for System Software

P +43-732-2468-4361
F +43-732-2468-4345
markus.weninger@jku.at

Student: Stefan Haslhofer
Advisor: Dipl.-Ing. Dr. Markus Weninger, BSc
   uni software plus GmbH Supervisor: Dipl.-Ing. Dr. Michael Aichinger
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Sustainability and as part of it climate friendly/neutral investing is getting evermore important for private and institutional investors. As such, there is a need for metrics that classify the sustainability of investment instruments based on the behavior of the companies behind them. In a collaborative project, uni software plus GmbH develops a solution to measure a company's global warming potential based on its greenhouse gas emissions and other metrics.

The goal of this bachelor thesis is to model a database and implement services suitable to store provided market data as well as transforming it into an understandable format. An external model will then accept this format and calculates the respective temperature score, which subsequently also has to be stored in the database. This system will be containerized and deployed to the Google Cloud, therefore needing to use resources as efficient as possible in order to minimize costs.

Following tasks must be achieved:

- Design of a cloud-ready micro-service architecture and database.

- Optimization of performance and resource usage/parallelization of different services in order to minimize costs.

- Implementation of a service loading and saving market data as well as providing endpoints to send and receive information to and from the temperature score data model

- Administration of a cloud application

- Ensure scalability in order to support multiuser operation

- (nice to have) small frontend to display the calculated metric

Modalities:
The progress of the project should be discussed at least every two weeks with the company supervisor and at least once per month with the advisor. A time schedule and a milestone plan must be set up within the first 3 weeks and discussed with the advisor and the supervisor. It should be continuously refined and monitored to make sure that the thesis will be completed in time. The final version of the thesis must be submitted not later than 31.09.2022.