

GamePoint - Build a gamification engine

2-LINER description: Analyze, design and build a gamification engine that can host games, leaderboards and rewards that is also provided with an API which other applications can use to integrate it into their own gamification functionalities.

[Description of the assignment]

- At ToThePoint we're always running some kinds of competitions. These range from
 - Who can post the most read article within 30 days?
 - Who has shared the most-liked work related foto on Instagram?
 - Who can design the best-looking flyer for our next event
 - etc
- Each of these competitions is linked to a certain application within our ToThePoint intranet. These applications post relevant messages to a Kafka message bus on which these events can be consumed by interested 'customers'
- One of these 'customers' is a gamification engine. This engine will subscribe to the events that contribute to the scoring on one or more of these competitions and it will use this data to grant karma to the person that initiated the event. By doing this, we want to keep track of the scoring and use this data to visualize it in a leaderboard. We also want to use a REST api to make the data public for external consumption outside the gamification engine. Each competition should be able to be initiated inside the gamification engine, followed up upon and finish with the correct awards attributed to the correct winner.

[Goals]

- Functional analysis
- Design of a responsive UI
- Development of both backend and frontend following the self-contained systems architecture
 - (Take note of Stefan Tilkov's talk about SCS on <http://scs-architecture.org>)
- The creation of a continuous deployment pipeline
- Deployment with Docker on a Google Cloud-hosted Kubernetes cluster

[What will you gain?]

- You will experience how to design, develop and put in production an end-to-end enterprise-grade production-ready web application.
- You will gain knowledge and experience about Kafka (the high throughput message bus behind LinkedIn)
- You will gain knowledge and experience about Docker
- Real-world knowledge about and experience with Kubernetes and Google Cloud
- That lovely feeling you get knowing your design will be used in production

[What do you need?]

- Interest in a challenging but informative assignment
- Basic knowledge of Java (and optionally Spring Boot or the will to learn)
- You are curious to use Vue.JS to build a responsive UI with
- You can't wait to learn a heck of a lot in a relatively limited time period

[Location of the assignment]

- Veldkant 33B, 2550 Kontich

[Your mentor]

- Steven Heyninck – Business Unit Manager ToThePoint

[Technologies you will be using]

- Java
- Spring Boot
- Vue.js
- Docker
- Kubernetes
- Google Cloud
- Kafka