Requirements specification for Twitter dashboard display in Batavierenrace

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GROUP 05

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1.       Introduction

The Batavierenrace is the world’s largest relay race, happening at the end of April every year. The total walking distance is more than 175 kilometers and is divided into 25 stages (16 men and 9 ladies). The route runs from Radboud Sports Center Nijmegen, via Germany, the quiet Achterhoek and the Oude Markt in the heart of Enschede to the University of Twente University. Every year, more than 8500 athletes participate - naturally, the event generates a lot of social media buzz.

The organizers of Batavierenrace want to capture this buzz and display it during the event, in a fun, encouraging form. We are going to focus on twitter, because of its natural advantage in generating hype for real time events - tweets can’t be any longer than 140 characters, have a big reach (through retweets) and a handy way of separating them into various topics (by using hashtags). We also want to create a system that is available outside of the event - so that supporters at home have an easy way to see what’s happening in Batavierenrace. Given that we want to display the tweets in real time during the event, a filter for offensive tweets is a must. Furthermore, since big moments can generate a sort of “flood” of tweets, we want to have tools for their visualization - be it University “hype” meter, a search function and similar.

2.       Important stakeholders

* Organisation of the batavierenrace
* Sponsors
* Participants
* Supporters
* Twitter users
* Developers

3.       Mission statement

Motivation: By making a tweet visualization dashboard we encourage participants to talk about it on social media, which serves as a great engagement tool and a free advertisement outlet.

Type of system: a dashboard that takes “tweets” - messages - from [www.twitter.com](http://www.twitter.com) and displays them in real time

Goal of the system: The system allows the users to filter these tweets and to visualize them in the various ways described in the functional requirements

Exclusions: the system can only filter based on keywords, which means that some tweets about the event may be lost, and some offensive tweets might slip past the filter system

Approach: the system will be implemented as an webpage, with the background provided by ECA, in which we code rules (with python) in order to filter tweets, ECA also delivers tweets time based (to simulate the real world)

4.       Constraints, assumptions, definitions

a.       Constraints

Tweets are going to be delivered stepwise by ECA

Filters will be applied every time a tweet comes in, filters will be written in python.

The system has to be ready before November 3rd

b.       Assumptions

For the design of the system it is assumed we will have at least some tweets concerning our topic

c.      Definitions

Tweet - a short message(140 characters) sent using the           social media site Twitter

ECA - software developed by the teachers that delivers tweets from a certain txt file and handles the output (filters, outputs to webpage)

5.       Functional requirements

a.       Setting up

MoSCoW system by colors - Must have, Should have, Could have, Won’t have

Requirements:

* As an operator i want to blacklist words
* As an organiser of the batavierenrace I want the system automatically exclude spammers from the feed.
* As an organiser I want the system to display tweets from the organisation in a separate part of the dashboard.
  + - Test with tweet from @batavierenrace (pass)
    - Test with tweet from @henkkrol (fail)
* As an organiser of the batavierenrace I want the system to automatically filter offensive tweets.
  + Test with offensive tweet containing swear words (fail)
  + Test with normal tweet (pass)
  + Test with happy tweet (pass)
  + Test with tweet supporting cancer research (pass)
* As an organizer of the batavierenrace I want to be able to visualize tweets at the event. (on billboards etc.)
* As a user I want to see the the twitter rank of my university
* As a user I want to be able to search  for tweets about certain teams.
* As the event organiser I want to be able to filter by hashtag.
  + Test with tweet containing a given hashtag (pass)
  + Test with tweet containing part of the given hashtag #(given hashtag)xxxxx (pass)
  + Test with tweet not containing hashtag (fail)
* As a user I want to be able to filter out tweets without a certain text.
* As an organiser from the batavierenrace I want the system to be able to have a floodgate ( a system that automatically prevents excessive tweeting from a single source)
* As the organiser of the batavierenrace I want to be able to do a raffle
  + tweet with the keyword in it (pass)
  + tweet with the keyword not present (fail)
  + tweet with the keyword, but not with the batavierenrace hashtag (fail)

6. Quality requirements

* It should be impossible for a single malicious user to ruin our dashboard
* The dashboard should be able to handle the flow of tweets (multiple tweets coming in quickly after another)

Appendix A, report about validation

For our interview we chose Frank Somhorst. Frank was part of the organisation of the Batavieren race in 2017 and is going to be part of it for the 2018 event.

During the interview we mostly focused on how to effectively utilise Twitter for the event advertisement, participant enjoyment and engagement. We discussed our initial ideas of trying to group those tweets, for example separating them based on city/university mentions, and then visualizing them in various ways - charts, graphs and scoreboards etc. Our stakeholder Frank thought this was a great approach for using Twitter, and suggested displaying it not only on a website, but on physical screens during the event.

We did not really get onto anything new, but we did have a good discussion about what we needed to do for the dashboard. We did remove the requirement where, we were going to play an animation when someone says congratulations , because this is just a silly idea and will get really annoying after a while. Also when people know this feature it can easily be abused.

All in all, the interview went pretty well. The stakeholder enjoyed most of our ideas, while also reiterating the importance of spam/maliciousness prevention.