

Introduction to Software Engineering

First Iteration - Trend It

Filipe Gonçalves, 98083 - Team Manager

Pedro Lopes, 97827 - DevOps

Vicente Costa, 98515 - Architect

João Borges, 98155 - Product Owner

Personas	3
Backlog	3
Project	4
Architect Notebook	4
Software project management and comprehension tool	4
Web java-based application tool	4
Container	4
Database	4
Requisites:	4
MySQL	5
MongoDB	5
Cassandra	6
Twitter Bot	6
Defined Ideas	7
Software project management and comprehension tool	7
Web java-based application tool	7
Container	7
Database	7
Twitter Bot	7
Bibliography	7

Draft Notebook Ideas

Personas

Made three personas, each one with a case scenario and a user story associated: One persona was made for lazure utilization of the application (browsing and knowing what's happening around the world and which trends to follow), while the other two, for business purposes (management of trends and/or knowing what's trending with the intention of creating a new business).

Backlog

In software development, a product backlog is a prioritized list of deliverables (such as new features, bugfixes or hotfixes) that should be implemented as part of a project or product development.

It's usually a way for team members to organize themselves in a way that two members are doing the same thing or someone is doing something more than once.

This tool is also great to maintain an overview of how the project is going, since for every entry in the backlog we can assign points that should reflect the time/complexity of the work developed.

It's also great to include ideas in the backlog even if they don't get implemented. When thinking about backlogging we should think about it as a wishlist where everyone can review everyone's work in order to move forward with the product.

There are many tools to help us develop a backlog, for now we will be using the project tab in github alongside with repository branching to fix bugs or misconceptions, and to report issues developed by the team members.

Project

In the project Trend It we did the index, home, login and register page, in accordance with the user stories defined before.

The index page works as a welcome to the webpage, which will redirect to login.html for login purposes, or in case the user doesn't have an account, to the register.html. With the login/register made, it will show the home page which will be used to show both tweets and statistics.

Because it's still a prototype, it's still too early to know if we will add more/remove some.

Architect Notebook

Software project management and comprehension tool

Maven

Web java-based application tool

Java Spring boot

Java Spring

Spring Initializr

Spring Tools

Thymeleaf

Container

Docker

Database

Requisites:

- Database oriented to lines
- Very high performance
- High availability
- Horizontal scalability
- Easy filter of content

MySql

Characteristics	Positive or Negative aspects
Oriented to lines	Negative
Great understanding from the developers	Positive
Scale well if configured correctly	Positive/Negative
Vertical scalability	Negative
Very high availability	Positive

MongoDB

Characteristics	Positive or Negative aspects
Document database	Positive/Negative
Vertical and horizontal scalability and high availability (with sharding and replica sets)	Positive
Great for transactional, search, analytics	Positive
Performance limitations can happen due to inadequate or inappropriate indexing strategies, or as a consequence of poor schema design patterns	Negative
The developers have some experience and understanding of mongodb	Positive/Negative

Cassandra

Characteristics	Positive or Negative aspects
Oriented to column	Positive
distributed (Maybe overkill)	Positive
horizontal scalability	Positive
high performance and availability	Positive
developers of the group are less experienced with this tool	Negative

Twitter Bot

languages	Java	Python
Useful Sites	https://gist.github.com/duyfinster/2469810	https://realpython.com/twitter-bot-python-tweepy/
	https://medium.com/@SeloSlav/how-to-make-a-scary-russian-twitter-bot-with-java-b7b62768a3a3c	https://auth0.com/blog/how-to-make-a-twitter-bot-in-python-using-tweepy/

Defined Ideas

Software project management and comprehension tool

Maven

Web java-based application tool

Java Spring boot

Java Spring

Spring Initializr

Spring Tools

Thymeleaf

Container

Docker

Database

MongoDB

Twitter Bot

Java

Bibliography

https://www.w3schools.com/w3css/w3css_templates.asp

<https://www.mongodb.com/>

https://cassandra.apache.org/_/index.html

<https://www.mysql.com>

<https://www.perforce.com/resources/hns/agile-product-backlog-basics>