Introduction to Software Engineering

# First Iteration - Trend It

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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).

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# 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.

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# 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 |

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### 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/dueyfinster/2469810> | <https://realpython.com/twitter-bot-python-tweepy/> |
| <https://medium.com/@SeloSlav/how-to-make-a-scary-russian-twitter-bot-with-java-b7b62768a3ac> | <https://auth0.com/blog/how-to-make-a-twitter-bot-in-python-using-tweepy/> |

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# Defined Ideas

## Software project management and comprehension tool

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Java Spring boot

Java Spring

Spring Initializr

Spring Tools

Thymeleaf

## Container

Docker

## Database

MongoDB

## Twitter Bot

Java

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