

Project Pitch

Rock 'n Stone

Team

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Overview: The Github Miner

- Command Line application where you specify a GitHub repository
- Allows you to run various commands like switching branches/repositories, but mainly: viewing various statistics on the repository
- Target users: Developers looking to receive insights on a GitHub repository for various purposes, e.g. wanting to see how people are involved with development, what the most important files are, etc.

Goal is for the user to draw their own conclusions from the metrics, not make the decision for them

- Customisations from track:
 - Sorting features
 - Branch selector

Functional features

ID	Short name	Priority	Description	Champion
F1	Cloning	Must have	As a user, I want to be able to specify a repository, that the system will clone and calculate statistics on.	Joachim
F2	Commands	Must have	As a user, I want a simple and familiar interface that I can use to investigate the GitHub repository, like calculate various statistics or switch branches.	Marko
F3	Statistic	Must have	As a user, I want to have an overview of available statistics, and I want to be able to view specific statistics. When viewing a given statistic, I want to be able to sort the statistic, whenever relevant.	Zain
F4	Removal	Should have	As a user, I want to be able to remove any downloaded data, so I can keep my storage clean and empty. I also want to be able to switch repositories without having to relaunch the program, so that I can avoid the trouble of having to run the removal command and relaunch the application.	Ammar
F5	Switch branch	Should have	As a user, I want to be able to execute the other statistics in the context of a different Git branch, so that I can see these details across branches.	Ammar

Statistic calculating features

ID	Name	Arguments	Sorting options	Description	Champion
1	Most active contributors	None	# of commits, # of LOC changed	Displays a sorted ranking of contributors.	Joachim
2	Most active branches	None	# of commits, # of LOC changed	Displays a sorted ranking of branches.	Marko
3	Most active weekdays	None	# of commits, # of LOC changed	Displays a sorted ranking of weekdays.	Ammar
4B	Most popular issues (Bonus)	None	# of comments	Displays a ranking of issues, sorted by amount of comments.	Marko
5B	Pull requests(Bonus)	None	# of pull requests	Displays a ranking of contributors, sorted by amount of pull requests created.	Zain
6B	Most popular releases (Bonus)	None	# of reactions	Displays a ranking of releases, sorted by amount of reactions.	Joachim

Quality requirements

ID	Short name	Attribute	Description
QR1	Commands sanity checks	Reliability	As a user, I want to be able to make typo's without the application crashing or behaving unexpectedly.
QR2	Fault recovery	Reliability	As a user, I want the program to produce the most comprehensive and useful output it can, even when an error is encountered. In the event of an error, the application should also attempt to continue to function, and continue to allow me to perform other tasks.
QR3	Extensible deck	Maintainability	As a developer, I want to be able to implement new statistics following a modular and well-abstracted interface, without needing to modify other statistics or significantly modify other parts of the project.
QR4	Swift results	responsiveness	As a user and developer, I want to be aware of whether the program is still running and making progress, so that I can estimate how much longer the operation may take, and I can be aware of the operation being stuck, in order to use the application efficiently.
QR5	Gradable executables	Portability & Compatibility	As a user I want to be able to run a stable and functional build on Linux, MacOS and Windows because I have multiple computers.
QR6	Warning lines	Security	As a user, I want to be notified of any potential security concerns while using the system. For example, cloning a repo is not without risk, as a folder is being downloaded to the user's storage device.

Time log

Link to time log sheet:

<https://docs.google.com/spreadsheets/d/1eIHycs2gljRIZh0U-i5gef7cc0MEg-dnicOxgldsOs4/edit#gid=0>

Signed contract

Link to team contract:

https://docs.google.com/document/d/1OEtQ4DqmPR_q7asnHpdcscNMxFSFFdnvz8iRVpavDy4/view