RUP Artifacts

for

Web-site connectivity checker

Prepared by Evgeniy Lutanin, Karina Singatullina

10.10.2021

Version History

Editor's Name	Date (DD/MM/YYYY)	Reason for Changes/Sections Updated	Version
Evgeniy Lutanin, Karina Singatullina	25.08.2021	Filling the tables with content: Business Goals and Objectives, Roles and responsibilities	1
Evgeniy Lutanin, Karina Singatullina	06.09.2021	Filling the tables with content: Requirement Analysis and Specifications Software Development plan Added: Non-functional requirements Glossary Dynamic process diagram	2
Evgeniy Lutanin, Karina Singatullin	25.09.2021	Sequential UML diagram added UML class diagram added Table 2 updated	3
Evgeniy Lutanin, Karina Singatullin	10.10.2021	Redundant sections are deleted Roles&Responsobilities is updated	4

1. Business Goals and Objectives

A website connection checker is a command application that provides to users information about web-sites connectivity - whether the site is available now. It is needed when a user finds some important site crashed: the app will ping that site using ICMP messages once per some interval of a time and when the site will be available the app will notify the user.

1. **Site connectivity information providing:** the main goal for us is to inform users about the connection status of sites that are needed at that point in time.
2. **Increasing user time efficiency:** if users do not need to go to the site and update the page again and again they have more time to do something else important.
3. **Network overload prevention:** pinging the site every minute by ICMP messages does not overload the network as much as a user who visits the site and updates the page many times.

2. Roles and responsibilities

Stakeholder's Name	Roles	Responsibilities
Evgeniy Lutanin	Backend developer, tester	Project idea generation, selection of technical tools, code architecture building, code implementation, QA
Karina Singatullina	Project manager, tester	Project idea generation, working process management, code architecture building assisting, a project presentation, QA
Swati Megha Alexander Tsupko Moofiy Imam Yegor Bugaenko	Customer :)	Project validation

3. Requirement Analysis and Specifications

3.1 Features: functional requirements

ID #	User Story Title	Priority	Any Other Label
1	Pinger	Must	Core, well-known
3	Site links storage	Must	Core, well-known
4	Interface	Must	Peripheral, to study
5	Notifications	Must	Peripheral, to study

3.2 User Stories

User Type	User Story Title	User stories
App User	Pinger	1. As a user I should have a checker which will ping the needed sites from storage by ICMP messages for every minute.
	Site links storage	2. As a user I can add links to sites which I need to check. 3. As a user I can see storage with all the sites I added. 4. As a user I can delete any link from the storage. 5. As a user I can choose any site(s) from the storage to start pinging.
	Interface	6. As a user I have an interface to interact with the pinger and storage. 7. As a user I can easily download, install and delete the application.
	Notifications	8. As a user I get notifications when the site I chose is available. 9. As a user I can go to the site through the link in a notification.

3.3 Non-functional requirements

#	Titles	How to meet
1	Speed	Good code style, optimized algorithms, sending pings after every short time interval. Implementation of the main functionality only to avoid time-consuming, fast protocols usage.
2	Security	Working without registration - no need for user's personal data. All the site links will be kept in local data storage.
3	Reliability	The project will work locally as a command-line application, so it does not depend on any website or service capacity/performance/connection.
4	Extensibility	As we will implement only the main functionality then the source code will not be large and bad, it will be possible to easily add new features or to collaborate with another project in the future.
5	Low-resource	Simple command-line design, simple but effective functionality allow the application to not spend a lot of memory and energy.

4. Software Development plan

Inception Phase				
#Iteration	**Timeline**	**Stakeholders**	**Activities**	**Artifacts**
#1	24/08/2021 - 27/08/2021	Karina Singatullina, Evgeniy Lutanin	Determine Business goals and objectives with valid justification Identify the stakeholders Establish roles and responsibilities	Deliver the documentation of achieved milestones
#2	28/08/2021 - 31/08/2021	Karina Singatullina, Evgeniy Lutanin	Requirement engineering (20% user stories)	Update the documentation of achieved milestones with User stories

Elaboration Phase				
#Iteration	**Timeline**	**Stakeholders**	**Activities**	**Artifacts**
#1	01/09/2021 - 03/09/2021	Karina Singatullina, Evgeniy Lutanin	Revise User Stories (100%)	Document 100% user stories
#2	04/09/2021 - 25/08/2021	Karina Singatullina, Evgeniy Lutanin	Software development planning	Iteration Plan
#3	06/09/2021	Karina Singatullina, Evgeniy Lutanin	Software Architecture Test Plan	Software architecture diagram Test Plan Document

Construction Phase				
#Iteration	**Timeline**	**Stakeholders**	**Activities**	**Artifacts**
#1	07/09/2021 - 09/09/2021	Karina Singatullina, Evgeniy Lutanin	Implement Feature 1 Unit test cases for feature 1	Working feature 1 branch Unit test results
#2	10/09/2021 - 12/09/2021	Karina Singatullina, Evgeniy Lutanin	Implement Feature 2 Unit test cases for feature 2	Working feature 2 branch Unit test results
#3	13/09/2021 - 18/09/2021	Karina Singatullina, Evgeniy Lutanin	Implement Feature 3 Unit test cases for feature 3	Working feature 3 branch Unit test results
#4	19/09/2021 - 24/09/2021	Karina Singatullina, Evgeniy Lutanin	Implement Feature 4 Unit test cases for feature 4	Working feature 4 branch Unit test results
#5	25/09/2021 - 30/09/2021	Karina Singatullina, Evgeniy Lutanin	Implement Feature 5 Unit test cases for feature 5	Working feature 5 branch Unit test results

Transition Phase				
#Iteration	**Timeline**	**Stakeholders**	**Activities**	**Artifacts**
#1	01/10/2021 - 05/10/2021	Karina Singatullina, Evgeniy Lutanin	Integration, End to end testing Training for Users and Developers	Github repository Merged branches Integration and ended to end test results Final README for developers and Users
#2	06/10/2021	Karina Singatullina, Evgeniy Lutanin	Final product release	Working Product

Git repository with a working prototype and readme file: Site connectivity checker