Group Project Documentation

Project Information

Faculty of Electronics, Telecommunications and Informatics

Gdansk University of Technology

{model document version: version 2/2023}

Project name and acronym:	Principal:	
{name of the project, e.g.: Port security system against terrorist threats - SZP} **Redundant coding visualization app**	*{customer name}* *Bartosz Czaplewski, PhD*	
Order number:	**Project manager:**	**Opiekun project:**
{number of the project team within the Group Project according to the SPG system, e.g. 13@KSSR'2022} 5@KSTI'2023/24	*{project team leader}* **Bartosz Kołakowski**	*{opiekun projektu }* **Bartosz Czaplewski, PhD**

Document Name/Acronym:	Version No.:
Project Information – IoP	*{document version e.g. 1.00}* **2.00**
Responsible for the document: *{surname, first name}* **Kołakowski Bartosz**	**Date of first drafting:** *{date of first version of the document}* **04.01.2024**
	Last updated date: *{date of execution of the current version of the document}* **04.01.2024**
	Bachelor's degree studies, engineering
	Semester of Group Project: 1 *{do not change}*

Revision history

Version	Description of the modification	Chapter / page	Author of the modification	Date
1.00	*{description, e.g. draft version}* Draft version	*{e.g. whole}* Whole	*{surname, first name}* Jastrzębski Paweł	*{date modified}* 04.01.2023
2.00	*{description, e.g. draft version}* *Adding risk factors to point 4*	*{e.g. whole}* *4*	*{surname, first name}* *Bartosz Kołakowski*	*{date modified}* *04.01.2023*
{version}	*{description, e.g. adding stage C}*	*{e.g. points 2, 2.3}*	*{surname, first name}*	*{date modified}*

Table of contents

1   Introduction - About the document

1.1   Full Document
{do not change }
　　　The purpose of the document is to organize basic information about the project, contractors, topic, project scope, pre-planned scope of work, quality management and to perform a simplified risk analysis.

1.2   Customer
{specification of the addressees of the document, it can be the type of recipient; here: the contractor (Department), members of the project team and named persons to whom the document is to reach}
The contractor and the client (Bartosz Czaplewski, PhD, Eng.) and members of the project team; Bartosz Kołakowski, Michał Mróz, Paweł Jastrzębski, Maksym Nowak, Piotr Noga

1.3   Terminology
{explanation of terms and abbreviations used in the document, designations used inside the document, e.g. requirements designations}

2   Purpose and assumptions of the project
{scope of the project, main assumptions, main requirements, product components, pre-planned scope of work, other at the discretion of the supervisor)

2.1   Project objective

The aim of the project is to write a tool to support the teaching process. The tool is to be an application that visualizes issues related to redundant coding
.

2.2   Project assumptions

The application is to vividly present the classification of redundant codes, the process of encoding and decoding selected redundant codes, the gain of coding, various issues related to the topic, and allow you to conduct experiments. The application must have an aesthetically pleasing graphical user interface and must be run on MS Windows

3   Project organization

3.1   Project Team
{at this point, fill in a table specifying the roles of each person in the implementation of the project and provide the contact e-mail address of each person}

Table 3.1. Project team members

Lp.	Team member's name	Project Role	Contact Email
1	Bartosz Kołakowski	Manager, tester	s188701@student.pg.edu.pl
2	Paweł Jastrzębski	Backend/implementation	s188657@student.pg.edu.pl
3	Michał Mróz	Frontend/visualization	s188708@student.pg.edu.pl
4	Piotr Noga	Frontend/visualization	s188839@student.pg.edu.pl
5	Maksym Nowak	Tester	s188751@student.pg.edu.pl

3.2   Project supervision

Table 3.2. Project supervisors

Name of the cathedral	Enter the name of the department where the project is carried out	
Guardian	Enter the name of the project supervisor Bartosz Czaplewski, PhD	email: bartosz.czaplewski@pg.edu.pl
Customer (the person representing the customer)	Enter the customer's name Bartosz Czaplewski, PhD	email: bartosz.czaplewski@pg.edu.pl
Chair Coordinator	Enter the name and surname of the department coordinator (to be agreed with the supervisor)	email:
Faculty Coordinator	Sławomir Gajewski, PhD	E-mail: slawomir.gajewski@eti.pg.edu.pl

3.3   Communication infrastructure

{at this point, the organizational aspects of the project implementation should be planned; this means that the project team, in consultation with its supervisor, should determine and write down the planned forms and dates of consultations on three levels:

- *a)   Meetings between students and the project supervisor – students with the supervisor should plan and describe the methods and forms of cooperation along with the initial schedule of meetings. In this section, it should also be described how the supervisor will receive information about the progress of the project*

- *b)   team-to-client collaboration – students should describe how they plan to work with the client (especially if it's an external client)*

- *c)   meetings between students - students should determine and describe how they will communicate with each other, how they will organize the transfer of fragments of projects (e.g. developed software), who will coordinate the work, how information about possible problems will be communicated, what will be the procedure for creating and verifying documentation, versioning, who will be responsible for communication with the supervisor and the project client, How will project archiving be organized}*

- *a)   The progress of the project will be presented during the guardian's consultations – on Wednesdays at 11 a.m. We will come to the meetings about 1 time a month and present what we have done there. Preliminary schedule – 19.10.23, 15.11.23, 13.12.23, 10.01.24. In addition, if you have any other questions, we will contact the supervisor by e-mail, and the supervisor can also send us information on e-learning*

- *b)   The Supervisor is also a client – described in subsection a)*

- *c)   Students will communicate in a group on Messenger. All relevant information for the project will be sent there, e.g. dividing tasks, requesting code review. The project is stored in a repository on GitHub, which takes care of both uploading project fragments and archiving the project. Coordination of work and communication with the supervisor and the client is handled by project manager Bartosz Kołakowski*

3.4   Project quality management

{In this section, the methods of quality management in the project should be described, i.e. there should be a description of the methods of verifying the correctness of the completed parts of the project, the method of documentation control (i.e. checking the document by a person other than the author before sending it to the design website), the method of controlling the work performed by individual persons, ongoing cooperation with the client and verification of meeting expectations, etc.}

Verification of the correctness of the coding implementation is performed by means of automated tests using sample input data. In the event of an error, it is reported at program startup, so you can immediately see if the improvement is causing a new problem. In addition, the main branch on GitHub is protected and you can only make changes through a Pull Request that has passed the code review of at least 1 other team member. In code review, the reviewer launches a new version of the program and verifies its operation, as well as reviews the code to find bugs.

Documentation is either written by several people or checked by a minimum of 1 person other than the author before sending to spg.

You can see the work done by individual people on GitHub – whether a given person has created a branch and pushed the new code, and through communication on Messenger.

Cooperation with the client and verification of meeting expectations takes place during meetings with the client.

4   Risk analysis and project risk management

{In this section, describe how risk management will be carried out in the project. That is, you should think about and describe what the potential risks are, e.g. a project team member's trip to the Erasmus program, the appearance of a competitive solution on the market, problems with communication with the client, delays in purchases, etc. And then try to describe how to counteract it and how to deal with it in the event of a risk. This can be done in the form of a table; The table gives an example.

Risk factors are identified on the basis of questionnaires or lists of risks. Usually, the identification of risk factors is based on intuition. Identify the risk factors that seem most important to you. The risk description should be provided using the template below.

A risk management strategy should be prepared for the identified factors. Possible management methods:

avoidance – we do not undertake the project;

minimizing/preventing - influencing risk triggers;

minimization of effects – influencing the reduction of the consequences of risk occurrence;

Risk delegation – e.g. insurance, shifting responsibility to the customer, etc.;

contingency plans – plans in case of risk materialization;

tracking – it can be assumed that one of the risks is only tracked if the preparation of contingency plans is, for example, too laborious;

Ignoring – in order to adopt the strategy of ignoring, we must be almost sure that a given phenomenon will not materialize, because the probability of its occurrence is very small.

Please note that the risk management strategy you choose may be different for each risk. However, each strategy should have its justification.

To get the job done right, you need to consider what risks are associated with the group project topic you have chosen.}

Table 4.1. Project team members

Lp.	Risk name	Assessment of probabilities. Instance	Description of potential impacts	Troubleshooting
1.	Team member departure	50%	One link is missing in the design. No access to the documentation/software created by this person.	The work of the team should be reorganized. Due to this risk, it is necessary to ensure that the completed parts of the project are properly archived in a place accessible to all team members and that the generated project documentation is stored in an editable form in a fixed place.
2.	Serious illness of a team member	3%	One link is missing in the design. Inability to perform tasks in which the person was the only one who had sufficient knowledge how to perform them. An increase in the amount of work per member by the fact that the other members will have to perform the tasks entrusted to this person.	The work of the team should be reorganized. Due to this risk, it will be necessary to plan the work in such a way that each person familiarizes others with the tasks they do and explains to them how they work, so that there are no irreplaceable people. Handing over the easiest jobs to the sick person if their health allows it.
3	Death of a team member	0,1%	One link is missing in the design. A complete inability to perform tasks by this person, a very big problem if only this person was able to perform a given task. A significant increase in the amount of work per person. Others doing harder work due to the psychological effects of a team member's death.	The work of the team should be reorganized. Due to the permanent absence of one person in the project, it will be possible to agree with the project coordinator to add a new person to the team, change the requirements or the deadline for submitting the project. Talk to other members and support each other to prevent the psychological effects of the death of a member of the band.
4	An argument in the team	10%	Delaying the completion of tasks by focusing on disputes instead of work. The work is less comfortable because the members are at odds with each other and hold grudges. Possible departure of members from the band due to an argument.	Organizing frequent discussions where issues related to the project are discussed in a cultural and balanced way. Listening to each person's opinion. Instead of choosing extreme options, compromise. Taking advice from an authority. Putting the good of the group before one's own ego.
5	Communication problems	20%	Delay in completing tasks by not coordinating or dividing them. Unnecessary duplication of work, because two people can do the same thing. Technological conflicts, as the participants did not agree on compatible technologies among themselves.	Regular meetings in the real world, not through instant messaging. Agreeing on one messenger so that everyone uses one, but one that suits all members. Checking with others before doing an important task.
6.	Little time to complete the project due to learning	70%	Delay in the implementation of the project, because the time for the project must be spent on learning. Reducing the motivation and strength of team members.	Wise planning of work on the project. Not leaving it for the last minute. Increasing work on the project at the beginning of the semester, when there are not many credits yet.

7.	*Lack of willingness to do the work by a team member*	*60%*	*Delay in project execution* *Decrease in the motivation and desire of other members.* *Arguments in the team*	*Members motivate each other.* *Individual sense of responsibility for the project.* *Setting an action plan.* *Celebrating successes.*
8.	*Team member incorrectly completing a task*	*70%*	*Delay in project execution* *Decrease in motivation* *Upset and sadness*	*Frequent Questions Asked by Others* *Asking questions to make sure others know what to do*