



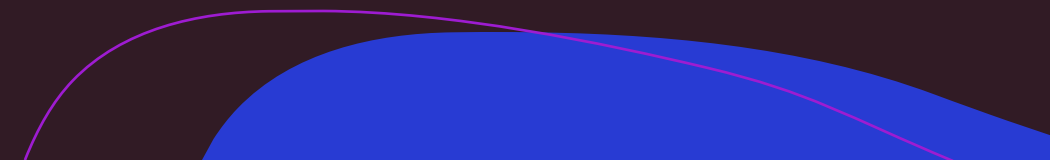
# 404's Questionnaire

A simple application brought to you by the members of 404.



# 1) Introduction

Our group has created an application, based on the model of a questionnaire. It is created to target children between the ages of 6-12. Since this age group is very easy to influence, this questionnaire will draw them towards programming out of curiosity, as well as being a reality check on their knowledge.



# Objectives of the application:

01

1) Drawing  
students towards  
programming

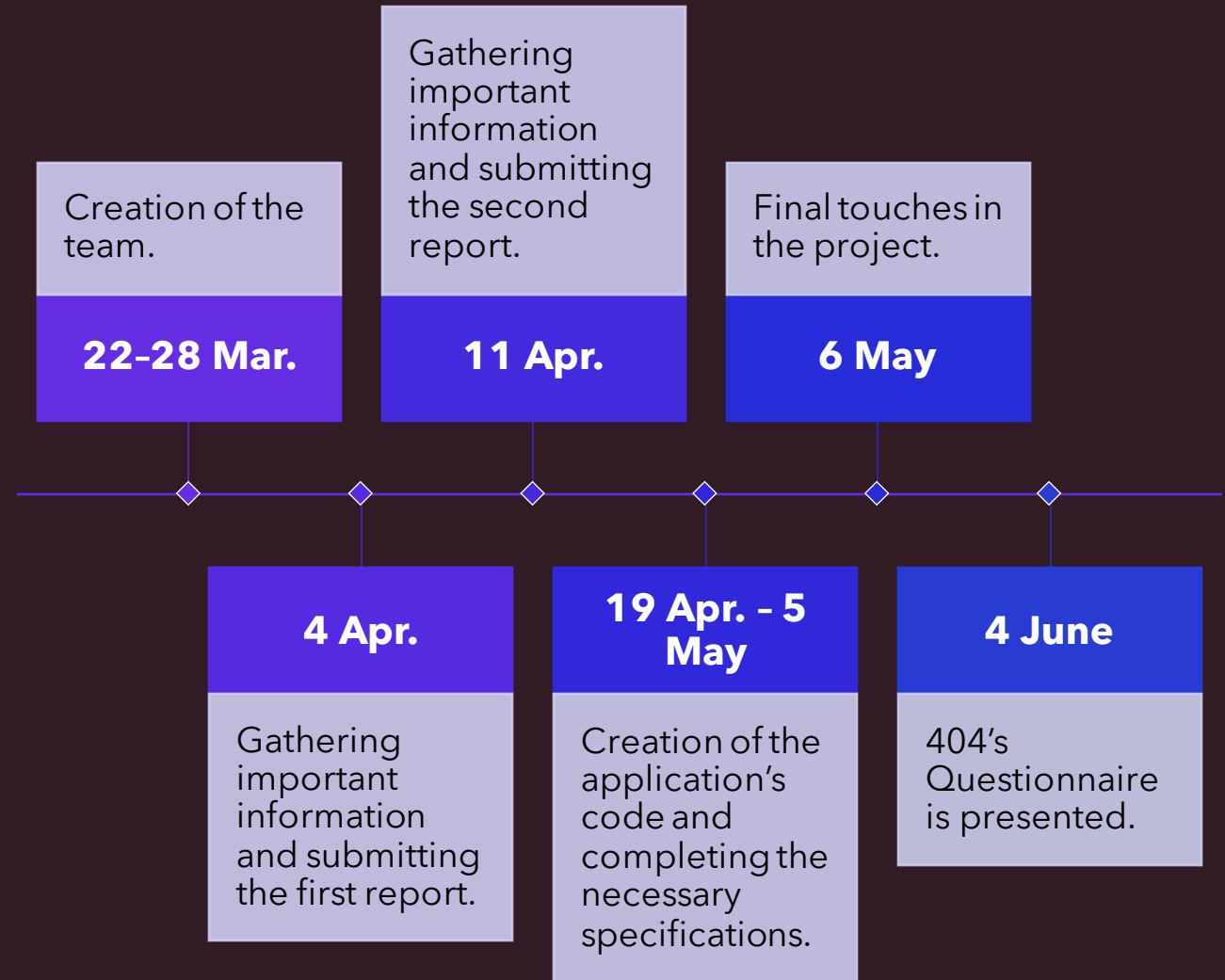
02

2) Assessing the  
general  
knowledge of the  
students

03

3) Creating a  
general idea of  
the outcome of  
today's teaching  
manners.

## 2) Project timeline:



### 3) Some background information:

The team held meetings with teachers and students in elementary schools, both in person and online. These meetings consisted of conversations between: a) the team members and the teachers about some general information such as: the subjects being taught for each grade, the general knowledge level of the students in their classes, the teaching methods and what they would like to improve about the topics mentioned above ; b) the team members and the students about some general information such as: the subjects being taught for each grade, the quality of the textbooks and information presented to them during school hours, what they would like to improve when it comes to the learning process (if they would interest in learning new information not made available in school and be tested for it).

## 4) Factors that affected this product:

Communication between the team and the teachers interviewed.

Communication between the team and the students interviewed.

The preferences of the students about the application (different preferences about the questions involved in the quiz).

The preferences of the teachers about the application (different preferences about the questions involved in the quiz).

The functions that were desired to be included in the application.

## 5) Assumptions made about the product:

### Resources:

The team will be available for holding meetings at all necessary times.

The team will be available to partake in the creation of the application at all necessary times.

All facilities will be available when needed.

End users will be available to test during the time they agree to.

### Delivery:

The application will be delivered on time.

### Budget – estimated cost of the project:

Project costs will stay the same as initially budgeted cost (no expenses or small amount of expenses).

### Scope:

The project scope will not change.

### Schedule:

Materials will arrive as planned within the project schedule.

### Methodology:

Project will follow the parallel process flow type.

Project will follow the unified process model.

### Technology:

The team will write the solution in Python.

The solution will use the existing test environment.

## 6) Constraints:

● **Technology limitations** : The IDE used, access of the needed amount of devices such as computers, mobile phones, iPads etc.

● **Scheduling limitations**: Planned meetings and their scheduled times need to be favorable for all the included members.

● **Adaptability limitations**: Members of the team have to be able to compromise and make changes to their personal schedules when needed.

● **Construction and design limitations**: A good understanding of the programming language used and well-defined knowledge of its libraries, functions and features it provides.

● **Delivery limitations**: The application needs to be delivered in the appointed time.

● **Testing limitations**: The scheme/method used for testing the application needs to be efficient.



## 7) Dependencies:

- This new product presents the need to download distinct features on the IDE such as specific libraries and extensions to be executed.
- This new product presents the need to have access to all kinds of technological devices.
- This new product presents the need to have access to all needed resources mentioned above.

## 8) A general look on some of the requirements of the product:

The system should be evaluated against the performance criteria.

The parts of the system that perform poorly under what conditions should be discovered.

Platforms with the same software should be compared with each other to see which one performs better.

The program should be easy, importable and applicable to use by everyone, without any difference with regards to their location.

Error tolerance levels should be zero for the application to work correctly.

Icons/buttons/other user interface elements should not be abstract (too complicated to be understood by a normal user) and meaningless.

User engagement (typically 1<sup>st</sup> to 5<sup>th</sup> graders) should be given a great amount of priority, since the app focus is about this age group.

## 9)GUI

The main page:



WELCOME USER!  
SELECT DIFFICULTY LEVEL!

☒ Grade 1

☐ Grade 2

☐ Grade 3

☐ Grade 4

☐ Grade 5

Next





Q3. Which month of the year has the least number of days?

- ☐ February
- ☐ March
- ☐ October
- ☐ June

Next

Quit






**Q10. Jack has some postcards. Then he got 3 more on a road trip.  
Now he has 6 postcards.  
How many postcards did Jack have in the beginning**


☐ 5

☐ 3

☒ 6

☐ 2

 Result ×



Score: 20%  
Correct: 2  
Wrong: 8

OK

**Next**

**Quit**

## 10)References:

- <https://www.dataquest.io/blog/learn-python-the-right-way/>
- [https://cfm.ehu.es/ricardo/docs/python/Learning\\_Python.pdf](https://cfm.ehu.es/ricardo/docs/python/Learning_Python.pdf)
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- <https://www.altexsoft.com/blog/business/technical-documentation-in-software-development-types-best-practices-and-tools/>



THANK YOU FOR  
YOUR TIME!

Any questions?