Project Report

Group Nii

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# 1. Introduction

## 1i. The Problem

As technology use within both industry and society grows, it inspires the next generation to wish to develop the very technologies that their lives utilise. As such, a new problem has arisen- Teaching these individuals the necessary skillsets that they will need to be able to follow these dreams, preparing them for the world of industry and the mind-set they will need in order to work as a developer. As current generation developers, it is important that we provide tools and platforms for the next to utilise and learn from, so that they can work to the best of their abilities and strive forward.

## 1ii. Aim

As a result of this need for tools and platforms, we aim to design and create a tool that a young individual of age range 10 to 14 could utilise in order to teach themselves the basic concepts of programming. This will provide them with the foundations that they need to begin their journey as a young developer. This tool will take the form of some kind of teaching application, providing clear goals and objectives that the young individual can work towards and track their progress in learning. We also wish for this solution to be engaging and interesting, in order to fuel the budding developer’s passion, rather than allowing it to burn out.

In order to track our progress towards this aim, we have created a number of objectives for our solution that must be followed in order for us to deem our project a success. These are as follows:

## 1iii. Objectives

Our solution must do the following:

1. Teach the user a number of basic programming concepts, such as program flow, branching statements, loops and functions.
2. Engage the user with these topics, leaving them with the desire to continue using the solution and learn more.
3. Track the user’s progress, allowing for them to get a measure of how much they have learned from their time using our application.
4. Challenge the user on what they have learned, teaching them to not only follow instructions but use the tools that they have learned in their own way to tackle problems.
5. Break down the topics in a simple enough manner that an individual of young age could understand, while also respecting the intelligence of the user.
6. Differ from currently available tools, providing a unique experience that will draw users to our solution over others.

If all of the above objectives are completed, we can step forward from the project and state that it was successful. However, a failure in any of these objectives can demonstrate what we can work on and improve within our solution.

# 2. Survey of Existing Solutions

## 2i. What is Currently Available

The first step to any project is to see what has already been done to tackle the issue at hand, so that we can learn from what has been attempted and see if there are new avenues that could be approached and attempted.

# 3. New Ideas

# 4. Design and Development

# 5. Evaluation of Product

# 6. Conclusion

# 7. Issues

This section is for the Professional, social, ethical and legal issues for the project by using the British Computer Society code of practice guide.

## 7i. Professional

When making the project to ensure that professionalism is kept at high standard, it will be ensured that the knowledge of all the group members in their specialist area will be kept to the highest level, by making sure that every group member has learnt and are able to execute properly their given tasks. This will be done by everyone being in their area of strengths and group coming together in meetings and consolidating each other’s completed tasks by giving opinions and ideas for improvements.(The British Computer Society Code of Good Practice, Sep 2004, p. 7)

As the project is mobile app for teaching how to do programming, the contents being taught will checked thoroughly to makes sure everything is accurate and wrong information is not taught to the user of the app. Additionally, the contents being taught will be made sure that they are up to date so that users get the most effective use of the product and better customer satisfaction.(The British Computer Society Code of Good Practice, Sep 2004, p. 7)

When programming, the code will be structured and following programming guidelines appropriately. This will be very beneficial as this will make it easier when it comes to testing, maintenance, and programming with colleagues. Also when problems occur when programming, research is done and will look for common solutions, additionally when problems re-occur the ways to eliminate is investigated through systems changes or by additional research.(The British Computer Society Code of Good Practice, Sep 2004, p. 24)

## 7ii. Social

When developing and designing the product, it will be ensured that it is appealing and giving what is promised to the target audience. The customer will also be given clear instructions to how to use the mobile app and how to use it effectively to get the best results while learning how to code. The app is for teenagers who are beginners and are interested in learning to program and it will be made sure that the app helps the target audience to understand step by step and that they have the necessary skills. Research will be done to see what the competitors offer and after as a team produce more efficient solutions.(The British Computer Society Code of Good Practice, Sep 2004, p. 13)

## 7iii. Ethical

The main ethical issues that comes with making the for mobile app programming is there is always going to be some mental stress that comes with learning how to do programming. The aim of the mobile app game is to ensure that the user is having fun and minimising stress while learning how to code. This will be done by giving the player rewards for completing tasks and giving the atmosphere of a game to the user. Furthermore, research will be done to see that if there is any complaint for the user while using the product and causing any sort of discomfort.(The British Computer Society Code of Good Practice, Sep 2004, p. 14)

## 7iv. Legal

The legal issues that need to be considered for the project are data protection, copyright, health and safety and discrimination. The data from the user will not be misused in any sort of way and it used fairly and lawfully. While making the product all the code and medias will be will be implemented by the group and making sure that plagiarism is does not happen. Also while working in it will made sure that everyone follows the health and safety act by giving each other equal amount of tasks, that none of the members are overworked and are fit to do their given tasks. The product will comply all the non-discrimination legalisation and to do this the product will be made to be generalised to everyone at the same time focusing on the target audience as well. (The British Computer Society Code of Good Practice, Sep 2004, p. 6,16)

# A. References:

Below is a list of references of all information sources utilised and referred to in the report:

# B. Appendices

## Appendix A – Insert Name of Appendix Here