Nottingham Trent University

School of Science and Technology

Quiz Mania

by

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Project report in part fulfilment

of the requirements for the degree of

Bachelor of Science with Honours

in

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Abstract

Keeping one’s knowledge up to date is becoming more of a challenge as each day passes by. There is a need to have a system where one can test one self’s knowledge and have a chance to learn new things. Keeping them up to date in their field of interest while enjoying the thrill of competition; is primary aim of this project. As people no longer frequent to libraries or any other sources of knowledge, it’ll be effective to incorporate such sources in devices that have become the primary use: smart phones, through a mobile application.

Acknowledgements

Enter acknowledgements here. It is usual to acknowledge those that have assisted you in your work and will normally include your main project supervisor. The order of acknowledgments (most important first) and their respective length indicates their relative importance to you.

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Introduction

Introduction

As the technology grows to facilitate human life, humans have equally dried up their reservoirs of time, in this endless game of chase where technology tries to save time, and humans find ways to use it up even more, the quality of one’s knowledge has gone down. Lesser and lesser people have been visiting the libraries, or acquiring knowledge in any other form.

This creates a paradox of having the need of updated knowledge to make life better, and not having enough time to acquire extra knowledge because time is being consumed in struggle for having a better life. Thus, a need arises to resolve this dilemma, which is what we aim to achieve through this project.

This report includes a literature review about the approaches taken to address this problem in the past; talking about their methods and effectiveness and whether any of the methods can be incorporated in our project.

A new method may be proposed to address the problem, resulting from a new perspective or expanding on or renovating an existing method. Requirements for the application and design will be discussed and a development plan will be laid out.

The document will share results of the project undertaken, and analyse it to find areas of improvement and summarize the findings in a brief conclusion.



CONTEXT

Literature Review

“In the last decade, a university classroom has evolved into an active learning and more student centred environment, in which student learns through proactive work, rather than passive receptor. Gamification is one of the most commonly used active learning strategies.”

Conveyance of knowledge through game dynamics has emerged as a popular field in education systems. Much work has been done in field and it is still a young field to be explored.

The expert system, as proposed by John Byers, is one of the earliest and most basic quiz applications developed for browsers. It used HTML and JS to implement a multiple choice based quiz on multiple topics.

Another such application has been worked on by a group of students in 2015. The application was created for Android but it only caters to students; giving admission tests or tests for civil jobs. While their concept is similar to ours, it’s very constrained. Our project is to create an application that covers wider area of topics, updated knowledge and to use better technologies to get better performance.

Online application market is overwhelmed by trivia games, with only a few games that truly can be marked as quiz games and follow the Gamification theory. While there is no way evaluating such a large number of applications, there are some applications that standout:

* Kahoot
* Quiz Up
* Quizoid

Kahoot is a web based application to design quizzes meant for classrooms. It is an interactive and fun experience for partaking students. QuizUp and Quizoid are Android applications. While QuizUp is an online application, Quizoid remains an offline game. QuizUp has many topics to choose from and the game design is to pitch the player against another player, creating the reward-penalty paradigm.

These Android applications are however designed to be more fun, than informative; the questions are basic and out-dated and do not serve a purpose in keeping one’s knowledge up to date. There is a need to create an application that has questions from updated knowledge resources, is fun and has the thrill of competition.

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Figure : Microsoft XP

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Table : Microsoft Office.

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New Ideas

Introduction

As a result of your 'Context' chapter you should have narrowed down your area of research. This 'focussing' of attention on one aspect of the field will have been aided by reading about other peoples' work in the field. You may be proposing a development of one of their ideas or perhaps an idea that came to you that differs from anything tried before.

For a software development you might include an explicit list of the requirements, a description of investigation of requirements ( if appropriate), and a discussion of how requirements relate to Background research.

For a research-based investigation you might include the planning for the process (methodology) to be adopted, the criteria to be used for evaluation, and a discussion of reasons for this process and comparison with alternatives.

The proposed development or investigation must be realistic bearing in mind the entire project is supposed to take 400 hours of your time. Thus, evidence of project planning must be included in this chapter; estimates of work load for the various phases, setting these in context with other estimated workloads (e.g. course work and revision) and other deadlines. This should allow you to establish your project timetable (perhaps in the form of a Gantt chart) showing the interaction of these various factors and the set objectives/milestones. In your planning you should include contingency planning to allow for the unexpected disaster. Various project planning tools are covered in the course to allow you to do this.



IMPLEMENTATION or INVESTIGATION

Introduction

Here you give details of the development or investigation of the new material proposed in 'New Ideas'. This must be done in a business-like manner. The development of any software must follow a suitable analysis and design methodology. There are CASE tools available to you for some methodologies, others will have to be a 'paper' design. An investigation must also follow a suitable methodology and use appropriate techniques and tools.

Software-based projects, requiring the production of a software solution for a set of requirements, should demonstrate that the software development has undergone appropriate analysis, design, project management, structured programming and testing. Research-based projects, requiring an investigation of a research question or client’s requirements, or being used to test a hypothesis, should demonstrate that the investigation has been properly conducted, is based on scientific principles and uses appropriate tools, techniques and standards. An investigation must produce a technical outcome from some development (software or hardware (e.g. networks, displays)) or testing (e.g. of system/network performance, system security, HCI/usability analysis). Sometimes a software prototype or a testing framework will be produced for the evaluation or testing of the research or hypothesis. Work based purely on literature review is not acceptable.

Some projects aim to provide software for general use as their final product and these must include relevant aspects of HCI (Human Computer Interaction) and address such features of usability such as 'user friendliness' and most likely employ GUI (graphical user interface) standards such as Windows.

In any case, students often ask what should go in this chapter, how to describe what they have done, what is relevant, how much of existing work to include, what to include from what they have done, etc. The simplest and surest way is to refer to your diary of the work you have done and report on it in chronological order.

The complete requirements analysis, problem analysis & design of software must be done rigorously and included in full in an appendix. Avoid cross-referencing it too often, thus causing the reader to keep flicking pages back and forth, rather reproduce sections that you wish to draw the reader's attention to. That is, highlight the parts that you found particularly difficult to implement and feel rather proud of having solved. Do not include lengthy descriptions of standard techniques or methodologies, simply state that 'such-and-such was designed using such-and-such technique (give a reference, not just 'SSADM' but 'SSADM [James 1996]' where the reference is a standard text on the technique!)' and highlight where you found shortcomings in the technique that didn't quite cope with your particular problem. Highlight exceptions to the standard.



RESULTS / DISCUSSION

Introduction

The technique developed in your project is supposed to show improvement on techniques previously available. Therefore it may be necessary to spend time investigating whether this is true. Perhaps you need to set up some sort of quantitative test and do a little statistical analysis to confirm the improvement. This chapter will provide evidence, from the tests that you carry out, of the outcomes of your project.

Explain the success and limitations of your work and show how this relates to the aims and objectives set out in the introduction.



CONCLUSIONS / FUTURE WORK

## Conclusions

Whatever it was that your results showed should be summarised here. Your project or may or may not have achieved all that you set out to at the start.

This is your opportunity to conclude whether the project was a ‘success’ and how it might have been tackled differently in hindsight.

## Future work

In either case there should be some reference to future work, either to forward and expand on the successful outcome or to test ways of overcoming the shortfall in your ideas that didn't work out quite as expected but there should be something that shows you can see further implications of what you have achieved.

## Legal, Social, Ethical and Professional Issues

This section should include a discussion of the four LESPIs and the way in which you project has/will/could impact on each.

## Synoptic Reflections

This section will comprise of a reflection on the project in relation to employment aspirations and the skills that you have developed towards this through engagement with the project.

ReferenceS

Vogt, C. 1999. Creating Long Documents using Microsoft Word. Published on the Web at the Nottingham Trent University.

**Note:** References are a list that includes the essential bibliographical details for each item to which you have referred in the body of your paper. It should ONLY include items to which you have made direct reference. A direct reference is where you have quoted/reproduced text or diagrams from another author or mentioned/referred to the work of another author in your report. That is quoted directly what they have said about something or mentioned their views or conclusions in your report. For details of citation and references see the information in the Project Guide.

A Bibliography is a list of published materials that you have read or consulted for general information in the preparation of your work, concerning the subject of your Project, but have not made any direct reference to in your report i.e. 'background reading'.

You should always provide a Reference List. **A Bibliography is optional but when provided it should include all items in your Reference List as well as any additional items consulted in preparation of your work.**

Bibliography

Vogt, C. 1999. Creating Long Documents using Microsoft Word. Published on the Web at the Nottingham Trent University.

Coote, H., Dobbs, B. & Jones, C. (1996). Defining databases. Wiley: Melbourne.

Applications and Science in Soft Computing, Lotfi, Ahmad; Garibaldi, Jonathon M. (Eds.) 2004, X, 346 p. Springer, ISBN: 3-540-40856-8

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Appendix A

The content of these will differ with the different types of project. Any design and analysis charts/diagrams will be included here in full. In projects where software has been developed there will be an appendix for this. Our departmental requirement is that a CD, DVD or USB memory stick of all source code is submitted to your project supervisor. The appendix contained in the report will refer to this CD, DVD, or USB memory stick, provide a directory style listing of the files submitted and instructions for rebuilding and running the software. This might be source code of programs written in high level languages (C, C++, etc) together with any pertinent files ('make' files, non-standard libraries, etc). Alternatively, or in addition, you can place some or all of the source code in the appendix. In any case the source code needed to reconstruct any software you have developed must be submitted in its entirety in the CD, DVD, or USB memory stick. (Any code that has been used from a third party should reference the original developer).

Hardware designs will require schematics/circuit diagrams, PCB layouts, simulation tests and pin outs.

Most projects will require some form of user documentation to explain how to use the software/hardware produced. A researcher following up the work may wish to utilise the work of the original author and an appendix laying out the format of input files and how to interpret the output is required.