Computing/Computer Forensics/Business Information Systems/Computer Security & Ethical Hacking Courses 2013/14

Level 6 Project Research and Planning

Project Contract

Name:	**Student I.D.:**
Course: BSc Computing	**Supervisor's Name:**

FINAL PROJECT INDIVIDUAL AIM & OBJECTIVES

Title of my Project: Client management system for a private music teacher

Aim of my Final Project: To Research, design and implement a secure database system with user interface for a client management system. Evaluating each section of the project as it is conducted.

Objectives of my Final Project:

- To plan all stages of the project using the system development life cycle
- To research the security of data and its importance
- To research the advance features of Apex
- To investigate the methodologies of designing a database system. Using this research to select a suitable methodology for the project system
- To use correct documentation when collecting requirements for system
- To use collected requirements to design database structure and user interface
- To implement database tables base on design
- To implement user interface using research and design
- To conduct thorough test of product
- To evaluate system using testing documentation
- To evaluate project management using documentation collected throughout project

Specification of my Final Product: The final product will be a client management system for a private music teacher. The system will allow the client to update, amend and delete their student's personal details. The system will be secure in order to ensure that such personal details cannot be picked up by a third party. The system will allow the client to keep a record of their sessions with the student including what instrument techniques are being taught and what level their student is at. Along with this the client will be able to add any events their student is preforming at such as concerts and music exams. The system will also allow the client to include prices for the individual sessions, any payment offers the client my wish to add and if their students have paid. This will allow for reports to be produced such as total predictive income and actual income.

Future changes

The system will be a web enabled system to allow the client's students to log in and view when their next session is and conform whether they can still attend. As the client may wish to expand their business the system will also allow for multiuser logins.

Rationale: The project as a whole will allow me to develop my employability

skills such as time management and working independently, which will support my application for work once finishing university.

The research section of the project will also contribute to this as well as improving my skills of critical analysis, which can be applied to other modules on the course. When researching for this project I will be able to gain a vast knowledge of creating and implementing a database system and which methodology is suitable to use. Although not all my research may be needed during the course of this project, it will be needed in future projects during my career.

The design and implementation phase will allow me to practice and progress the skills I have developed during my time at university, this will ensure that they are fully advanced for entering career level and improve my confidence in using these skills.

When evaluating the project I can look at the issues I have come across and need to improve before starting other projects. I can also look at the successes I have had during the project, this will benefit me when filling in job applications.

The product I will be implement will allow the client to move from paper based documents and multiple spread sheets as when finished all the information that they will need will be in one secure place allowing them to amend the data easily. This will be less time consuming for the client and improve the general running of the business as any reports they need, can be created automatically.

RESEARCH

Title of my Research Report: Security risk and threats in a database system and the technology to resolve the issues.

Outline of my Research: This report will look into the issues that surround data security as this project will contain personal details of the clients and may be open to multiple-users, it is important to understand threats to the system and how to resolve them. Many database system created today have to include some form of security features this could be to protect data from a third party or to protect data from users. The report will look at the various threats in a database system that can occur focusing mainly on a lack of user power limits, SQL injections and Database inconsistencies, which as well as being a security risk can also effect the performance of a database. Whilst there have been many ways to hack into a database, there have also been solutions created, the next phase of the report will look into the best methods to protect a database and the technology behind creating them, this will include how to encrypt a database, creating views to protect data and ways to implement a security plan. As this project is going to be implemented using Apex research will also need to concentration on the features used in this application to ensure the data can be protected.

This report will also be focusing on the corrected methodology to use when creating a database system, it will look at three of the most popular types of methodology; Waterfall, Agile and Rapid. The key to a successful database lies in the planning and this relays on choosing the best methodology for a project. The

report will evaluate the advantages and disadvantages of using each methodology, then using this information critical analysis it in order to select the best methodology for this particular project.

Bibliography:

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EMPLOYABILITY SKILLS ANALYSIS

Employment area: Database administration

Identified Skills	Rating [0 – 5]	Development method
Note taking	3	Once notes are written go back over them and expand to add additional information
Report writing	2	Attend a skills for learning session on topic
Communication skills	2	Present my findings as both a written report and discussion
Problem solving	3	At my part time job, many issues occur on a daily bases that I will try to solve by evaluating and managing the problem
Working under pressure	3	Plan a study timetable to give myself enough time on each module
Organisational skills	3	Working part time in an office I have to prioritise my work load by importance but ensure all work is complete by the end of the business day
Ability to learn and adapt	3	Use feedback given from module assessments to improve my work
Team work	3	During some of the modules I will be working as part of a group, this will improve both communication and listening skills
Self-motivation	3	Working on the project independently, I will have to self-motivate myself to complete the work to deadline and aim for my goal of graduating
Confidence	3	As I develop my skills over the course of the year my confidence will also improve
Oral presentations	2	Research into good presentation techniques, practice alone and in front of a group

PROJECT PLANNING DOCUMENTS

Please see below for:

- Work breakdown structure
- Gantt chart
- UML diagrams

RESOURCE REQUIREMENTS

The hardware and software I require to complete my Project successfully:

Item (Hardware or Software)	Source ***(Faculty, own or specified other organisation)***

Microsoft project	Faculty
Microsoft office	Own/Faculty
Oracle Apex	Faculty
Qsee	Own/Faculty
Personal Computer	Own/Faculty
Printer	Faulty
External hard drive	Own
Server	Own
Notepad++	Own
ETHICS: Completed Online	

Work Breakdown Structure

Task Name	Duration	Start	Finish
Initial Research Plan			
Initial Project Ideas	20 minutes	Thu 26/09/13	Thu 26/09/13
Discuss Project Ideas With Supervisor	10 minutes	Thu 26/09/13	Thu 26/09/13
Initial Project Aim	10 minutes	Thu 26/09/13	Thu 26/09/13
Initial Project Objectives	30 minutes	Thu 26/09/13	Thu 26/09/13
Initial Research Report Title	20 minutes	Thu 26/09/13	Thu 26/09/13
Find Literature For Report	2 hours	Thu 26/09/13	Thu 26/09/13
Project Contract			
Create draft project contract	1 day	Thu 03/10/13	Thu 03/10/13
Project Title	10 minutes	Thu 03/10/13	Thu 03/10/13
Project Aim	10 minutes	Thu 03/10/13	Thu 03/10/13
Project Objectives	30 minutes	Thu 03/10/13	Thu 03/10/13
Project Specification	20 minutes	Thu 03/10/13	Thu 03/10/13
Project Rational	20 minutes	Thu 03/10/13	Thu 03/10/13
Research Report Title	10 minutes	Thu 03/10/13	Thu 03/10/13
Outline of Research	20 minutes	Thu 03/10/13	Thu 03/10/13
Bibliography	1 hr	Thu 03/10/13	Thu 03/10/13
Employability Skills Analysis	20	Thu 03/10/13	Thu 03/10/13

	minutes		
Project Planning Documents	3 hours	Thu 10/10/13	Thu 10/10/13
Resource Requirements	10 minutes	Thu 03/10/13	Thu 03/10/13
Ethics	10 minutes	Thu 10/10/13	Thu 10/10/13
Submit Draft Project Contract	0 days	Sun 06/10/13	Sun 06/10/13
Receive Formal Feedback For Project Contract	20 minutes	Mon 14/10/13	Mon 14/10/13
Further Research	3 hours	Thu 17/10/13	Thu 17/10/13
Update Project Contract	1 hr	Thu 17/10/13	Thu 17/10/13
Submit Final Project Contact	0 days	Sun 03/11/13	Sun 03/11/13
Project Research Report			
Research Of Methodologies	6 days	Thu 17/10/13	Thu 24/10/13
Research of Security Issues	6 days	Thu 24/10/13	Thu 31/10/13
Research of Advance APEX features	6 days	Thu 31/10/13	Thu 07/11/13
Title	11 days	Thu 14/11/13	Thu 28/11/13
Abstract	11 days	Thu 14/11/13	Thu 28/11/13
Contents	11 days	Thu 14/11/13	Thu 28/11/13
Introduction	11 days	Thu 14/11/13	Thu 28/11/13
Literature Review	11 days	Thu 14/11/13	Thu 28/11/13
Summary	11 days	Thu 14/11/13	Thu 28/11/13
Bibliography	11 days	Thu 14/11/13	Thu 28/11/13
Submit Research Report	1 day	Sun 08/12/13	Sun 08/12/13
Design			
Collect Requirements	6 days	Thu 12/12/13	Thu 19/12/13
Design Database	6 days	Thu 12/12/13	Thu 19/12/13
Logical Design	6 days	Thu 12/12/13	Thu 19/12/13
Physical Design	6 days	Thu 12/12/13	Thu 19/12/13
Design User Interface	6 days	Thu 12/12/13	Thu 19/12/13
Create Test Plan	6 days	Thu 12/12/13	Thu 19/12/13
Implement			
Produce Prototype Product	21 days	Thu 16/01/14	Thu 13/02/14
Create Database Tables	1 day	Thu 16/01/14	Thu 16/01/14
Add in Data	1 day	Thu 16/01/14	Thu 16/01/14
Produce User Interface	16 days	Thu 23/01/14	Thu 13/02/14
Prototype Demonstration	0 days	Thu 20/02/14	Thu 20/02/14
Produce Final Product	14 days	Thu 27/02/14	Thu 20/03/14
Resolve Any Issues Given Through Formal Feedback	21 days	Thu 27/02/14	Thu 13/03/14
Advance User Interface	11 days	Thu 27/02/14	Thu 13/03/14
Test Final Product	1 day	Thu 13/03/14	Thu 20/03/14
Resolve Any Issues Found Whilst Testing	1 day	Thu 20/03/14	Thu 20/03/14
Product Submission	0 days	Sun 30/03/14	Sun 30/03/14
Final Product Demonstration	0 days	Thu 03/04/14	Thu 03/04/14
Evaluation			
Evaluate Research Phase	21 days	Thu 27/03/14	Thu 24/04/14
Evaluate Methodology Used	21 days	Thu 27/03/14	Thu 24/04/14
Evaluate Project Management and Employability	21 days	Thu 27/03/14	Thu 24/04/14
Product Evaluation	21 days	Thu 27/03/14	Thu 24/04/14
Project Conclusion	21 days	Thu 27/03/14	Thu 24/04/14

Hand in Evaluation	0 days	Sun 27/04/14	Sun 27/04/14