

University Name

Department Name

Student's exam assistant

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Prepared by

?????????

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????????

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Abstract

The proposal in this project is preparing students in advance to appear their exams. The way to do that is in building a dynamic website through which students can do many tasks necessary, and help them in passing their exams. The proposed website is connected to a database which contains many important information necessary for the operations of this website. The main objective of this website is assisting students in their studies. This website enables students to know the way in which the exam is held and they are able to perform a pretest which is very helpful for them to know if they have prepared enough and well to pass the exam. Professors can as well get benefit from this website through the previous question papers stored in the designed database.

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Chapter 1

Introduction

For most people, success is the result of working steadily toward a goal. For college-bound students, the college application process begins early on, and preparing for critical exams is one step on the road to a successful future. With the exam season fast approaching, any student may be searching for ways to get every possible ounce of benefit. The proposed website in this project can help students to prepare well for their exams and assist them in a way they are able to have an idea about the questions might be asked in the real exam.

1-1 Problem definition

Any student in the world might face problems during his study at the university. Due to these problems, there is a possibility that he will fail in his exams where he hasn't studied well or prepared well for the exam. On the other hand, professors who are the teachers may not be available every time to clarify everything for these students and help them to pass their exams. Any student may face problems in any course because he is not familiar with exam system and the way the exam is held. These problems lead to the failure of the student in a particular course or in many courses.

1-2 Suggested solution

The suggested solution is realistic as the following paragraph clarifies. With the developments of today's technology especially in the domain of communications and internet, it is necessary to propose a solution for the above mentioned problem which is under the same category. The proposed solution in this project is building a dynamic website connected to a database which contains all the required data about courses, students and professors. Through the suggested website, any student can sign up and choose any course he/she wants and makes self-test. The proposed solution is realistic in depth and extent because it is important for any student who faces difficulty in passing his/her exams due to the lack of information about the way the exam is held. The proposed solution is planned according to the new technologies of today and it is very useful for the students.

1-2-1 An initial textual description of the system

The proposed solution in this project is a good assistance for students to test their information in a particular course or more. The website proposed can be accessed by students and professors. Any student can choose any course he/she wants or any course the student feels that he has to examine himself in. Then the student can specify type of the exam (either mid semester exam or end semester exam). The student can make a self-test through this website and after that he/she can check the correct answers also through the website. The website contains programs for evaluating student's performance and computing the time taken by a student to answer all the questions and complete the exam. In this way, the student is able to appear an exam similarly as if he/she is appearing a real exam.

Using this website, professors can prepare question papers and correct answers. They can get benefit from the question papers stored in the designed database. The professors can make any modification on the question papers through the proposed website.

1-2-2 Implementation Methodology

As the proposed solution is a software production process, therefore; there are many stages or activities to be completed before reaching the implementation stage. The first stage is analyzing the system to be designed which is a website with a database connected to it. In this stage, all the system components must be specified along with their relations to each other. And the operations ,each of the system component can do, should be known and included. All required data to be stored in the database must be collected. Drawing initial designs of the system such as DFD diagram and system model must be done so that the suggested solution will be well known and planned. Completing this stage is essential because the design will start from it. The stage of implementation is building the database and coding the website and connecting them together. Final stage after implementation is testing the designed website and making available on a network in order to check if it works in a proper manner or if it needs some modifications.

1-3 Explanation of project scope

Problem definition proves that the solution has to be a software production and all software engineering stages has to be applied in accomplishing this project. Project

scope defines all of the work to be completed during the project. The scope describes what is to be accomplished in the project. According to project scope definition, project scope of this project is the stages which have to be done in order to solve the discussed problem. The stages which will be completed in this project are: system analysis in which the problem will be discussed and studied well. Planning the system and the initial design with the aid of modeling software tools and drawing the necessary diagrams for that must be done as well. Next stage is designing and building the database which contains all necessary information about students and professors and courses. Designing and coding the website through which professors and students can get in touch and students can choose a particular course and make a test. Final stage in this project testing the designed solution (the website and the database).

1-4 Target customers

The project can be used by university students in general and it is considered as a good step for them to test their information before appearing the real exam. Therefore; students are the target customers of this project and it is such an important assistance for them.

Chapter 2

Literature Review

A literature review is a critical and in depth evaluation of previous projects or researches on the same topic. It is a summary and synopsis of a particular area of research, allowing anybody reading the project or the research to establish why we are pursuing this particular approach in the project. A good literature review expands on the reasons behind selecting a particular project question.

literature review pulls the previous research together, and explains how it connects to the solution proposed by the current project. All sides of an argument are clearly explained, to avoid bias, and areas of agreement and disagreement are highlighted.

The basic idea in this project is assisting students to pass their exams. The problem has been clearly identified and explained. The proposed solution is implemented by designing a website through which students who are preparing for exam can log in the website and make a pretest. There are many websites which are designed for the same purpose therefore; the literature review in this project is a summary for the most related and important websites.

Quizlet[1] is one of the most important examples on such type of websites. In this website, test mode saves teachers time by automatically creating tests and making it easy for the students to quiz themselves on relevant material. Test works best as a resource for students to practice before an in-class test or exam. It's not a secure testing platform, and Quizlet doesn't offer score reporting or other formal assessment tools. any student can use Test mode to create and print a test with different types of randomly-generated questions based on the content in any study set.

In [2] an on line exam builder which is a serious testing software for students. This website has the following important features:

Easy to use

This exam builder is simple and easy to use. For students as well as for the administrators. With the online exam builder it's easy to start, which makes it more fun.

Looks great on all devices

It doesn't matter if the user is on a phone, tablet or pc: the online exam will look beautiful. The online examination system is fully responsive, so the student can be engaged on any platform.

Awesome support

Are there any questions about the online examination software? the support owls are always by students' side and provide them with the best possible support!

The ClassMarker hosted Online Testing software is the best Quiz maker tool for teachers & businesses[3]. Used for business & training Tests; online certifications, recruitment & pre-employment assessments; health and safety quizzes; schools, universities, distance learning, online courses, E-Learning, self-study groups, practice Tests & more. This custom web-based Testing tool allows students to easily create & give secure online Exams to their exact requirements with features such as time limits, public & private Test access, randomize Questions, instant feedback, multiple choice, matching, short answer, essay & more Question types, embed exams in Wordpress & Google Sites.

QuizStar[4] is a Web-based quiz maker that enables students to create, administrate and automatically grade their quizzes online!

With QuizStar students can:

- Manage classes and quizzes
- Attach multimedia files to questions
- Make quizzes in multiple languages
- Access from any Internet-connected computer
- Allow students to complete and review

[5] is a website for making quizzes for the students in Saudi Arabia. In this website, many question papers examples can be found for many materials. Through this website, any student can make quiz in a particular material. The importance of this website comes from the reality that students can add any university in Saudi Arabia and make a quiz within a particular college in a specific material.

The above listed websites are related works to the project and all of them serve as students' assistants for exam. Any student, through these websites, can make quiz in the subject he/she is going to appear exam in. The proposed website in this project has some features which make it better than the previous works. These features are:

- The designed website is dedicated for assisting and helping students and professors. Students can benefit from the quiz and professors can benefit from the question papers previously listed in the database of the website.
- The designed website is much concerned with the student than its concern with the university management.
- The designed website is friendly and easy to use. Any student can sign up for any subject he/she wants and make the quiz.

Chapter 3

Requirements and analysis

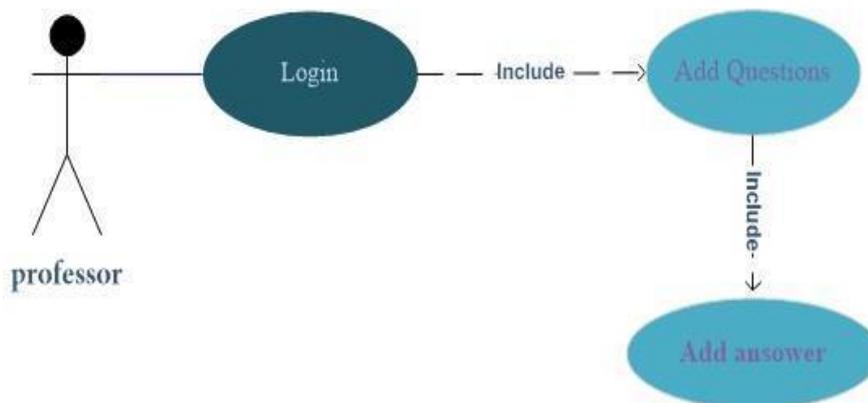
System analysis is the process of studying the target system and understanding it. It is necessary for any system to be designed and implemented that it is well studied and analyzed. Specifying the requirements for designing the system is very important so that every step is clear before commencing the next step. System analyzer studies and checks all the tasks, parts, and features of the required system and draws all the diagrams that represent all of these details. In system analysis it is necessary also to specify all the probable components of the system and their relations. In this chapter, system analysis for the proposed bookshop (website and mobile application) has been done and elaborated.

3.1 Functional Requirements

Main components of the proposed system are: Student, Professor, and Administrator. Functions of the system are the functions which are performed by each component in the system and they are as follows:

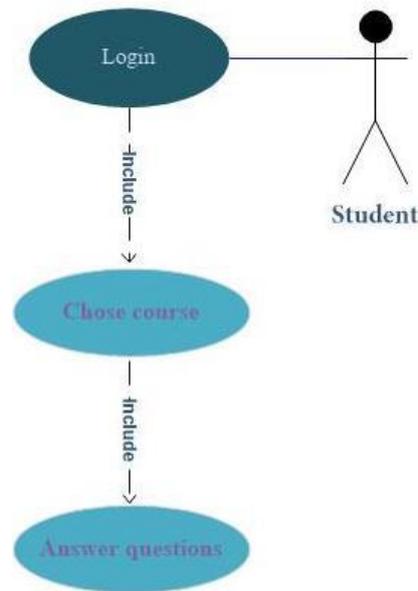
Professor:

- Adds question list for a particular course.
- Takes a look at the question lists which are stored in the database.



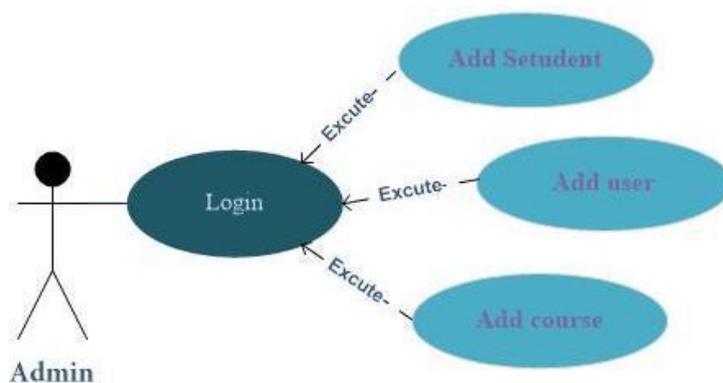
Student:

- Sign up for the test.
- Chooses the desired course.
- Specifies the type of the exam (mid semester or end semester exam).
- Appears an exam (answers the questions).



Admin:

- Adds a course.
- Adds a student.
- Adds a professor.



3-2 Software, Hardware or any other Requirements

(a) Software Tools required:

- ☒ PHP My Admin client to create the database[7].
- ☒ PHP server to do the communication with the designed database.
- ☒ CSS, HTML : for designing the website[8].
- ☒ Microsoft Visio: for drawing the required diagrams in the project[9].
- ☒ Mysql: for designing the database required for collecting the data of the project[10].

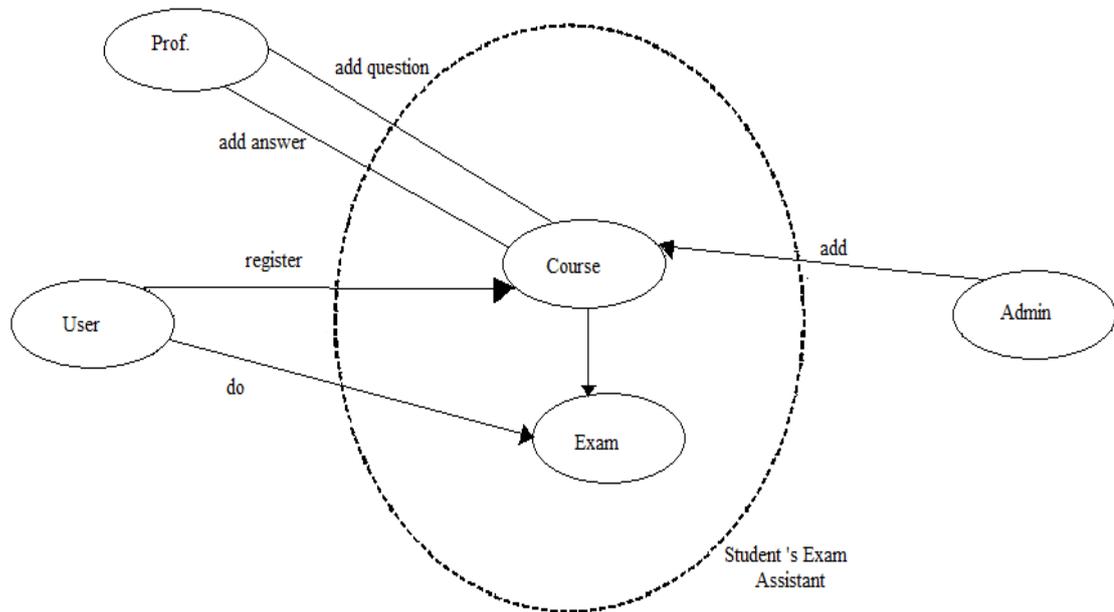
(b) Hardware Requirements:

1. A computer with good specifications for programming purposes.
2. A web server for host the website to be designed.

3. LAN consists of many computers connected to the configured web server so testing the designed website.

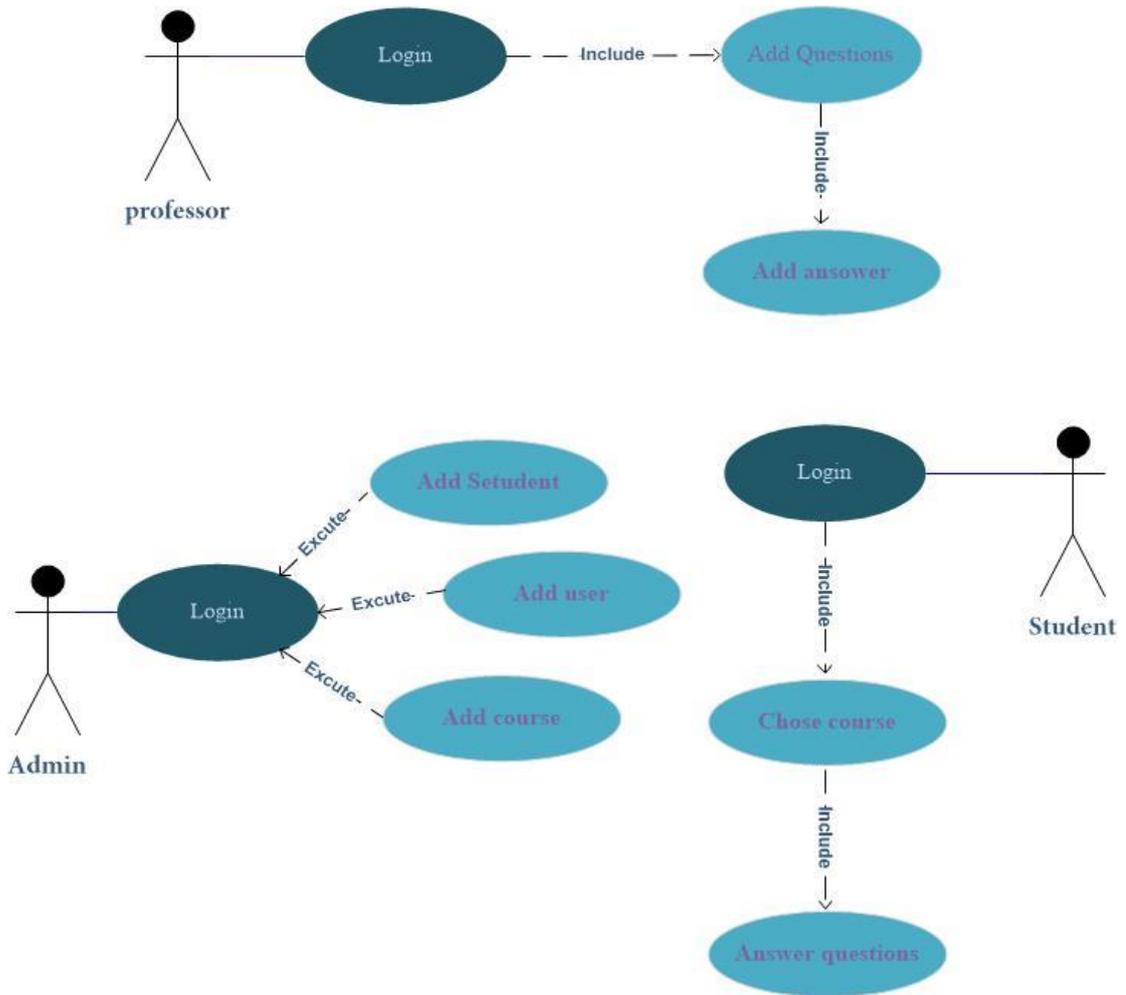
3.2 The Initial Design of the system

- DFD of the system

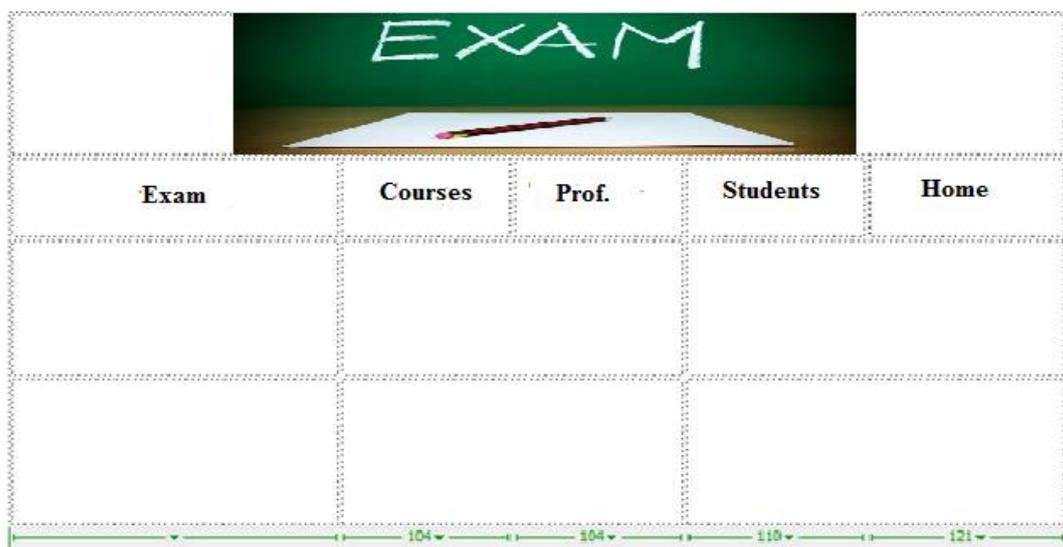


Data flow diagram of the system

- Use Case diagram



- Initial design of the website



3.4 Software or modeling tools used for the initial design:

As mentioned earlier in question 4, there are some software tools must be used in order to complete all the stages of the project from analysis till implementation and test. Software tools used are as follows:

- Microsoft Visio for diagrams such as DFD and Use case.
- PHP My Admin client to create the database.
- PHP server to do the communication with the designed database.
- WAMP server which has the main three parts for any developer:
 - Windows Application server
 - MySQL server
 - PHP server

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