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E-LEARNING SYSTEM ANALYSIS

System Analysis

Information System Project 2021/2022

Version 1.0 approved

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Business need

Goals:

E-Learning provides scalability which helps in providing training. All students can receive the same type of syllabus, study materials and train through E-Learning. Through E-Learning, you can save time, **money** and reduced transportation cost. so, E-Learning is cost-effective compared to traditional learning.

Requirements

- kotlin. is the programming language that underpins all Android development. ...
- Understanding of XML. XML was created as a standard way to encode data for internet-based mobile applications. ...
- Android SDK. ...
- Android Studio. ...
- APIs. ...
- Databases. ...
- Material Design.
 - 4. Other Team Members
 - A successful project is often the result of smart collaboration.

Problems and salutation

Problem: Often, the worth of online learning is not fully trusted, nor given the respect it deserves. which can lead to cynicism when considering enrolling in online programmes.

Solution: As far as the worth of online education is concerned, employers tend to see the benefit of hiring those who have succeeded online because of the implicit job skills e-learning requires – discipline, initiative, and time-management, flexibility to study anywhere, anytime. Manage your time well

Problem: e-learning does require the necessary computer equipment to run online learning platforms. This can potentially pose problems for students and schools with old, outdated hardware and software.

Solution: While a host of obvious solutions may spring to mind – getting a newer computer, for example – for some that simply may not be possible. However, there are solutions offered by e-learning providers that tackle a wide range of problems faced by students. Course materials are downloadable, which means given time and a little organization an entire course can be downloaded and the materials studied offline.

Business Requirement:

- This project focuses on developing an E-learning website which provides facility to institute and students in a manner that the learning, evaluation; assessment does not remain limited to the four walls of a classroom. This website works finding new ways to make an institute a center of excellence in education by providing all the study material, exams available to students online. The students belonging to different places, unable to attend regular classes get access to educational courses across wide range of programs. It provides facility to students to communicate with faculty regarding academics.
- The system will be having 3 roles - Faculty, Student and Administrator. There will be a set of permissions associated with each role.
 - **Faculty:**
This role enables the user to offer courses, upload lectures, set exams for courses he is offering.

➤ **Student:**

This role enables the user to register for courses, answer tests, view lectures.

➤ **Administrator**

This role enables the user to manage users (create, edit and delete) besides performing other administrative tasks such as monitoring the system operation, editing system configuration etc.

- It will store all data in a single centralized database. The database will contain the following information:
 - 1.Student details
 - 2.Faculty members details
 - 3.Student's query and their solutions
 - 4.Courses Information
- The site will provide course study material to the students in electronic form.
- All the information including course details, fee structure and notices for students will also be displayed on the site.
- The site will be used by three different types of users: Students, Faculties, and the administrators having different interface for each type of user.
- Each user will be provided with a username and password to access his/her account on the site.
- The students can take their mock test of their course and evaluate themselves.
- The faculties can upload lectures on the site.

Business value

One of the importance of e-learning in education is that tutors and

participants both can develop advanced learning skills. For example, creating and selling ebooks is one such advancement.

E-learning has worked towards bringing learners, tutors, experts, practitioners, and other interest groups to one place. Thus, there is a good practice of knowledge sharing followed through different online platforms. This is important in current times as competition is rising and the world

Time constraint

The project is going through some stages, which we are now clarifying and setting the dates for the delivery of each of them, in addition to setting the date for the start of the final delivery

Initiation: It will be delivered on Thursday 17/3/2022

Planning: It will be delivered on Monday 18/4/2022

Execution: It will be delivered on Tuesday 31/5/2022

Monitor and control: It will be delivered on Tuesday 31/5/2022

Project close: It will be delivered on Friday 3/6/2022

Scope constraint:

In this element, we try briefly to clarify the objectives, features, functions and some of the tasks required of the project

The main objective of our project is to provide e-learning in schools, which is basically and effectively relied upon, such as attendance education, due to the advantages offered by e-learning in terms of saving time for students and teachers and saving money, in addition to the severe need for e-learning at the present time due to the presence of the Corona pandemic that led to It is difficult to

commit to attending regularly, but there are some tasks that are required to be done and provided so that the project is able to perform its function with the required performance, including providing a technical team capable of doing maintenance for the software at any time to face any malfunction in the system and perform periodic maintenance for it and also provide Powerful database of tab data and others (all the required tasks are mentioned in detail in the constraints in the previous item

Special issues or constraints

In our project, there are some limitations and risks that we are trying to clarify in order for the project to be effective. One of these limitations is that the school must have a strong database to record everything related to student data, including names, academic years, grades, and others, and update it continuously, and it must also provide A strong Internet that supports the performance of online tests and the provision of lessons, etc., and that you conduct a training course for teachers and all employees so that they can benefit from the system as much as possible. Devices for students and teachers that support the Internet must also be provided to ensure the proper functioning of the educational process and that Every student or teacher has the ability to join the system, and every student and teacher must have their own academic email to access the school's platform. There are also some risks facing the project, which is the possibility that the database will lose some data of some students or all students at any time, or that the Internet is exposed to any defect during the performance of the tests, or that the academic email of the student or teacher is exposed to any kind of penetration and

Cost Constraints :

there's a desire to create one training to train employees, need

two employees to who will do the editing work for users of the application who do not know the work of video editing

need to three new hardware and one server to suit and keep pace with the increased use of users of the application, we will do two training courses will be conducted to attract a larger number of users

But there are some cost restrictions that do not allow this as a specific project budget, profits are still covering the cost of the project, there is an increase in employee salaries, low currency value

Technical Feasibility

E-LEARNING SYSTEM IS FEASIBLE TECHNICALLY , ALTHOUGH THERE IS SOME RISK

BUT THEY ARE FEW

TUNE SOURCES RISK REGARDING FAMILIARITY WITH E-LEARNING

New users will encounter some minor problems in the system... since they are using the system for the first time and nothing more

The system will be a little strange or incomprehensible to those * outside the school category or the elderly

TUNE SOURCES RISK REGARDING FAMILIARITY WITH THE TECHNOLOGY IS MODERATELY LOW

The Information Technology Department has sufficient * experience in the field of data and web

There is no new technology in the system that will conflict with * the rest of the organization's systems... and the system does not take much time to master its use



THE PROJECT SIZE IS CONSIDERED MEDIUM RISK

The team working on the project will consist of 5 people *

The project time frame is somewhat critical, given the rapid * progress of the education system

THE COMPATIBILITY WITH TUNE SOURCES EXISTING TECHNICAL INFRASTRUCTURE SHOULD BE GOOD

The infrastructure of the Internet is fundamental to the existing * system and is able to accommodate the new idea

Economic feasibility

Rate		5.00%						
		Year	2022	2023	2024	2025	2026	total
Benefits								
Better widgets				45,000	45,000	45,000	45,000	180,000
Faster information				75,000	75,000	75,000	75,000	300,000
Generally better sells				300,000	340,000	400,000	420,000	1,460,000
(Total benefits)				420,000	460,000	520,000	540,000	1,940,000
(Total benefits PV)				400000	417233.56	449195.55	444259.34	1710688.4
Development Costs		Year	2022	2023	2024	2025	2026	total
Intial servec			125,000	0	0	0	0	125,000
Software licenses			50,000	0	0	0	0	50000
Development laboar			1,000,300	0	0	0	0	1,000,300
Incremental data storage			50,000	0	0	0	0	50,000
(Total Development Costs)			1,225,300	0	0	0	0	1,225,300
Operational Costs								
Hardware maintenange				20,000	20,000	20,000	20,000	80,000
Anti social network adverts				10,000	10,000	10,000	10,000	40,000
Software licenses				50,000	50,000	50,000	50,000	200,000
(Total Operational Costs)				80,000	80,000	80,000	80,000	320,000
(Total Costs)			1,225,300	80,000	80,000	80,000	80,000	1,545,300
(Total Benefits-Total Costs)			-1,225,300	340,000	340,000	340,000	340,000	394,700
Cumulative Net CashFlow			-1,225,300	-885,300	-545,300	-205,300	134,700	
Return on investment (ROI)		8.716754028						
Break Even Point		3.603823529	years					
Present value Total costs			1,225,300	76,190	72,562	69,107	65,816	1,508,976
NPV(PV Total Benefits-PV Total Costs)IRR			201,712					

Organizational feasibility:

- From an organizational perspective, this project has low risk. The top executives of the company have a strong interest in the project.
- The project requires an environment that is provided with a good technology like smart phones or laptops, a good internet connection, and people aware enough about using technology.
- The users of the system, the teachers and the students, are expected to save a lot of time and effort by using this app, and for abroad students. There are some concerns that the students or the teachers are not trained enough to use this kind of technology, but the is going to have instructions about how to use it and it will be easy.
- The project NPV is increasing through the years, so it is encouraging for investors to invest on in these days especially during covid-19.

