Business Case for Collaboration Peer Teaching System.
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1.0 Introduction/ Background

A collaboration peer teaching system, where students registered in a course can join the group of the course and use the system to collaborate on the subject, exchanging ideas and help each other with the course contents. The system has 3 channels of user interfaces, a web site and 2 mobile apps, one that works for Android® and the second app for Apple IOS®.

2.0 *Business Objective*

1. Substitute Google Classroom system in the market.
2. Increase profit margin of the organization.
3. Capture a bigger market share.
4. Globalize our business allover the world.
5. Increase the efficiency of the education system.
6. Provide additional source of profit for teachers and students.

3.0 *Current Situation and Problem/Opportunity Statement*

Since one of the main benefits of the system is trying to substitute Google Classroom system ,so there is high competence as Google Classroom is widely spread allover the world and this would force us to increase our marketing effort, in addition Google classroom system has several features that our system provide it with money and provide it for free. Unfortunately our system provides only one payment method and this might have an impact on our profit as some users might find it not suitable for them. The other problem is there is a lot of competitors in this market and this makes a big opportunity facing our system, as many users may find our system is not special.

4.0 *Critical Assumption and Constraints*

The proposed system must be a valuable asset to Ain shams University. It must be supported by current staff members, Dr. Ayman Baha, and TIEC office. It must be assumed that the project manager will lead the project effort and the project team must be actively involved. The purpose of our financial analysis we will assume appropriate costs for labor ,software and hardware. It is assumed that the new system will be able to run on the hardware of the Ain Shams university. The system must contain all information and data in a safe, secure setting and able to be supported by existing staff. The system revenues will be based on a revenue share model where 10% of each sale will be deduced

to the system owner. Also, a flat subscription fee will be charged for students. The system must follow all the privacy and policy terms of Ain Shams university ,TIEC office, and the international standards.

5.0 *Analysis of Option and Recommendation*

There are three options for addressing this opportunity:

1. Do nothing. The existing system is sufficient and doing well and we can operate without this new project.
2. Purchase access to specialized software to support this new capability with little in-house development.
3. Design and implement the new system in-house, using mostly existing hardware and software.

Based on discussions with stakeholders, we believe that option 3 is the best option.

6.0 *Preliminary Project Requirements*

The main features of the system include the following:

1. The system supports many platforms like WEB, Android®, and Apple IOS®.
2. The student registered in a course can join the group of the course and use the system to collaborate on the subject, exchanging ideas and help each other with the course contents.
3. The system offers a marketplace where paid services are also be available, such as a student can sell a problem solution to his peers for 5 L.E. per solution per buyer.
4. Each course group have a coordinator (the course teacher or one of the assistants) to make sure that no cheating, nor solving homework's or implementing projects for others is happening.
5. The system have all the features of Google Classroom.
6. The users are registered in the same way as Google Classroom.
7. The course coordinator will also be rewarded 25% of all the system income of his/her course.
8. The system have the ability to create and manage online chat rooms where text, voice, and videos can be streamed.

7.0 *Budget Estimate and Financial Analysis*

The preliminary estimate of costs for the entire project is 140,000$. The cost estimate is based on the project manager working about 10 hours per week for six months each hour is costs100$ and total 250 hours that costs 25,000$ and other internal staff working a total of about 60 hours per week for six months each hour costs 70$ and total 1500 hours that costs 105,000$, and we have software and tools license that costs 10,000$/year. All the previous costs make an initial cost 140,000$ in year 0. For year 1,2,3 we have constant

maintenance cost of 30,000$/year and constant software and license cost of 10,000$/year that makes a constant cost of 40,000$/year. We have a discount rate of 10% that makes a discounted cost each year for a discounted values (36,400$, 33,200$, 30,000$) in years 1,2,3 respectively that makes total discounted cost of 239,600$.The project benefits estimation is based on 10% of all the original benefits gained from the project. The benefits are based on 2 main sources (flat subscriptions, and paid services). The total subscriptions (10% of the original) are 150,000$/year and total paid service (10% of the original) are 50,000$/year that makes a constant benefits of 200,000$/year starting from year 1, We have a discount rate of 10% that makes a discounted benefits each year for a discounted values (183,000$, 166,000$, 150,000$) in years 1,2,3 respectively that makes total discounted benefits of 498,000$. We have total discounted benefits-costs of 258,400$ which is the NPV, and a payback period of one year, and the ROI =108%.

8.0 *Schedule Estimate*

The sponsor would like to see the project completed within six months, but there is some flexibility in the schedule. We also assume that the new system will have a useful life of at least three years.

9.0 *Potential Risks*

This project carries several risks. The foremost risk is the students and the feeling comfortable with the competitive systems . User inputs are crucial for populating information into this system and realizing the potential benefits from using the system. There are some technical risks in choosing the type of software used to search the system, implement security, process payments, and so on, but the features of this system all use proven technologies. The main business risk is investing the time and money into this project and not realizing the projected benefits.

10.0 Exhibits

Exhibit A: Financial Analysis:

Created by:Hazem Hmada Abdellatif		**Date:19/3/2019**				
Discount rate	10.00%					
Assume the project is completed in Year 0			**Year**			
	0	**1**	**2**	**3**	**Total**	
Costs	140,000	40,000	40,000	40,000		
Discount factor	1.00	0.91	0.83	0.75		
Discounted costs	**140,000**	**36,400**	**33,200**	**30,000**	**239,600**	
Benefits	0	200,000	200,000	200,000		
Discount factor	1.00	0.91	0.83	0.75		
Discounted benefits	**0**	**182,000**	**166,000**	**150,000**	**498,000**	
Discounted benefits - costs	(140,000)	145,600	132,800	120,000	**258,400**	← **NPV**
Cumulative benefits - costs	(140,000)	5,600	138,400	258,400		
		↑				
ROI →	**108%**					
		Payback in Year 1				
Assumptions						
Costs	$					
Project Management (250 hours, 100$/hour)	25,000					
Staff (1500 hours, 70$/hour)	105,000					
Software and tools licens	10,000					
Total project costs (all applied in year 0)	140,000					
Benefits	$					
subscribations(10% from the subscribations)	150,000					
Paid serveses(10% from the paid services)	50,000					
Total annual project benifets	200,000					