Introduction

🏆 A1.0 Learning activity

Elaboration of the constitutive act.

✏️ Development

1. Elaborate the document attached in the instructions regarding the constitutive act.
2. Record the data indicated in each of the sections of the constitutive act for the case study.

Company:	The vid of knowledge
Project name:	CertiFox
Type of project:	LMS (Learning Management System)
Sponsor:	Foxconn Baja California
Product owner:	Leonardo Enríquez
Project Manager:	Eduardo Morgado
Scrum Master:	Oscar Piña

Purpose of this document
This document defines the general description, objectives and participants of the project. It is mainly related to the authorization of the start of the project. It also provides a description of the current situation, high-level requirements, success criteria, risks and opportunities.

Purpose/Justification
Manufacturing companies hire thousands of employees to meet the needs of the market, these employees must and need to be trained to work in them, not only for audit issues, but also to ensure the creation of a product of high quality standards. Therefore, the process of training and certification of employees is of utmost importance and it is imperative for the company that this is fast, agile and efficient. To meet these objectives it is possible to implement a learning management system, known as LMS (Learning Management System), which helps to reduce employee training times, increase useful working time in the company, have better trained employees as well as mitigate the problem of employees working without being fully certified.
Brief description of the project

A web-based LMS system will be developed that will allow employees to log in and take training and theoretical exams on the same platform. These exams will be graded by the system and the trainer in charge of such course, once such course has been passed a certificate will be issued by the system. Likewise, the system will inform the relevant persons about employees who have not been certified or whose certification is about to expire.
It is expected that the system will reduce the time spent on monitoring courses and certifications, as well as increase the number of certified employees.

Preliminary project scope

1. Decrease implementation times for training and certification of theoretical courses by 50%, from 3 weeks to a maximum of 1.5 weeks for new hires.
2. Decrease the time used for the first theoretical training for new employees, which includes basic and technical courses, by 50% (from 4 days to 2 days), in the first months.
3. Reduce in the first months of system implementation, the percentage of users who continue their work activities with expired certifications.
4. Reduce to 0% the risk of problems and non-conformities related to audits, since employees will not be able to perform their work if they do not have their certification in force.

Expected results of the project / Benefits

As a final result we expect an online LMS (Learning Management System), which can be accessed only from the company's network, where three different types of users, normal users, trainers and training coordinators, perform functions such as:

- enroll in courses, take courses, take evaluations and receive certifications,
- create courses, evaluate users and ensure user certifications,
- validate and approve courses, receive notifications about users with expiring certifications, and keep track of the users under their care,

respectively.
As a benefit , it is expected that the training and certification time of employees will be considerably reduced, speeding up the process so that they can operate in their assigned job as soon as possible, and thus increasing the production time of employees in the company. Therefore, an economic benefit would be expected for the company to develop the software.

High level project requirements

Requirement	Success Criteria
Offer users a platform that is available at all times, that is easy to use and attractive, as well as guaranteeing the security of the information registered there.	• The system is in a web environment and is available at all times. • The graphic interface of the system was developed under the Lean UX methodology. • The query of employee information and certifications is through APIs. • The API's are protected by tokenization.

Offer users to enroll in any course through a catalog, and/or a course roadmap based on an established profile.	• The main screen displays only a catalog of courses for the user logged into the system. • The main screen displays a route map of the courses.
Allow courses that are published and offered to be created using different formats such as videos or presentations, and separated by topics with a maximum size and duration limit.	• The platform shows courses with mp4 (videos) and pptx (presentations) files. • There are no large courses, and if there are, they are divided by serialized chapters.
Offer the user the progress achieved by each course, and when completed through a successful evaluation, award a certification voucher.	• When logging out of the system, a progress of the ongoing courses is saved, and when logging back in, the progress of each specific course can be observed. • Upon successful completion of a course evaluation, the logged-in user can view a certificate for that course in the "My Certifications" section.
Provide data analytics on the courses that are most requested, the courses that users have enrolled in and completed, as well as users whose certification is about to expire or expired.	• When you enter the system, you will see on the main screen a series of recommended courses based on their popularity. • When you enter the system, you will see on the main screen, together with the recommended courses, the courses whose certification is about to expire and/or has already expired.
Show managers a list of users who have certifications that are about to expire.	• The coordinator receives notifications of employees who are due for recertification. • The coordinator has at his disposal a list of users whose certificates are about to expire.

Landmarks

Important objectives on the way to project completion are:

- Completion of system modeling.
- Interface interaction optimization.
- Successful completion of unit tests.
- Optimization of code, reduce waiting times in database queries.
- Perform user testing.
- Necessary modifications to the system by analyzing the results obtained from the tests.
- Delivery of the project in a functional version but open to possible future changes.

Risks

#	Identified risk	Probability of ocurrence	Impact	Response plan
1.	Difficulty for the user to interact with the platform.	☐ High ☐ Medium ☑ Low	☐ High ☑ Medium ☐ Low	Reduce the load of information on the screen, delivering a clean interface and in common language.
2.	A large number of users simultaneously connected to the platform causing a slow network.	☐ High ☑ Medium ☐ Low	☑ High ☐ Medium ☐ Low	Perform performance tests before to deployment, and when network slowness occurs, increase bandwidth for this service.
3.	That the system development time is extended due to a failure during system implementation.	☑ High ☐ Medium ☐ Low	☑ High ☐ Medium ☐ Low	Code modification/optimization and testing before upgrading the system.
4.	That the company places emergency employees in non-certified jobs.	☑ High ☐ Medium ☐ Low	☐ High ☑ Medium ☐ Low	Enable the platform to certify employees in temporary jobs.

Preliminary cost estimate / Budget

Based on the budget, it is planned to be implemented in an already functional productive environment, which has the servers and the necessary infrastructure so that the proposed project can be implemented without problems, the preliminary estimated cost only takes into account the expenses of software development.
The cost of software development by the company "The vid of knowledge" is **$20 dllrs** per useful hour of work, therefore, the project is projected to **4 months** of development, with **6 hrs of work per day**, giving a total of **480 hrs**, where **480hrs x 20dlls** gives a result of $9,600 dlls, which is approximately **$192,000 mexican pesos.**

Assumptions

Circumstances or events outside the project that may affect its success and that we as a team believe may happen, but are beyond our control are:

- That the training staff does not give the user the practical course.
- Failure to update the course in the system if the operation process has changed.
- The company's network bandwidth is not sufficient to satisfy the system.
- It takes the user more time than estimated to finish a course.
- The company requires more functionalities for the proposed system, so more time is needed for development.

Restrictions
The constraints affecting project performance are: • Experience on the part of the development team is limited. • Each member has a different work schedule, which could make it difficult to hold feedback meetings for the project. • There is a time limit for the development of the project proposal. • For the training of the users, the current courses of the company, in addition to a digital presentation, have training and oral teaching, which cannot be captured in a digital course. • To ensure the security of the company's data with tokenization of the APIs, the target company needs to develop the latter in its application programming interfaces.

Project Authorization			
Name	**Position**	**Signature**	**Date**
Leonardo Enríquez	Product Owner	_____	April/20/2021

3. Include individual conclusions.

- Cruz Vera Elden Humberto

> Although I had a couple of difficulties during the completion of this activity, mainly I struggled to develop the milestones and assumptions of the project, since I felt that they did not describe what the activity requested. Like the previous activity, it was also a small challenge to develop the document in English, since the activity was somewhat extensive.

- Perales Niebla Abner Jesus

> In this activity, my classmates and I read our individual works and choose the most complete points. In addition, we complement some aspects that were not well expressed. Perform out this analysis and complementing the information with my classmates, gives me a broader picture of the importance of teamwork. As, although we have the same information, we will all observe it from different perspectives. And we will always have something to complement each other

- Piña Meza Oscar Andres

> The realization of this activity allowed me to develop analytical skills with the different sections in which we worked, such as the requirements, because thanks to this activity I was able to develop the ability to differentiate each of them. I was also able to see how each of us could contribute ideas from our point of view and give feedback. In this activity we were able to learn more about the business model and see how it is polished as we move forward with the project, even though we do not know some terms we had no problems.

- Ramirez Cervantes Cesar Manuel

> In some aspects of this activity I had a different perspective than my classmates. That's good because they helped me to understand better the activity and now we can work together at the same time. The topic "risks that many arise during the project" makes me confused because normally we see the risk when it happens, that's the reason why I have problems with that part. Concluding we have a better clear idea about how we move along in the project.

- Morgado Jacome Eduardo

> I believe that a document like this is essential for the development of projects, since it summarizes the nature of the project proposal and stipulates with the client what to do, so that there are no misunderstandings. In the activity, the points that were easier for me to elaborate were those of risks and high-level requirements, since it is something that I have always documented in any project. On the other hand, the points that I found most difficult to develop were the assumptions and landmarks since I had never done them before, where once I understood the meaning of each of them and have read advice on how to write them, I consider them also important for documentation of any project.

Rubric

Criteria	Description	Score
Instructions	Each of the points indicated within the instruction section are fulfilled?	10
Development	Each of the points requested within the development of the activity are answered?	60
Demostration	The student was present during the explanation of the functionality of the activity?	20
Conclusions	Does it include a personal opinion of the activity done by all of the team members?	10

Go to home

Direct link to the repository on GitHub - Eduardo Morgado Jacome

Direct link to the repository on GitHub - Abner Jesús Perales Niebla

Direct link to the repository on GitHub - Elden Humberto Cruz Vera

Direct link to the repository on GitHub - Oscar Andes Piña Meza

Direct link to the repository on GitHub - Cesar Manuel Ramírez Cervantes