

Problem Solving (A3) Report

1. Identify a Problem	PLAN
<ul style="list-style-type: none"> At this moment UPRM doesn't count with a platform to manage, keep track, collected/store related data of the laboratories offered at the university. The costumers for the application will be lab managers, instructors and students. The main idea is creating a web application to offer remote monitoring of the labs this to facilitate inventory management of equipment, reactants, and additional materials. Additionally, this application will serve a data gathering tool for students on laboratory courses meaning that students/ researchers can use the app as the lab notebook to document experiments. This will be helped students to have their data collected detailed, organized, and precise, and will be useful to replace the paper notebooks. As we know laboratory experiments are mostly on teams' groups, so the app will allow you to collaborate with your team in an easy and quick way. As well as that, will allow lab instructors to manage their students and access to the student lab notes. This will help facilitate the interaction between instructors and students. 	

2. Set the Target	PLAN
<ul style="list-style-type: none"> Using a easy-to-use web application to electronically manage and keep track laboratories offered at the university. Establish user accounts based on students, instructors and managers. Create a database with all the collected data of the experiments. Divide/sort the data by laboratories offered by UPRM. 	

3. Analyze the Causes	PLAN
<ul style="list-style-type: none"> At present, all the resources (including administrative management and curriculum setting) of the UPRM laboratory have not been completed electronically. For this application it is important to gather more facts to help determine Root Cause. 	

Topic: "UPRM Laboratory App"

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Name: Zulmarie Jimenez

4. Propose & Implement Countermeasures	PLAN/DO
<ul style="list-style-type: none"> Establish design requirements for each user account. Design user interfaces for each user account. Define tables to store collected data. This new approach will greatly improve many aspects of laboratories and is created for various users. 	

5. Check/Evaluate	CHECK
<ul style="list-style-type: none"> Analyzes user inputs to assess specific security risks and identify ways to mitigate security aspects. Conduct surveys to the users in order to rate the application functionality and received output Evaluate code injection and other vulnerabilities that that code may have. Develop a proper documentation and training about system/application usage. 	

6. Act and/or Standardize	ACT
<ul style="list-style-type: none"> Establishing a priority list 	