**Guide2. APT Project Development**

**Capstone Subject**

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| **1. APT Project Progress Summary** |
| Below, you will find different fields that you must fill in with the requested information. |

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| APT project progress summary | *Frotend and Backend Web (Angular) and Mobile interface (Ionic).*  *Database implementation (PostgreSQL).*  *Functional login with login, user creation and logout.*  *Folder creation.*  *Uploading images to folders via Mobile.*  *BPMN diagram.*  *Entity Relationship Diagram.*  *Realization of 4 + 1 Model.*  *We have started to develop the OCR neural network, where it is estimated to train a network containing a classified dataset with different types of letters to have an optimal accuracy.*  *In process of implementation of onlyoffice for editing scanned documents on the same web page.*  *Creation of APK demo of the application to be able to use it from a cell phone.* |
| Objectives | *Advance OCR by 50% for its subsequent implementation as image processing.*  *Implement OnlyOffice in the project for editing scanned documents.* |
| Methodology | *Traditional Methodology* |
| Evidence of progress | *Login: As evidence a new user will be created, both in web and mobile platform to later log in.*    *Create Folder: As evidence the folder will be created with its respective name.*    *Add file: As evidence, a file will be entered as evidence that the files are being stored.*    *APK: As evidence of integrating these functions in the application, these functions will be shown from a cell phone.* |

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| **2. Work Plan Monitoring** |
| Carefully examine your work plan, focusing especially on the progress and adjustments column. |

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| Work Plan | | | | | | | |
| Competence or units of competence | Activities | Resources | Duration of the activity | Responsible | Observations | Progress status | Setting |
| *Application development with modern frameworks* | *Frontend and backend web and mobile* | *Angular, Ionic, Node.js, ApiRest, SpringBoot, Html and Css* | *1 week* | *Víctor Aponte, Lucas Rodríguez, Cristian Lara* | *The visual part of the project is acceptable and intuitive to the user based on the user's needs.* | *Finished* | *The frontend was modified on 2 occasions* |
| *User authentication management* | *Login* | *Authentication services, database* | *3 weeks* | *Víctor Aponte* | *User successfully logs in and creates account* | *Finished* | *No adjustments have been made* |
| *Folder management in web and mobile applications* | *Folder creation* | *Storage capacity, Ionic, Angular* | *3 weeks* | *Víctor Aponte* | *User successfully creates folders* | *Finished* | *No adjustments have been made* |
| *File management in mobile application* | *Image upload* | *Storage capacity, Ionic* | *4 weeks* | *Lucas Rodríguez.* | *The user uploads files without specific formatting* | *Finished* | *No adjustments have been made* |
| *Software architecture* | *Creating and documenting the BPMN diagram* | *Bizagi Studio* | *1 week* | *Víctor Aponte, Lucas Rodríguez* | *The diagram provides a clear view of the project processes.* | *Finished* | *No adjustments have been made* |
| *BD system analysis* | *Design Entity - Relationship diagram* | *LucidChart* | *1 week* | *Cristian Lara* | *Adjustments to the diagram if database requirements change* | *Finished* | *No adjustments have been made* |
| *Process modeling* | *Perform Model 4 + 1* | *LucidChart* | *1 week* | *Cristian Lara* | *The diagram provides a clear view of the workflow compression and structure.* | *Finished* | *Modification of component diagram* |
| *Relational database implementation* | *Database (PostgreSQL)* | *PostgreSQL* | *2 week* | *Víctor Aponte* | *Creation of a well-functioning project database* | *Finished* | *No adjustments have been made* |
| *Implementation of OCR algorithms* | *OCR* | *Classified dataset, execution environment.* | *1 month* | *Cristian Lara.* | *The difficulties that may arise are that the data model is trained for a similarity between the datasets used, losing compatibility. And in extreme cases, the OCR does not work.* | *In progress* | *No adjustments have been made* |
| *Management of digital productivity tools* | *Configure and manage documents* | *Computer, OnlyOffice Software* | *1 month* | *Víctor Aponte* | *Difficulties with software integration and compatibility* | *Finished* | *No adjustments have been made* |
| *Document scanning and digitization technologies* | *Scanning and digitizing documents* | *Smarthphone, import functions* | *1 week* | *Lucas Rodríguez* | *Problems generating a scan of an image* | *Finished* | *No adjustments have been made* |
| *Application development in APK format* | *Generate APK* | *Android Studio* | *1 week* | *Lucas Rodríguez* | *No observations have been recorded* | *Finished* | *No adjustments have been made* |

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| **3. Adjustments from monitoring** |
| Go deeper into the observations of your work plan. Analyze the planned activities and point out which aspects facilitated or hindered the implementation of the plan. Discuss how you addressed and/or will address the obstacles. Finally, note any adjustments you made to the work plan based on this analysis. |

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| Factors that have facilitated and/or hindered the development of my work plan: The main factors that have facilitated the development and progress of the project are based on the requirements and the BMPN diagram, this has helped to take a step by step of what should be done as it was detailed from the first week, also the use of available tools and frameworks that contain very useful tools that simplify the work.  The difficult part of the work is to integrate external services to the project as has been the case of OnlyOffice, it has certainly been a challenge since nothing has borne fruit.  It has also been hard to add functionalities and validations as it is with the access paths and credentials. |

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| Adjusted or eliminated activities:   * *Adjustment of the Frontend design of the Web and Mobile application due to its unintuitive design.*   *To date, we have not eliminated activities or processes that we had stipulated, because they are in recent development and have not warranted it. But we are monitoring and considering the elimination of the integration of OnlyOffice, because it is a process in which we have no progress and given the time of the year in which we are, it is delaying us too much, so we are evaluating this possibility.* |

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| Activities that you have not started or are behind schedule:   * *Configure and manage documents: The integration of onlyoffice is the activity that is generating a significant delay in the project, although it does not affect the functionality of the project, it is an optimization that we wanted to integrate to have a more centralized work environment, compatibility and integration problems are delaying the process.* * *Word structure: Not started because it is a continuation of the OCR algorithm, this would be the important part of the project since it is intended to implement the most correct scanning possible.* |