**Human Resource Information System for Department of Interior and Local Government of the Cordillera Administrative Region (DILG-CAR)**

An IT Project Proposal

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**Abstract**

This proposal is about applying the Human Resource Information System (HRIS) to the Human Resource and Records Section (HRRS) under the Finance & Administrative Division (FAD) of the Department of Interior and Local Government Cordillera Administrative Region (DILG-CAR). The HRRS produce many different forms for their employees and most of the process of making the forms are manually input and edit then print it to send to the employee or other department. The HRRS also update the forms given by the employee and from the Department of Budget and Management (DBM).

The methodology is evolutionary-exploratory model to ensure the understanding of forms and processes to be implement their functions in the system and can show to the HRRS the progress of the system to hear their feedback and to be revise the error of the system.

The HRIS will expect to make the work of the HRRS in the PDS, Leave Application and Ledger, Plantilla, Service Record, NOSI, and NOSA to be more organized, fast, and easy the process of the forms that can benefit both employee and HRRS of the DILG-CAR. It makes the process organize because the system will arrange the parts of the form in a proper order and with guidelines for the HRRS and employees. It will be faster to distribute the forms because it will not be manually written when filling-up the form but it will be fully computerized. It will also make the employee get their forms easier because it is in the system ready to print.

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**CHAPTER 2**

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**Chapter 3: Outcomes and Results**

**3.1 Requirements Specification**

The following are the list of functional requirements provided by the system.

|  |  |
| --- | --- |
| Employee | * Will be able to modify their personal information in the PDS * Will be able to view their PDS * Will be able to update their PDS * Will be able to input their leave information * Will be able to file their leave application * Will be able to modify their leave information * Will be able to view their leave information * Will be able to update their leave information * Will be able to view their Service Record |
| HR Admin Officer | * Will be able to generate the PDF file of PDS * Will be able to input data in the Leave Ledger * Will be able to modify leave ledger of employee * Will be able to view the pending and approve leaves * Will be able to view the Leave Ledger of employee * Will be able update the Leave Ledger of employee * Will be able to accept or reject employee’s file leave * Will be able to print Leave Ledger * Will be able to input data in the Service Record * Will be able to modify the Service Record of employee * Will be able to view the Service Record of employee * Will be able update the Service Record of employee * Will be able to print Service Record * Will be able to input data in the Plantilla * Will be able to modify personal information in the Plantilla * Will be able to view the Plantilla * Will be able to update the Plantilla * Will be able to select employee to promote, re-assign, or archive in the Plantilla * Will be able to print Plantilla * Will be able to modify the NOSI of employee * Will be able to view the NOSI of employee * Will be able update the NOSI of employee * Will be able to print the NOSI * Will be able to modify the NOSA of employee * Will be able to view the NOSA of employee * Will be able update the NOSA of employee * Will be able to print the NOSA * Will be able to view the Certificate of Employment of employee * Will be able to print Certificate of Employment of employee * Will be able to search specific employee profile * Will be able to search, view and filter pending employees * Will be able to select a report to generate |
| Regional Director | * Will be able to view the PDS of employee * Will be able to view the Leave Ledger * Will be able to view the Plantilla * Will be able to view pending and approved leaves |

**3.1.2 Non-Functional Requirements**

The following are the list of how the system should be:

* The system must be able to secure privacy of information
* The performance of the system should be fast; there should be no run-time constraints
* The system should provide accurate and precise data
* The system should be easy to operate and learn
* The system should be able to handle error detection and checking of duplicates
* The system should be able to handle capacity of resources and data to be processed

**3.2 System Architecture**

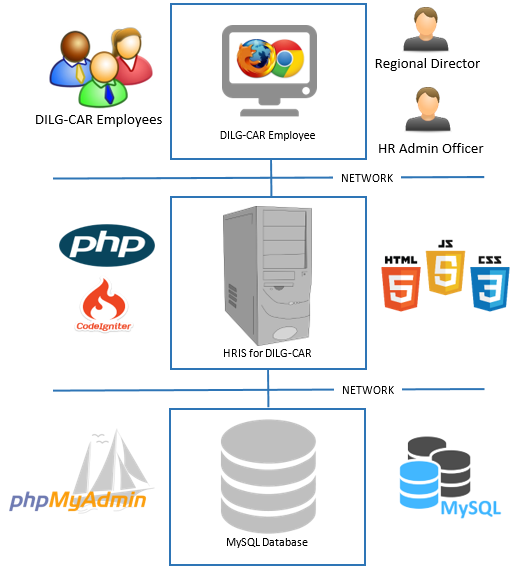


Figure: \_\_\_ System Architecture for HRIS of DILG-CAR

**3.3 Use Case Diagram / Site Map / Function Models**

**3.4 Data Architecture**

**3.4.1 Entity-Relationship Diagram**

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**3.4.2 Data Schema**

**3.5 Prototypes**

**3.5.1 Human Resource Administrative Officer**

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**REFERENCES:**

[1] Human Resources Technology Council (U.S.) and United States Office of Personnel Management. (1997). *Governmentwide human resources information systems study*. Retrieved from

http://www.worldcat.org/title/governmentwide-human-resources-information-systems-study/oclc/38530163&referer=brief\_results

[2] Michael J. Kavanagh and Richard D. Johnson. (2014, January 14). *Human Resource Information Systems: Basics, Applications, and Future Directions (4th. ed.)*. Retrieved from

https://books.google.com.ph/books?id=3TxbDgAAQBAJ&pg=PA1&source=gbs\_toc\_r&cad=2#v=onepage&q&f=false

[3] DILG. (2013). *DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT: Powers & Functions*. Retrieved from<http://www.dilg.gov.ph/page/Powers-Functions/21>

[4] ISO. *International Organization for Standardization 15489-1:2016: Information and documentation -- Records management -- Part 1: Concepts and principles*. Retrieved from <https://www.iso.org/standard/62542.html>

[5] Rouse, M., Gibilisco, S. (2015, January). *use case diagram (UML use case diagram)*. Retrieved from http://whatis.techtarget.com/definition/use-case-diagram