

IMPLEMENTACIÓN DEL SISTEMA DE ADMINISTRACIÓN PARA LA GESTIÓN DE SEGURIDAD Y SALUD EN EL TRABAJO EN LA UNIVERSIDAD TÉCNICA

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Abstract. *This project is based on the "Resolution CD No 333 of the "Dirección del Seguro General de Riesgos del Trabajo", the system that was developed for the Security Unit, Occupational Health and Environment of the "Universidad Técnica del Norte" fulfill with the characteristics of the resolution that was mentioned. The system consists of four modules as well as the audit indicated in the decree and those are Administrative Management. In this system the political arguments of planning and organization of the unit are solved by providing a small repository of the most relevant of the unit. The Technical management in this module is solved the initial measurement of the risk in each job. The Human Resource Management proposes a job profiles, it was seen from the point of view of occupational health and safety procedures and basic operational programs by investigating accidents and incidents, safety inspections, and personal protective equipment. The resolution is being accomplished with the modules mentioned.*

Keywords

Occupational Health, Apex, Occupational Safety.

1. Intro

Security Unit, Occupational Health and Environment of the Universidad Técnica del Norte, is the agency responsible for safety and health at work of the university community, thus complying with the provisions of the regulatory bodies, this unit now carries information in word processors and spreadsheets and it does not have a computer system that permits the administration.

The USSOA to have limited access to information generated by the business risks puts workers in a vulnerable by not taking effective measures possible to improve the

development of human talent position, resulting in employees affected UTN.

2. Materials and Methods

2.1 General Purpose.

Implement the "Administración para la Gestión de Seguridad y Salud en el Trabajo de la Unidad de Seguridad, Salud Ocupacional y Ambiente de la Universidad Técnica del Norte".

2.2 Specific objectives.

- Gathering functional requirements and nonfunctional
- Define the data model, business object model and domain model
- Perform testing and stabilization of the software application
- Use the RUP methodology for application documentation

2.3 Scope.

To develop the Safety Management System and Occupational Health defined the following modules:

Administrative management

Prevent and control failures in the university administration, by controlling responsible.

Technical Management

Prevention and control of technical faults, control and information of possible failures before they materialize.

Human Resource Management

Give safety and health competition in the university community, maximize the commitment and involvement of the university community.

Basic Operating Procedures and Programs

Activities corresponding to the UDEA., Security management and administration.

2.4 System Description and Operation

Internal audit work Risk

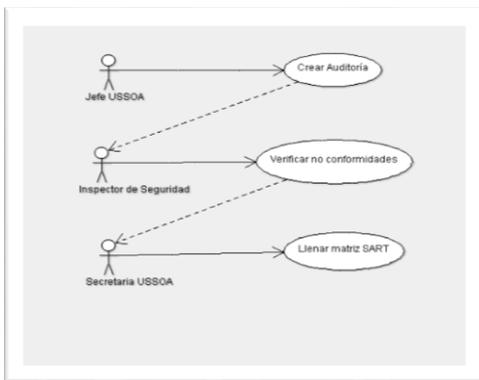


Figure 1. Use Case Audit

Use Case	Description
Internal audit	The head of the internal audit USSOA creates a safety inspector realizes the conformities and non-conformities found to end the secretary fills the matrix SART

Table 1. Use case description Audit workplace hazards

Occupational hazards



Figure 2. Use Case Working Risks

Use Case	Description
Identify risk	The IS identifies a risk
Reviewing risk	The chief US revises risk identified

Measuring identified risk	The SI measures the risk
reviewing risk	The chief risk measurement USSOA review
risk assessment	The IS evaluates the measured risk
Reviewing risk measurement	The head USSOA revised risk assessment
Risk reports	The secretary USSOA printed reports assessed risks
Schedule risk reduction actions	The head USSOA program actions to reduce the assessed risks
Reports risk reduction actions	The secretary prints reports USSOA actions to reduce risk

Table 2. Description Use Case Occupational Risks

Human Resource Management



Figure 3. Use Case Human Talent

Use Case	Description
Psychophysiological requirements	The occupational physician fills psychophysiological minimum requirements demanded for the job
Identify workplace hazards	The head USSOA identifies risks for each job
Assign EP	The head USSOA EPI assigned for each job you need

Table 3. Description Use Case Talent

Basic Operational Programmes

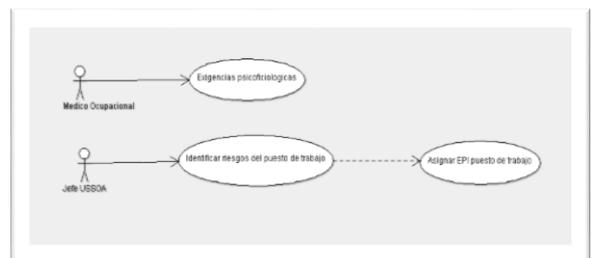


Figure 4. Use Case Basic Operational Programmes

Use Case	Description
Exigencias psicofisiológicas	The occupational physician fills psychophysiological minimum requirements demanded for the job
Identificar riesgos del puesto de trabajo	The head USSOA identifies risks for each job
Asignar EPI	The head USSOA EPI assigned for each job you need

Table 4. Basic use case description Operational Programmes

3. Results

components

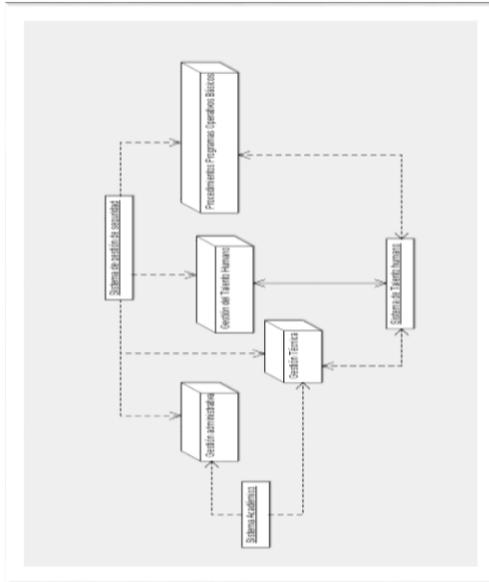


Figure 5. Diagram System Components

The result of the system are four components which were already described above that relates to the "occupational physician", "personnel management" system, since information from employees and workers of the UTN taken.

Each of these components have different work processes that were implemented according to the requirements of the USSOA.

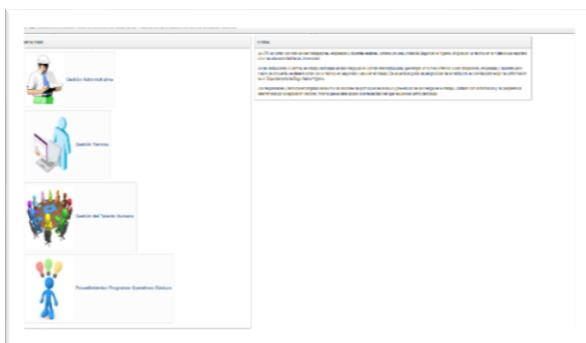


Figure 6. Menu System Components

The menu is the window of interaction between end users and the system which in turn connects with the database of the University consists of tickets to forms and reports.

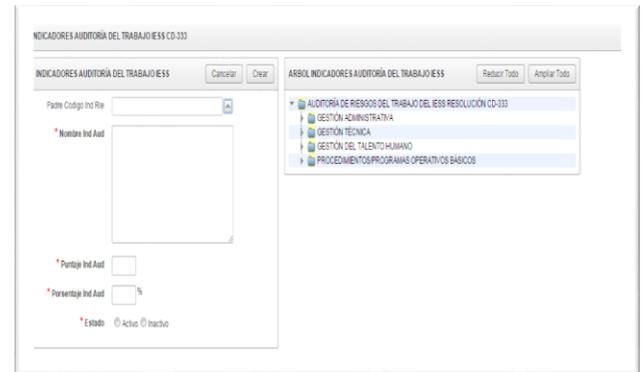


Figure 7. example Form

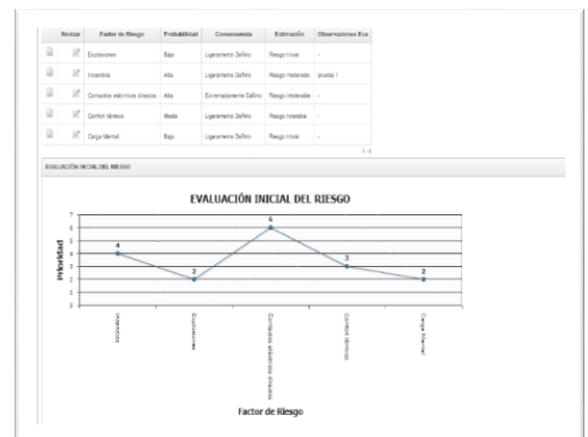


Figura 8. Example Report

4. Conclusions

The system was developed entirely with Oracle APEX to provide users with a friendly interface, allowing the user to his income from the place where you are developing their work. The learning curve of this tool is very fast, and that having a language like PL / SQL. and most developers have worked or know the SQL language is very easy to be a tool that makes use of many wizard developer focuses on business logic, use of templates that allows APEX allows standardized applications in terms of view user.

The database was integrated with existing applications in the UTN to avoid redundancy of information allowing it to be reliable and provide access not only to the USSOA, which also allows this information to safety committees.

The end-user support system (USOA), was of vital importance for its development to have a person who knows the know-how of occupational safety allowed better organize the user interface. Sharing experience in developing their activities considering the basis for system administration of safety and health at work.

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