Expertsystems

Technology, Information Technology

Employee Benefits System System Goals This document is a system specification for the Benefits System and intends to givea description of the functions, constraints and performance. The document will help Suite Spot Hotels by providing a solution on how to manage the employees' benefits. This means that the system specification will act as a basis for verification and validation of the employees' preferences based on their information. This paper provides a description of a service system of a benefits plan and the persons involved. The service system based on the web consists of a case management system - a case management system is essentially a large table of actions, which come from a range of sources. The origins might include: Individuals entering them into a web form Another system spitting out an event stream which is then parsed, filtered and safely kept. It also has a point management system. Here, the system allows for the creation of an unlimited names entries, grants easy access to member preferences, and even enables pre-event chit setup for quick and easy processing at a later time. The other one is the names management system. Here, system contains three subsystems. There are employees, employer and the case management agents. Using tips issued by the employer, employees pick the objects given out by the employers. The system is for assisting the human resource department in a number of ways which include: Supporting the human resource department in managing the high number of the employees' benefits. Reducing the time spent by the human resource department in selecting the best benefits for the employees. Delivering of a secure system which the employees can use to select the best benefits for themselves based on their age, seniority, expertise and size of their family.

The human resource department can use the system to view and record various requests from the employees' preferences in order to process them. The system can also provide a questionnaire such as a graphical user interface where the employees can enter data systematically, as prompted by the system. Scope The system specification document is about the definition and development of the Benefits System project. The document includes the necessities for Suite Spot employees to manage personal data, authentication control and mechanism for authorization as well as managing the employees' benefits. After the creation of the new system, the employees will be required to register with the system and create a new profile. In particular, the Benefits System will take control and manage the employee's database. The use of the system will be based on the different roles of the employees, age, seniority, expertise and personal preferences. This means that employees can manipulate their personal data at any given time. The system also will be made secure by incorporation of the authorization and authentication mechanisms. Users of the system will be required to log into the system using their personal details, most preferably username and password. Methodology The methodology that will be the most appropriate for this particular system is the ES-Builder. The reason is that the ES-builder approach is much applicable where requirements are well understood, for instance, the case in the Benefits System (Senthil and Tapaskar 8019–8029). The design involves structuring the Decision Tree in ES-Tree Builder. Short terms are to be used for features, conclusions, values and later implementation of details. The Export Tree is thereafter transported to . esb format for utilization in ES-Builder. Entering of Rules into

Decision Table of the ES-Builder follows. Combining of all Specification and Identification documentation into one file then follows, and lastly implementation of the system follows (Senthil and Tapaskar 8019–8029). Implementation of internal documentation in the data panel of the ES-builder then follows. Exportation of the entire tree with figures to ES-Builder follows. Have a minimum of 4 people to test the completed Benefits System. Merge report testing into the Specification and Identification Document (Senthil and Tapaskar 8019–8029). Human Factor The human factor is the system stakeholder. These are individuals who are directly involved in the development of the system. Several employees of Suite Spot will make the Benefits System. The personnel involved in the development of the system include the domain expert who has the skills to make use of the past skills and employ them in a given problem; the users (those who will use the expert system and benefit from it, such as employees); the knowledge engineers (those who will design, develop and implement the Benefit System); the programmer who will be involved in programming the system; and the project manager who is responsible for ensuring that the project is in track. The human participants required in the development process include system programmers, the employees of Suite Spot, the managers, and those funding the project. Recommended Expert System Shell An expert system is a system which makes use of human expertise obtained in a computer based information system in order to address and provide solutions to a problem requiring human expertise. Also, an expert system Shell is the system development environment containing the expert system basic component. A shell is related to a prescribed methodology of developing applications. It is

achieved by configuring and instantiating these components (Russel 70). The need to automate the determination of the most appropriate benefit package for employees can be solved by the use of an appropriate expert system. A need to develop an expert system will be the most viable decision to support the needs of solving the issue. The development of an expert system will offer a number of benefits which include storage of permanent information about all the employees. There is a need of an expert system which could help users, such as several employees, in capturing information about their personal preferences and individual information (Senthil and Tapaskar 8019–8029). The knowledge acquisition shell is best suited for this particular case. This will involve a subsystem which will help experts to come up with knowledge bases. The knowledge acquisition shell will free the experts from undertaking repetitive tasks, help in training new employees, improve worker productivity, and provide an option if in a critical condition.

Proof of Concept: Described Production Rules IF-THEN rule This implies that a particular condition is followed by an action. Also, a given situation should be followed by a conclusion for example, maintain unlimited menu items and maintain up to three price levels on all sale items. Use of semantic networks. This represents knowledge by relation between objects and in terms of objects. Use of frames. The rule decomposes knowledge into several modular frames called pieces, which are general record structure. Working memory. This means task-specific data for a given problem in that there is a change in working memory contents in a problem situation. The ability to create a whole complete new sub-system in about 5 minutes from an existing system is an advantage of the system. Development risks of the

system. The risks in the development of this expert system cover the whole development process from users to programmers. There is a risk involved in the acquisition of knowledge. This emerges as a bottleneck in application of expert system technology (Nidumolu and Subramani 163). The validation of information in the expert system is difficult. Conclusion The proposed Benefits System focuses on improving the management of employees' benefits in Suite Spot Hotels. The system will go significantly further by reducing the work load involved in the human resource department while easing the task of analyzing the best employee benefits. The aspect of the system not only adds value to the selected value option but also gives an individual privilege to specify their preferences at will. Complete system integration is instrumental in the successful operations performed by the Benefits System. Expert systems are designend using the model/skeleton of the point of sale system, and this greatly helps in maximizing efficiency. A major advantage of such a management system is the capability to make alterations in the system without having to reboot the system for these changes to be effected. Basically, the system will assist employees and the HR department in timely access to information regarding employee benefits and this will facilitate efficient management of time and man hours. Generally, the business will benefit immensely from JIT delivery of services, hence a good reputation in the industry. Advances in technology and easier use of the system will drive more employees to make use of the system, and this has implications on the long-term future of the system. Works Cited Nidumolu, Sarma, and Mani Subramani. " The Matrix Of Control: Combining Process And Structure Approaches To Managing Software Development."

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