Systems development plan for bead bar

The Bead Bar is a company that allows customers to create their own jewelry by combining beads, wires and strings. It was started in the year 1988 and right now has already expanded into a big company with five franchises on different states. Although this is so, the company mainly relies on paper-based forms for transactions, which are generally inefficient, since it is slow and generates a lot of problems such as lost forms, mistakes in writing and very slow processing which results to delay of services. In this regard, the Bead Bar company will benefit into automating its processes.

This would require the development of a systems software that would facilitate in the transactions that are currently done manually. This paper details the steps in the development of a systems software that would accomplish the requirements of the compay. Planning and Feasibility Study Planning is the first and perhaps the most important part of the systems software development life cycle, as it will be the basis for subsequent steps in its development. Inability to achieve a successful plan for the systems software would mean that inefficiency and lack of the needed features.

Generally speaking, the requirements for the systems software is vaguely identified in this phase. It is done by consulting those who will use the system. It is important to have inputs from all the sectors of the company that would be affected by the implementation of the system. As with Bead Bar company, the management has to listen to the concerns of all the employees who will be using the system, and at the same time, limit the features only to those necessary. It is important not to include every functionality of the system that will be recommended by the staff of the company, and instead take only those that are really needed.

A single functionality would mean more lines of code, which takes up more time to write and thus translates to additional cost in terms of maintenance. The Bead Bar company has identified its desire to automate transactions. Also, the people from the management of the company has identified, in simple words, the features that they deem relevant for such a system. Systems Analysis In this phase, the requirements identified in the previous phase are defined further, this time paying attention to them in detail.

Those requirements identified by the people who would be using the system are now identified as functions and operations in the application to be developed. These functionalities are often classified according to the user who will be using the system, and so the needs of end-users are further analyzed. In Bead Bar company, the functionalities are identified according to the position of the user in the company. For example, the President and Owner of the Bead Bar, Meredith, would have the highest priviledges with regards to accessing the system, written according to her needs.

On the other hand, the Vice Presidents for Studios, Franchises, and Bead Bar on Board would have different sets of functionalities, each relevant only to their positions. For example, VP for Studios may need access to available inventory items and sales record, while VP for franchises would manage the data crucial to be shared to the franchisees. Systems Design When the requirements of the system had already been identified completely, it is time to design the system. In this phase, the desired features and operations are described in detail.

This will include everything that has to be considered in the creation of the system including business rules, entity-relationship diagrams, process diagrams, pseudocodes, screen layouts, and other documentations. Entity-relationship diagrams or ERDs are used to present a graphical representation of the relationships of the entities or the users of the system. This would later help in the design of the database as it identifies the required primary and foreign keys for the tables. Example of entities that may participate in the Bead Bar systems software would be a Customer, a Franchisee, and the management people.

Each of these entities also has a unique set of functionalities and privileges when accessing the system. Process diagrams, or what are sometimes called Data Flow Diagrams are used to visiually present the flow and transformation of information in the system. It details the processes and their corresponding sub-processes with regards to how it transforms the data inputs, and what data each of these processes outputs. Pseudocodes or algorithms will also be generated here, and these will act like a guide when the actual coding of the system is taking place.

On the other hand, the screen layouts would present the initial designs for the graphical user interface of the system to give an overview of how the finished product would look like and where the important parts will be located. Additional documentations may also be needed. This could include data dictionaries, especially when the systems software needs a database, as in the case of the Bead Bar company. This will list down the fields of the tables in the database, including the primary keys, default values, and description for each field.