

CHAPTER 7 : EVALUATION

7.1 Evaluation

The success of any system depends on its acceptance by the users. Therefore, carrying out a user evaluation is one of the crucial parts of the project to decide whether the Travel Management System is successful or not.

The evaluation was carried out with the intention of reviewing problem and approach undertaken by the system developer. It was also evaluated on the view of developer and the client, Marakanda Admin department.

The system was evaluated under several categories. Some of them are:

- Ease of use

This is to identify how easy it is to use the system along with the user-friendly interfaces the system provides. It is difficult to quantify and it may depend on the user's previous computer experience. This also evaluates how well the developer adopted new interface techniques for project development. It can be realized, feedback from actual users and my colleague employees who are used the system.

- Performance

The performance would be one of the critical factors to be evaluated in any system. This is to see how fast a given task can be accomplished within a short period of time. Users should be able to operate and expect results with minimal response time. This response time effect can be achieved by using computers with faster processors and large memory capacity especially for the machine it resides the JBoss Application server. It is required to have a high configuration machine for the database server as well. At this point, it is necessary to measure system performance with minimum hardware specified at the initial stage of the project. With the given hardware specification in Appendix F, average time for transaction is approximately 30 seconds.

- Accuracy of the Results

It is important to evaluate the accuracy of the results produced by the system for the real use of it. There are several processors such as calculation for payment, process for payroll are included within the system. These processors make huge impact on the final results such as the traveler gets his final payment according to this. Due to a single error in the system there might be a chance of pay additional amount to traveler or fewer amounts to traveler, which cause major impact on those travelers and the company itself. Testing with actual data, and the calculation coming from the system is tale with manual calculation done by administration department.

- Approach to Software Tools

J2EE architecture, which has introduced by the Sun Micro Systems with the assistance of the Java programming language, is most suitable to develop real time projects, where performance and accuracy are the critical factors. Since product needs to be delivered in a very limited time period software familiarity and rapid development capability were also considered.

- Approach to Open Source Software Environment

It is intended to implement the system in an Open Source Development Environment. Due to this reason it is required to run the system in many different open source application server platforms and different open source database engines. Due to the architecture provided by the J2EE components, this task has become more convenient where the components are very easily distributed between different platforms and different database engines.

7.1.1 Results of the project

The results were analyzed considering both the positive and the negative. Reasons for failures were also analyzed to find solutions for them.

7.1.2 Achievements of the System

As the final achievement of the system, it is able to manage travel activities successfully. The client is satisfied with the available functionalities.

One of the main satisfactions of the client is usage of the calculation independently without interacting with the manual calculation. It does not require major installation effort since it is a web-based system. So they are independent in the aspect of maintaining it as well.

The user is comfortable with the user interfaces provided by the system. Specially, the mechanisms that were used to avoid entering of invalid data, and to avoid performing invalid actions. Also the appearance of the screens and colors used are acceptable by the users and the administrators.

The major problem, in the case of data entry, that the users were faced during the manual system was to keep track of records and files for the application submitted by the traveler for reimbursement. This task was totally avoided by the system since the facility is given to enter such application electronically by the traveler via the Internet.

The reports they required are made easier and fast. So the user feels more free and accurate on providing timely analysis of system outputs for higher administration without any hesitation.

7.2 Overall appraisal of the project

Initially, evaluation of current system was carried out. The manual system was studied extensively in different point of views. Examining manual documents, applications filled by the traveler, reports required are some area that considered.

Following the above, the project requirement was analyzed considering user and system requirements. This is a very complex stage since all the requirements had to be identified clearly. Also, the drawbacks and constrains had to be considered in detail. Therefore, some of the requirements were ignored at the initial phase.

Next, feasibility study of the functionalities was carried out considering each requirement. Since the system has to address the problems in a generalized manner most of the requirements were considered in a common form.

After completion of requirement analysis, system design was started. The system was designed in a way to satisfy major and complex requirements, yet simple approach. First, the system was designed in more general view. Then, each module of the system was considered in detail. The overall system was designed by splitting up to many parts.

Choosing the technology depending on the specification of the system was undertaken as the next step. After deciding the appropriate development technology, it was the implementation stage of the design.

Master data capturing and travel bill creation part is considered as the first step of implementation. Afterward, each module development had been started phase by phase. Finally, system testing was carried out.

The project scope was covered as in the proposal. Therefore, project had not changed the direction from the original proposal.

The time plan was tough since the project duration was very short. The scope of the project is reasonable as long as the time management was handled successfully.

Sometimes it had been difficult to allocate time for dissertation and other documentation work when development was going on. Therefore, it was done by weekly basis.

7.2.1 Review of the Project Plan

Project plan was developed after considering all the stages of the project. The major obstacle of the project plan was time allocation, since only a short time period was available. The time was allocated considering the scope and weight of the tasks.

7.2.2 Lessons Learnt from the Project

Many lessons were learnt and huge experience was gained while working on this project. Some problems were arisen when converting the design into implementation.

Extensive research and development work had to be carried out. Better solutions were found for some technical problems. Many practical solutions were discovered specially for new component in J2EE technology. Knowledge of some theories was practically applied.

During the implementation stage, gathered a sound knowledge of J2EE framework and how to implement a web base system under MVC model. I received an experience of implementing a product in its entire life cycle, starting from the initial stages until the finishing using the J2EE technology.

A practical approach to project management was gained. The importance of project management was thoroughly learnt. It is clearly visible that the delay of one item in the project plan would delay the whole project. It is a main reason for deviation from project deadline. If an unexpected delay occurs due to unavoidable circumstance, it has to be managed properly while achieving the project goals.

The project helped to understand the stages of a project, and managing those stages effectively to achieve a target.



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7.3 Summary

Project evaluation is considered in developer's and client's point of view. Project achievements and failures are discussed giving reasons and solutions for failures. Critical appraisal is done covering all the stages of project. Also, the lessons that learn from project are presented. Finally, improvements and suggestions for the project are explained.