WORK PLAN

Today’s need is to inspect how the people use modern technological means in deep root level organization like urban cooperative finance sector. On the basis of various questionnaires, direct interviews with bank management, bank officers, employees, vendors, businessmen, industrialist, agricultural people, labor auditors etc. After receiving the relevant data & information to prepare a model base study by applying software engineering’s standard methods. Atomization system is implemented in the co-operative financial sector since long time back. Now this is the time to take review of applied technology. It is necessary to analysis the existing system and to prepare performance model by using software engineering techniques. We have proposed the software development life cycle phases to keep as a role model for this research study.

4.1 The selection of a suitable model is based on the following characteristics.

i) Requirement

ii) Development team

iii) Users

iv) Project type and associated risk

Characteristics of Requirements

Requirements are very important for the selection of an appropriate model. There are number of situations and problems during requirements capturing and analysis [28].

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Waterfall</th>
<th>Prototype</th>
<th>Iterative</th>
<th>Evolutionary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are requirements easily understandable and defined</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Do we Change requirements quite often</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Can we define requirements early in the cycle</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
The main strength of the Waterfall model is its simplicity. The model is very useful when project can actually be divided into watertight compartments. But very few software projects can be divided thus [48].

4.2 Work Procedure Model With Reference To Software Development Life Cycle (SDLC)

The model involves the following phases -

- Feasibility Study
- Requirement Analysis and Specifications
- Design
- Coding and Unit Testing
- Integration and System Testing
- Maintenance

**Feasibility study**: The main aim of the feasibility study is to find out exactly whether the developing product is technically and financially feasible. It also involves problem analysis and collection of relevant data which would be the foundation of the system. It is just like an abstract definition of the problem and formulation of the different solution strategies.

**Feasibility Phase applied to Study** -

⇒ The above phase will be paradigm for the selection of subject. To check the availability of concerned information. To refer the different types of literature and to prepare abstract definition of the subject.

**Requirement Analysis and Specifications**: The objective of this phase is to understand exact requirement of the customer. Careful analysis on requirement and document it properly. Project objectives should be clear in this phase. The goal of this phase is to collect all data and
information in perspective understating the customer requirement. User requirements should be properly organized and documented in Software Requirement Specification (SRS) document.

**Applied to Study -**

- Up to this phase the subject area will be finalized. To collect all relevant data, information and interviews. To get filled questionnaires with the concern people. To refer various relevant journals, magazines, literature, books etc. in view of research study.

**Project planning**

Project planning gets very importance during the project work once it is found to be feasible. Software project managers undertake the project planning which contains effort, cost and project duration estimation. The other parameters are tentative risk identification, analysis, project scheduling and staff organizations, staffing plans etc.

- In this phase to decide planning, scheduling and risk identification of the study work. This is helpful for reducing developmental effort and time to complete task.

  Measurement enables managers and practitioners to improve the software process. Assist in the planning, tracking and control of software project and assess the quality of the product (software) that is produced. Measures of specific attributes of the process, project and product are used to compute software metrics. These metrics can be analyzed to provide indicators that guide management and technical actions.

**Project Metrics**

Unlike software process metrics that are used for strategic purposes, software project metrics are tactical. That is, project metrics and the indicators derived from them are used by a project manager and a software team to adapt project workflow and technical activities. The first application of project metrics on most software projects occurs during estimations. Metrics
collected from past projects are used as a basis from which effort and time estimates are made for current software work [44].

4.3 Research View aspect

While carrying out the external field study work, the relevant information from available resources is collected. After collecting this information it is required to study the procedure by using various methodologies, techniques to achieve the significant outcome.

Established system parameters in view of software engineering’s techniques. With respect to software metrics concepts, followings parameters described in the chart which are used for tabulation of the object oriented facts.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Category of customer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male, female, Industrialist, Business man, Retirement employee Labor, Former, Agriculturist, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Prepare questionnaires/Interviews/consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metrics</td>
<td>Preferences on questionnaires on the basis priorities of question</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimation of Resource</th>
<th>Contact concern person Employee, Internet website, Journals Annual reports of a banks etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>Travelling for collection of data, Internet surfing, Purchase journals, books &amp; other literatures.</td>
</tr>
<tr>
<td>Effort</td>
<td>Analysis on above data &amp; information; Use statistical methods</td>
</tr>
</tbody>
</table>
**Design:** The main objective of this phase is to transform the requirement specification into a structure which can be suitable for computer programming language. It provides the software architecture from the Software Requirement Specification document. Various types of tools like Data Flow Diagram (DFD), data dictionary, data definition, context diagrams, structure chart etc. are used.

**Applied to Study -**

⇒ While carrying out the research work, the relevant information from available resources will be collected. After collecting this information it is required to study the procedure by using various methodologies, techniques to achieve the significant outcome.
Coding: This phase is also called as implementation phase. The main aim of this phase is software design translate in to source code. Each component of design phase is implemented as a program module. Separately tested of program module is treated as unit testing.

Applied to Study -

⇒ Different Modules of the project will be created. Data collected from questionnaires, service report, audit report, various types of customers and Information from management and employee of the system are analyzed. The modules will make it easy to analyze data for finding out the facts. To remove the ambiguity of different modules of the project. Initial report is getting ready in this phase.

Integration & System testing: In this phase, those modules created in coding phase, should be integrated in planned manner. It includes step by step procedure for integration of modules and tests it stepwise till completion of the system. The system testing should be carried out according to its requirement as specified in the SRS document

Applied to Study -

⇒ In this phase all modules of the system should be checked individually and all module results should be collected. The relevant data by using various techniques and methodologies for getting the conclusions should be tested. The project should be ready in all corners with proper outcome.

Maintenance: Technology is changing rapidly. Due to changing technology and new requirements of the customer, it requires to modify the existing software product so that product should have utility for long duration. In this phase software engineers have the facility to modify the software product after delivered to the customer.
Applied to Study –

⇒ In this phase, the enhancement and limitations of the research study work would be
decided. The fact of future demand, requirement, global competition etc. for
enhancement of the research project will be considered.

PROPOSED CONTENTS OF THE THESIS

Chapter I : INTRODUCTION

Chapter II : SOFTWARE ENGG. TOOLS

Chapter III : EXTERNAL FIELD APPLICATION

Chapter IV : A COMPARATIVE STUDY OF SE AND APPLICATION

Chapter V : TECHNIQUES AND METHODOLOGY

Chapter VI : RESULT AND ANALYSIS

Chapter VI : CONCLUSIONS
5. HYPOTHESIS

Hyp01 =>

Software Engineering techniques not used for external field
Application for research study and to improve the overall performance
Of the system using IT tools.

Hyp02 =>

Software Engineering techniques used for external field
Application for research study and to improve the overall performance of
System using IT tools.
6. METHODOLOGY

We have studied software engineering techniques carefully and it has found that we can use these techniques for studying external field application. We have used these techniques as a reference model for studying other than software product process. This model can be used for other than software product development which can be treated as an external field application in our research study.

The main intention behind this chapter is to focus on research objectives. Visit the various locations of the field applications. To study the various tools to handling complexity. The design steps have been carried out which tools would be suitable for the fulfillment of research objectives. To study the various tools of software engineering subject and assemble the data sheet forms. To Analyze and the check the data sheet form properly. Categorized the data sheet form. To Determine and finalized, test significant techniques and methodology for the external field application.

Different Modules of the project will be created. Data will be collected from questionnaires, service report, audit report, various types of customers and Information from management and employee of the system will be analyzed. The modules will make it easy to analyze data for finding out the facts.

1. To extract techniques of software engineering model as a tool or Methodology for studying external field applications

2. To understand the implemented technologies of Urban Co-operative(Non-Scheduled) Bank

3. Consultation & discussion with concern persons/ authorities

4. By Interviews to collect information’s
5. To prepare Questionnaires

6. Survey method techniques shall be used for research data collections

7. Explanatory and analytical research methods shall be used

8. To analysis the overall performance of the system using IT tools in Urban Co-operative (Non-Scheduled) Bank by using techniques of Software engineering model

⇒ To remove the clutter (confusion), vague in the external field study and to get step by step improvement in the research area and obtaining quality outcome, software metrics techniques will be lucrative as compared to conventional methods. This techniques which can be convenient for keeping it as a role model for obtaining significant outcome from the external field study work. Its proposed way of methodology and discipline can be used for external field study.