

Experiment No: 1

Problem Analysis and Project Planning -Thorough study of the problem - Identify Project scope, Objectives and Infrastructure.

PROBLEM ANALYSIS AND PROJECT PLANNING

The problem statement is the initial starting point for a project. It is basically a one to three page statement that everyone on the project agrees with that describes what will be done at a high level. The problem statement is intended for a broad audience and should be written in nontechnical terms. It helps the non-technical and technical personnel communicate by providing a description of a problem. It doesn't describe the solution to the problem.

The input to requirement engineering is the problem statement prepared by customer. It may give an overview of the existing system along with broad expectations from the new system.

The first phase of requirements engineering begins with requirements elicitation i.e. gathering of information about requirements. Here, requirements are identified with the help of customer and existing system processes. So from here begins the preparation of problem statement. So, basically a problem statement describes what needs to be done without describing how.

IDENTIFY THE SOFTWARE PROJECT :

A project is well-defined task, which is a collection of several operations done in order to achieve a goal

- ▶ **Every project may has a unique and distinct goal.**
- ▶ **Project comes with a start time and end time.**

- ▶ **Project ends when its goal is achieved hence it is a temporary phase in the lifetime of an organization.**
- ▶ **Project needs adequate resources in terms of time, manpower, finance, material and knowledge**

Software project management is essential to incorporate user requirements along with budget and time constraints.

CREATE BUSINESS CASE:

Business case : The Business Case is a reference point before, during, and after a project.

- ▶ Creating the Business Case draws the discussion from “What do we want to build?” to “Why do we want to build it? ” This provides the justification for starting the project.
- ▶ A written and agreed Business Case makes expectations explicit
- ▶ As the project *progresses*, the Business Case becomes the “guiding light”—the beacon toward which everyone knows the project is directed.
- ▶ With a clear Business Case the project's stakeholders can monitor both the project and the project's environment

CREATE BUSINESS CASE:

ONE PAGE BUSINESS CASE TEMPLATE

TITLE / ROLE:

THE PROJECT:

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

THE HISTORY:

In bullet points, describe the current situation.

LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

APPROACH:

List what is needed to complete the project.

BENEFITS:

In bullet points, list the benefits that this project will bring to the organization.

ARRIVE AT A PROBLEM STATEMENT:

- ▶ Project Problem Statement
- ▶ Section 1. Project Description
- ▶ Section 2. Problem Constraints
- ▶ Section 3. Schedule, Resource, and Budget Constraints

Section 1. Project Description:

Describe about your project in full scope.

Section 2. Problem Constraints

- ▶ What is the Purpose and Need for the work?
- ▶ What questions need to be answered?

- ▶ What key issues should be considered?
- ▶ What are the Goals and Objectives of the work?
- ▶ Who is the audience?
- ▶ What types of useable information and tools are available and practical?

Section 3. Schedule, Resource, and Budget Constraints

- ▶ What are the Existing Resources? Are they internal or external?
- ▶ What is the Feasible Budget?
- ▶ What are the time constraints that may dictate delivery of work items?
- ▶ What is the availability and quality of existing data?

