**Batch: A3 Roll No: 16010121051**

**Exp No: 1**

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| --- |
| **Title:** Define the Problem definition and Scope of the mini project. |

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**Objective:**

To understand the process required for defining the problem and scope of the project

**Expected Outcome of Experiment:**

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| --- | --- |
| **Course Outcome** | **After successful completion of the course students should be able to** |
| CO 1 | Understand the requirements for problem definition and scope. |

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**Books/ Journals/ Websites referred:**

**1.**

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**Introduction**:

**Describe the need of this stage in project**

**After referring the sample please furnish the details about your project:**

**Project Title: Library Management System**

**Team Members  :**

1. **Mr X**
2. **Mr y**
3. **Ms Z**

Scenario:

These days most of the libraries are having number of resources such as books, journals, cds, magazines, kindle etc. for the various users such as librarian, administrative staff, faculty and students it is difficult to search a resource check availability of the same.

**Problem Definition**: Difficulty in searching, issuing, returning buying resources for library

**Objective:**

To provide a system supporting features for searching, issuing, returning buying resources for library

**Scope:**

* Only software is to be developed for the purpose mentioned above.
* Give training to various users.
* Maintain the system and fix the bugs and upgrade upto ONE year after commissioning
* Procurement of hardware for using the system is **OUT OF SCOPE** of this project.

**Title of Mini Project: Online Complier Platform**

**Team Members:**

**1. Pargat Singh - 16010121045**

**2. Vishrut Deshmukh – 16010121043**

**3. Meet Gala - 16010121051**

**Scenario in the real world for which you are proposing a solution.**

During our second semester examinations we faced issues while using the given online compiler hosted on LMS platform. It lacked many features like syntax highlighting, multiple language support and error debugging and had a overall slow performance during our examinations. Hence we propose a better and a more feature rich and user friendly platform.

**Problem Definition:** The aim is to design and develop a comprehensive online coding platform that provides an intuitive and user-friendly interface for users to write, compile and run code in multiple programming languages. The platform should also offer advanced features such as a terminal screen for receiving errors, file management system for users to save and access their work, and integration with version control systems to track changes and collaborate on projects.

**Scope of the project:**

Multi-language support: The platform should support multiple programming languages, including languages such as Java, Python, C++, and C.

Code editor: The platform should provide a user-friendly and intuitive code editor that supports syntax highlighting, code completion, and code formatting.

Compile and run: The platform should allow users to compile and run their code directly within the platform, without the need for additional software or tools.

Terminal screen: The platform should provide a terminal screen that displays errors and debugging information.

File management: The platform should offer a file management system that allows users to save and access their code and projects.

Version control: The platform should support integration with version control systems such as Github.

Learning resources: The platform should offer structured learning courses that guide users from beginner to advanced programming concepts, presented in an engaging format that includes interactive lessons and quizzes.

Performance and reliability: The platform should be optimized for performance, with quick response times and reliable uptime, to ensure that users can work on their projects without interruption.

Accessibility: The platform should be accessible from a range of devices, including desktop and mobile devices, and be designed to be user-friendly for users with different abilities and needs.

**Post Lab Activities (with reference to your tool):**

1. Why are you needed to define a problem?

A problem statement is important to a process improvement project because it helps clearly identify the goals of the project and outline the scope of a project. It also helps guide the activities and decisions of the people who are working on the project. The problem statement can help a business or organization gain support and buy-in for a process improvement project.