## **Project Initialization and Planning Phase**

Date	8th July 2024
Team ID	SWTID1720074725
Project Name	CodeXchange: An Al-Powered Code Translator Tool

## **Problem Statement**

In the ever-evolving field of software development, developers frequently encounter scenarios where they need to transition their codebases from one programming language to another. This necessity can arise due to various factors such as platform compatibility, performance optimization, team expertise, or even the introduction of new technologies. However, the manual process of translating code is often labour-intensive, time-consuming, and prone to errors. These challenges can lead to significant delays in project timelines and increased development costs. Given these challenges, there is a clear need for an automated solution that can accurately and efficiently translate code between different programming languages. Such a tool would greatly benefit developers.