Assignment: Lecture 1 **By:** Cesar Mamani

CACM Explains the use of patterns and concepts, for example why it is good to reject a pattern that has been tested and is successful, it will reduce development time, in addition to the fact that patterns are recurring solutions to small problems, which are interrelated among themselves. to form a language. Which are taken as a source of study, which help us to think and understand it, which will be part of the creation of a future manual for engineers. In addition, it explains about patterns and pattern languages which are like communication tools, which help programmers understand the code quickly. And since the use of abstractions is common in patterns and their efficiency, For example, experienced developers see code by abstractions and not in terms of elements, a SOLID (Dependency Inversion) principle applies here.

Another important point that I saw is the values for writing a pattern documentation. If a pattern is old, try that it has been tested and has no errors and many times it is better than a new pattern that has not been tested much and could have errors, besides that we He comments that when programmers do not know how to communicate the project correctly (Documentation, Coding) this project tends to fail. Therefore, to share knowledge of experiences with patterns and improvements (new ideas), it is good to evaluate them in a group and document them. He also points out that the purpose of the patterns is not a rigid skeleton, which you cannot edit or limit the creativity of the developers. On the contrary, it is to help the development and give successful ideas of patterns that were tested in other projects, which saves us time.

It also tells us about the new trend that is now focusing on design patterns in the realm of parallelism, concurrent programming, and more. In addition, as many developers learn and understand more than visual-didactic things, while others in an explanatory and direct way, explaining the documentation formats. They also explain about future generations of OO frameworks that will have patterns incorporated, which will be used to document the form-content of the framework and how patterns will be used many times to interact between abstractions, which gives way to architectures for example. the connection between domain and UI