**Importance of Requirement Design and Analysis**

Requirement is the basis of all software development projects. The level of accuracy, consistency, and completeness of the requirements in critical for any successful software project. Requirements phase can be viewed as the most important step in the software development lifecycle.

Incomplete and inconsistent requirements can easily lead to not developing the software product expected by the stakeholders and also result in loss of time, cost, efforts, and other valuable resources.

That is why it is important to analyze the requirements of any software project before beginning the development to check for any conflicts and incompleteness in the software requirements.

**Importance of UML Diagrams**

UML diagrams are a great way to represent the software product in the simplest way as possible. Most of the stakeholders are non-technical people who can be easily confused and have a hard time understanding the technical side of the software product. Therefore, it is important that we represent the software product in such a way so that we can verify from the stakeholders whether the software product understood by the software development team is the same exact as the one that the stakeholders need.

**Importance of Object-Oriented Programing with Interfaces and Polymorphism:**

Modelling your software product in terms of OOP makes it easier understand the system and manipulate data objects. The use of Interface makes it easier to modify the software product if any other requirements are to be added/modified in the future.

There are many things that have the same functionality, but the implementation of that functionality is really different from each other. This is where polymorphism comes in handy as it allows the different implementations of the same functionality.