

UML, nowadays, software projects are the first thing that comes to mind. One of the most important factors to increase the popularity of UML, which has been in use since 1997, is the existence of 13 different species based on any scenario. In addition, codes can be converted directly to UML or UML direct code by some extensions.

UML designs serve as a bridge between client and developer. First of all, it specifies customer requests. The designer visualizes requests with the UML design without going into code. This will make it easier for the developer to encode.

Do UML designs have an end date? Or is it possible to design a UML from beginning project to end?

According to a survey, 52.5% of UML designers stated the end date as the completion date of the design. However, there are no criteria for completion. It is completely up to the person and the developer. 32.8% of the participants emphasized that the date of delivery is the end date.

According to another study, the majority of UML designs have come to an end because of “The Lack of Communication”. The inability to communicate, the problems arising from the complexity of the project as the time progresses in communication with the stakeholders and the project becomes insurmountable. This situation affects not only the UML designs but also the project.

In fact, this research shows that even though UML is a widely used design pattern in the world, it can be interpreted differently by different users.

The problems that arise in UML design are as follows:

- **Scattered Information:** When you start a project, you will see that the business is branching out and getting more complicated. In this respect, seeing the link between the information and joining the associated ones will eliminate clutter.
- **Incomplete Information:** Each project is shaped according to the wishes of the stakeholders as time passes, but if these requests are not stated at the beginning of the project, the project may turn into an unexpected product.
- **Inconsistency:** Each big project is divided into sections and developed by different teams. This situation leads to complexity according to teams' thinking styles and coding styles.

These 3 situations cause more distress than coding in a software project. Because the coding part has world-recognized criteria and rules. It is not possible to go beyond this. However, because UML does not have a specific design criterion, the UML that

a designer designs is not understood by a different designer. However, each UML diagram serves a different purpose. For that purpose, every UML has a small criterion. Despite these criteria, there are deficiencies in the designs. These defects cause the design to be perceived differently by different architects and even different coding of the project. In summary, such defects, deficiencies will be adversely affected by the project and should be tested and prevented at every stage.