Unified Modeling Language (UML)

" The Unified Modeling Language (UML) is a language used in the field of software engineering that represents the components of Object-Oriented Programming concepts. It is the general way to define the whole software architecture or structure.", From this definition we can know the UML can specify the whole system, you can know what the system does and what each component what supposed to do, and make it easy to build a system, The UML help the developers to build the correct software system and make it perfect software system, which leads to save the time for developers and save the money, UML gets a formal model the system and delivered the same information in different ways and at a different level of information, models give a better idea and information to the understanding of the system and be very clear of the system, UML models give an initial idea about the system before execution and implementation, one of the relationships in the UML is a dependency which mean there are two elements and if you change on one of them the another will affect and this relationship called by dependency, another relationship is Association which is described how the element related to each other in UML diagrams and a set of associations between the elements in a system. and there is aggregation or gathering which mean the relationship structure between the whole and its parts that will represents by aggregation, and there are relationship called generalization you have an object more generalized (parent) and another object more specialized (child)the child has specific information than the parent for the same subject and the child will be a substitution for parent, in UML have an Extensibility mechanism relationship which means you can create or represent extra behavior in the system and this lead to the power of the language, there are many UML diagrams to get different viewpoints of the system, and these get what is the plan of the software, we can know about the requirement are explained in the use states, the design provide captures the location of problem and the location of solution, the process models are available to know the systems processes, can see the implementation view locations and the visibility of the implementation or execution of the system, the share of the deployment models view in the system for sharing material , and this are many viewpoint of the models systems, The UML has precise specification for the models and that the point of UML , UML contains all requirement for the models, and UML has complete understanding and no multiple interpreting for the models and which make it easy to apply the models in programing language and will be successful.