## Computation Independent Model

Computation independent model captures all the requirements of the system being computerized, this includes functional, non-functional, business rules, user and system requirements, (Singh & Sood, 2010). The computation model is usually designed using various UML diagrams, the Computation independent model offers the highest level of abstractions as defined by the object management group, this model focuses on the domain rather than the structure of the system and are usually designed in a language that is familiar to the engineer (Garrido & Noguera, 2007). The creation of the computation model can be done using UML diagrams like Use cases and sequence diagrams. The creation of the Computation independent model starts with the transition from the original domain model to the computation models such as use case diagrams and sequence diagrams.

### The process goes as follows.

1. Step one involves the identification of the business users (Actors) and their goals, actors are external entities that establish business goals, identification of goals means identifying the set functional features required for the business goals to be met (Osis, 2007).
2. The next step involves the identification and refinement of the system’s use cases, this involves discovering functional feature specified by the requirements that are needing to achieve the business goals (Osis, 2007).
3. The last step in the creation of a computation model is Use case prioritizing, this means choosing the most important use cases (Osis, 2007).

Computation independent models are an important part of the model-driven architecture because it is the input to the more specific Platform Independent Model (Singh & Sood, 2010). The model also addresses the various factors that lead to software failure such as misunderstanding in the interpretation of the requirements, unstable requirements that lead to additional requirements being added and, contradictory objectives by different developers (Singh & Sood, 2010).