# Implementation Schema

In order to represent the ATM machine, we must use three different UML diagrams which is Class Diagram, Sequence diagram and Use case diagram.

1. **Use Case Diagram**: for the system.

In UML exist a special diagram used during ‘Analysis Phase’ and called ***USE CASE***diagram, used to understand;

* + *What actions the system should perform*
  + *Collect information from the customer*

So, they describe services provided by the system. This diagram is based on the following elements:

* ***System****:* the project to implement. It is represented using a rectangle.
* ***Actor****:* users that will interact with the System. Usually it is represented with a stick figure with a <name> beneath it.



* ***Use Case****:* action executed by the System and used by Actors to interact with the System. It represents a **functionality (or service)** provided by the system under design and exchanged with one or more actors.



1. **Class Diagram**: for the system.

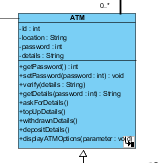
As UML is a description language, it represents a ‘class’ using an ad-hoc diagram containing all the necessary information to describe it in a complete way. A class is represented with:

*A Rectangle divided into* ***three*** *sections*

* *Top section: contains class Name*

|  |
| --- |
| ClassName |
| attributes |
| methods |

* *Mid-section: class Attributes*
* *Bottom section: class Methods*



1. **Sequence Diagram** for ATM machine.

They are diagrams describing the dynamic behavior of an object-oriented system by means of messages exchanged among a set of objects to accomplish a purpose (implement a functionality) Sequence Diagrams capture the **order** of interaction between parts of the system, how these interactions are triggered and the order they occur

They are based on the following elements:

1. Participants (Objects)
2. Messages
3. Lifetime (Time)