

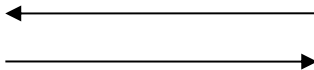
4-1) Data Flow Diagrams (DFD) Description:

A graphical tool used to describe and analyze the movement of data through a system manual or automated including the process, stores of data, and delays in the system. Data Flow Diagrams are the central tool and the basis from which other components are developed. The transformation of data from input to output, through processes, may be described logically and independently of the physical components associated with the system. The DFD is also known as a data flow graph or a bubble chart.

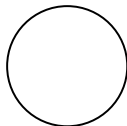
DFD's are the model of the proposed system. They clearly should show the requirements on which the new system should be built. Later during design activity this is taken as the basis for drawing the system's structure charts.

The Basic Notation used to create a DFD's are as follows:

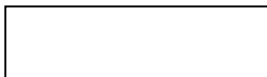
1. Data flow: Data move in a specific direction from an origin to a destination.



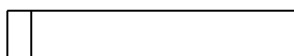
2. Process: People, procedures, or devices that use or produce (Transform) Data. The physical component is not identified.



3. Source: External sources or destination of data, which may be People, programs, organizations or other entities.



4. Data Store: Here data are stored or referenced by a process in the System.



1. Use case Description:

In software engineering, a use case diagram in the Unified Modelling language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases.

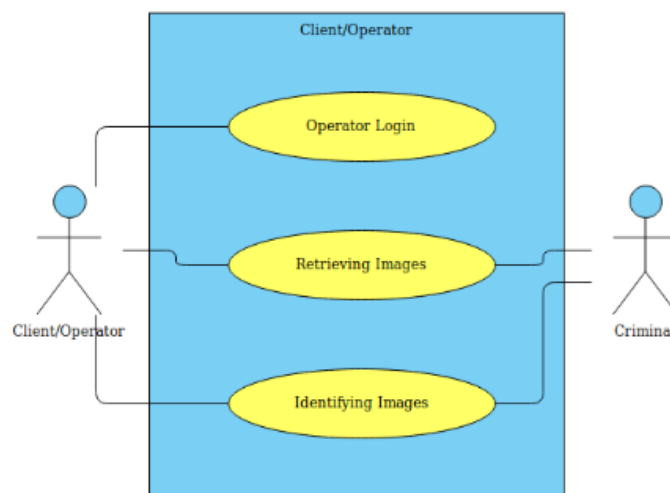
The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

Use Case diagrams are formally included in two modelling languages defined by the OMG. Both the UML and SysML standards define a graphical notation for modelling use cases with diagrams. One complaint about the standards has been that they do not define a format for describing these use cases. Generally, both graphical notation and descriptions are important as they document the use case, showing the purpose for which an actor uses a system.

The use case diagram shows the position or context of the use case among other use cases. As an organizing mechanism, a set of consistent, coherent use cases promotes a useful picture of system behavior, a common understanding between the customer/owner/user and the development team.

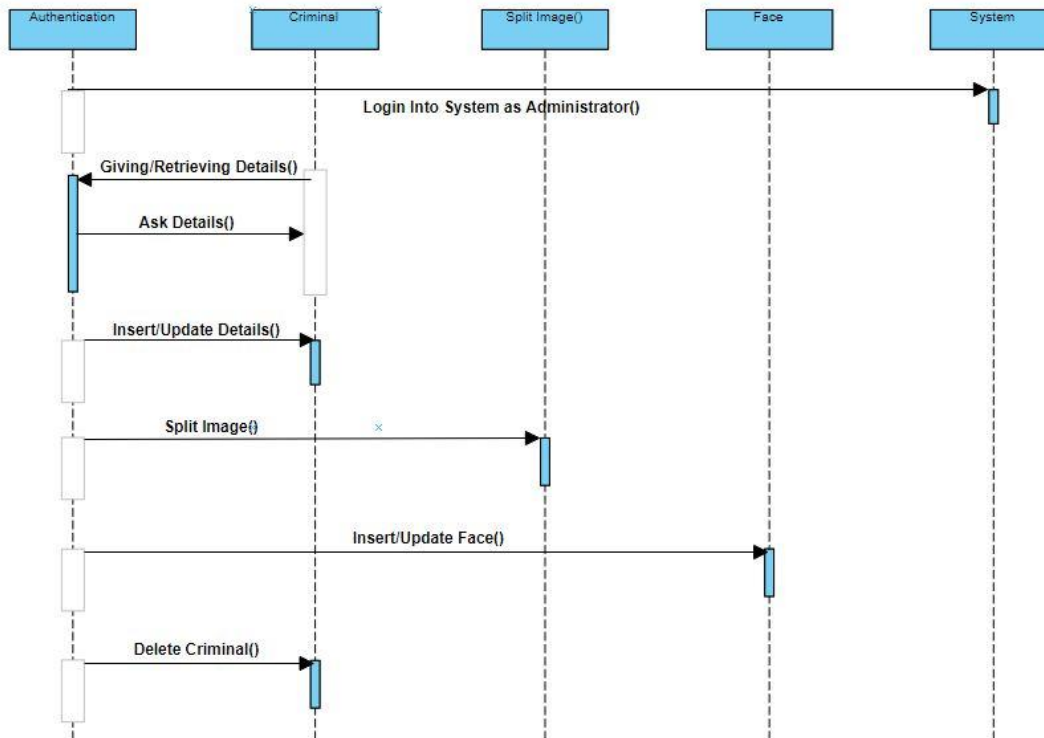
Use-Case Diagrams:

For Operator:

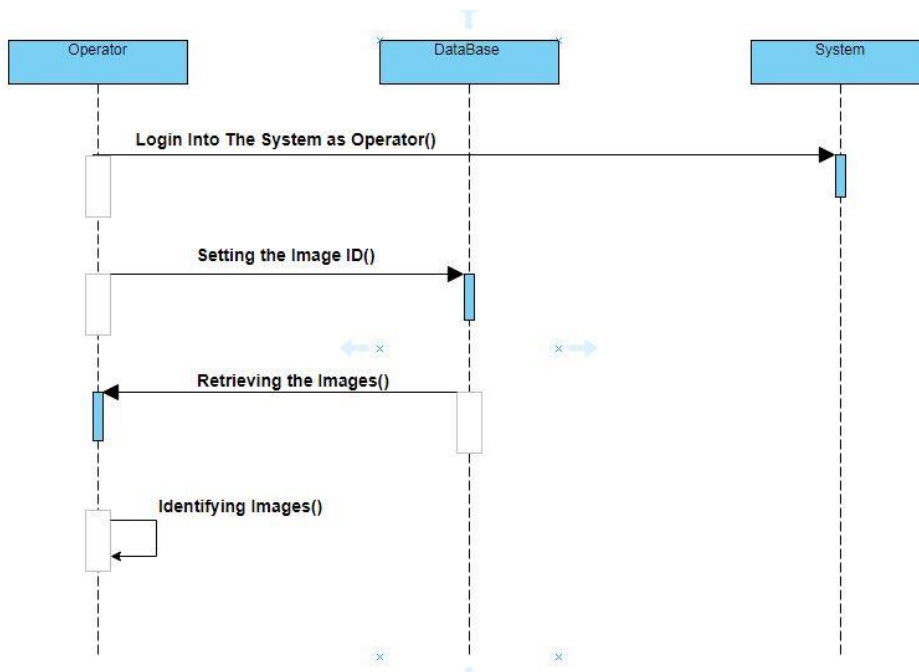


Sequence Diagram:

For Administrator:



For Operator:



2. Activity Diagram Description:

Activity diagrams are a loosely defined diagram technique for showing workflows of stepwise activities and actions, with support for choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams can be used to describe the business and operational step-by-step workflows of components in a system. In SysML the activity diagram has been extended to indicate flows among steps that convey physical element (e.g., gasoline) or energy (e.g., torque, pressure).

Activity Diagram:

For Operator:

