Design

Introduction:

In gym management system the design of different perspectives plays the significant role to achieve the project. In this project the design parts involve of different pattern of sub division of the parts of system. This includes the structural design that consist of class and data flow diagram. The behavioral design includes activity and sequence diagrams where as database includes data dictionary and ER-diagram. The architecture design has user interface and prototyping.

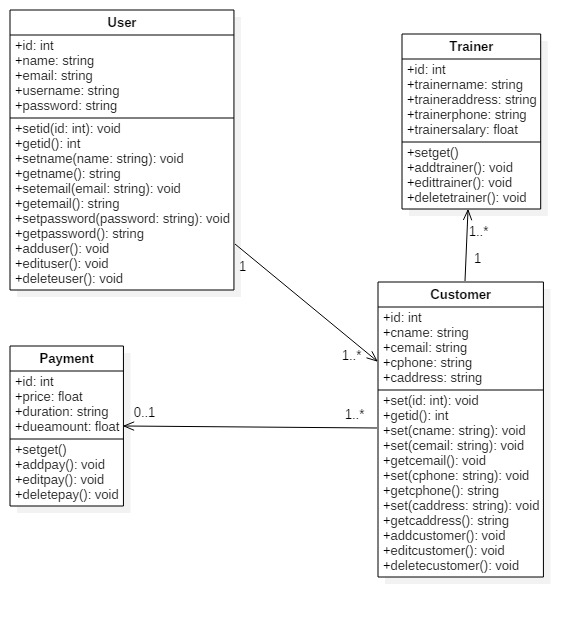
For this project the requirement od design are sketch through the help of star UML. This star UML helps to create the diagram makes it easy to sketch. Unified modeling language (UML) is used to build software and relative of any software system.

Structural design:

The structural design pattern basically shows the relationship between entities. Shows the object and classes how they are interrelated to each other combination of large complexity into easy design. In this project this structural design makes the project more complex into simple easy understanding form to know how the system going to implement. (tomar, 2012)

1. Class diagram (final):

The class diagram shows the relationship between each classes and their class name,attribute and methods. In this project the relationsip are shown through the simple association that is solid line.



screen : final class diagram

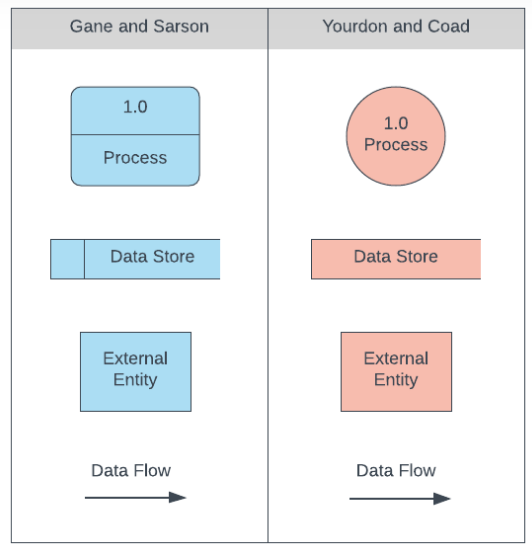
Important:

* It generally shows static diagram of any system.
* Better to develop for new or another member.
* Shows relationship between classes.

1. Data flow diagram:

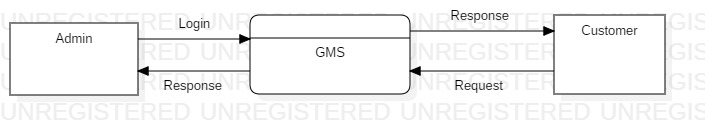
The data flow diagram shows the flow of information through the system and process. The different notation and symbols are used to identify the flow of data. They describe the entity and the relational flow. The flow makes the better understanding of system and improvement further on future development.

The data flow diagram are two types physical and logical. But the both diagrams shows same information flow.

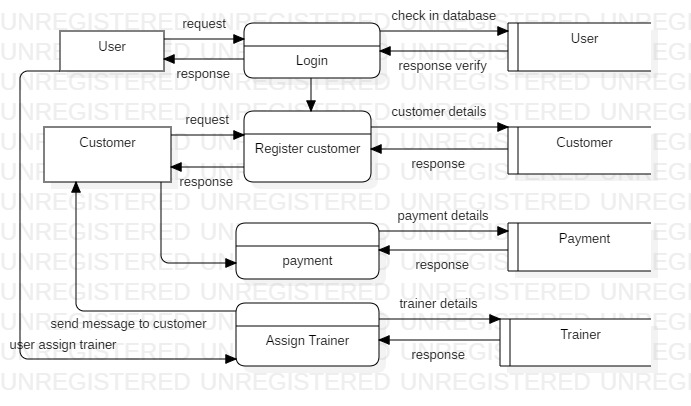


The above diagram in which the different notation has different meanings:

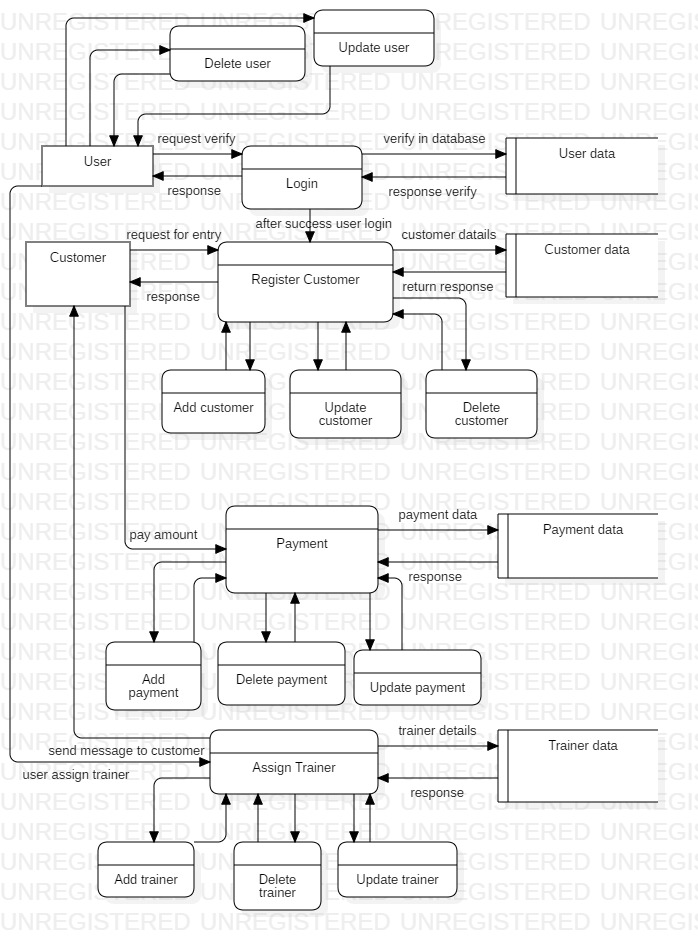
* Process: this known as process in which it known as input and output on DFD. Actually, transport incoming data to outgoing data.
* Data store: this stores the data that has been already processed. Input process are stored in the data and output is retrieved from database.
* External entity: they are the actor, entity of the system. They are initial beginning before the processed.
* Data flow: identify the flow from entity to the process and process to the database. They can be reserve back.



screen : DFD level 0



screen : DFD level 1



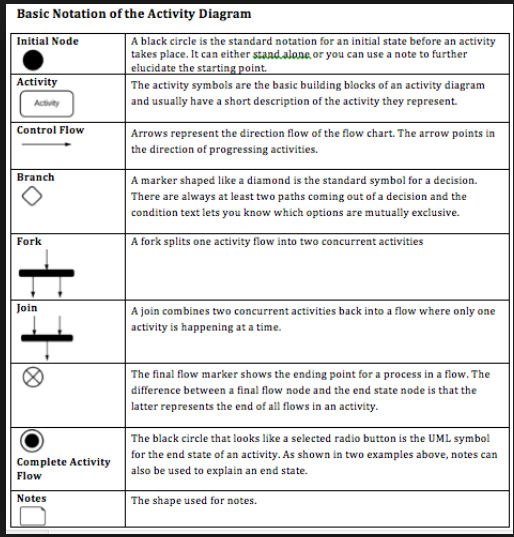
screen : DFD level 2

Behavioral design:

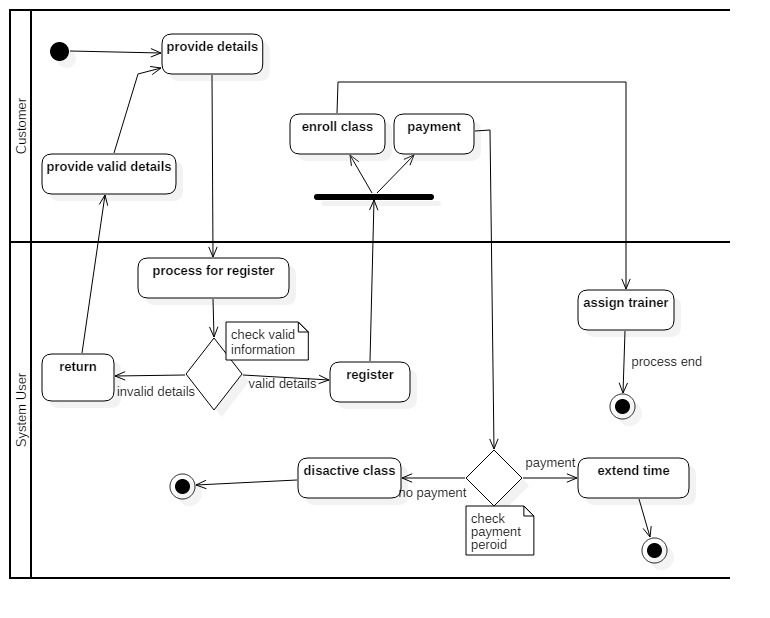
The behavioral design represents the activity and sequence diagrams. This diagram helps to identify the activities of user and admin where as the sequence show the flow of order of data.

Activity diagram:

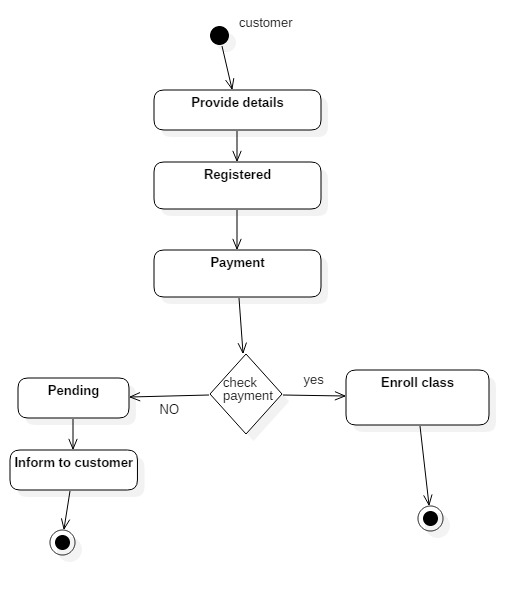
The activity diagram actually performs or shows the flow of activity from anther activity. This represent dynamic aspect of system. This diagram is not used for the visual capturing but also used for forward and reserve engineering. (Warren lynch, n.d.)



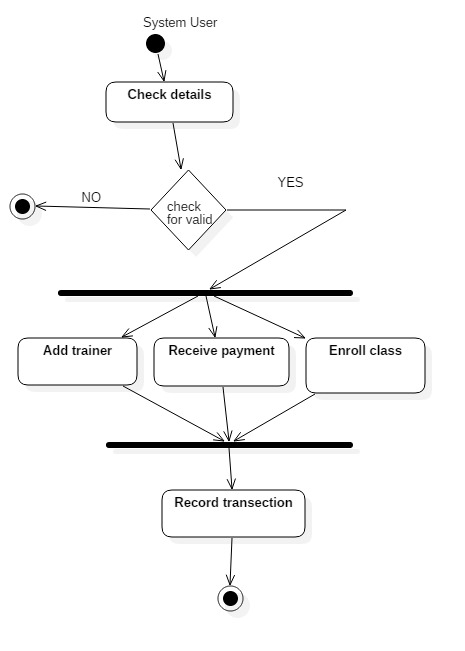
The some of the notation that are sown in above figure. This notation can have meaning with their used. This used combined formed the activity with their meaning.



screen : Activity diagram



screen : Activity diagram of customer



screen : Activity diagram of system user

Importance of activity diagrams:

* Detect order of flow of activity
* Modeling the work by activity
* Easy to model the business requirement
* Understanding of system from high functionality

Sequence diagram:

The diagram helps to identify the each and everything details in this project. It describes the interaction of the different parts of the system. In this project the sequence diagram shows the actual interaction with different entity with each system.

Important of sequence diagram:

* Deletion and creation of object
* Identify the object actions
* Identify the lifeline of entity

Database:

The database shows the data and their relationship to store the procedures. In this project the database includes data dictionary and entity relationship diagram (ER diagram). The ER- diagram is all about relationship between each entity or classes. Data dictionary includes metadata, datatype, data length and many others.