***\*Identifying Domain Classes from the Problem Statements\****

# #**Case** **study:- Cinema Booking System**

## From the given problem statement we can identify the following nouns and noun phrases:

* Software Engineering
* Employees
* Workers
* Cinema Broad Casters (PVR,INOX,CARNIVAL,….)
* System
* Members
* Web application
* Software
* Information
* Passwords
* Movie Research
* Seats
* Server
* Add film
* Delete Film
* Add Screen
* Add Showing
* Cancel Showing
* Collect Tickets
* Date Time
* Movie Duration
* Booking Number
* Cost
* Movie Name
* Data Base
* Transactions
* Cinema Information System
* Cinema Location
* WAN

## Let us put the above into different categories.

### **People**

* Employees
* Members
* Workers

### **Places**

* Seats
* Cinema Location

### **Things**

* System
* WAN
* Server

### **Organizations**

* Cinema Broad Casters (PVR,INOX,CARNIVAL,….)

### **Concepts**

* Software Engineering
* Web application
* Software
* Server
* Data Base
* Cinema Information System

### **Events**

* Transactions
* Add film
* Delete Film
* Add Screen
* Add Showing
* Cancel Showing
* Collect Tickets

The nouns and noun phrases in the problem statement gives us a list of 27 potential classes. However, all of them may not be relevant. For example, 'Seats' is not something related to the Cinema Booking System. And so are 'System', 'Server’. In a similar way, 'Software Engineering', 'Web application', 'Software' doesn't seem to be potential classes in this context. If we filter these entries, we might find that the following set of classes directly relate to the business activities of CBS:

* Employees
* Members
* Collect Tickets
* Cost
* Transactions (of Tickets)
* Booking Number

Although not explicitly mentioned in the problem statement, based on knowledge in related area one may point out few other potential classes:

* Popcorn, Coke, Other Orders in Cinema
* Order Line Item
* Payment
* Distributor

Among the classes listed above, 'Members', ‘Workers’, 'Employees' shares some common characteristics. For instance, everyone has a name, each has got a unique ID in the institution. In fact, 'Workers' and 'Members' are some specialized categories of the class 'Employee'. (This considers a Customer, who buys the tickets is also an "employee".) The above identified conceptual classes pave the way for modelling of design and implementation classes.