Project Assignment No. 1

**Due date: Nov 15 (Friday)**

* Video Rental System

Each group must submit the following artifacts. All artifacts must be written in English or Korean.

1. Use Case Diagram
2. Use cases in Brief Format for all that appear in the above Use Case Diagram.
3. Select one of the most important use cases and write it in Fully-dressed format.
4. System sequence diagrams derived from the selected main success flow of the fully-dressed format use case.
5. All use cases must be written in essential format.

Make sure to include as many User Goal level use cases as possible.

Since the target system is familar one around us, we will give you just a brief problem statements. Each group can safely make any reasonable assumptions that deem necessary. However, they must be explicitly specified as such in your documents.

**Problem Statement**

* Our system should at least be able to do the following functions:
  + Rent video - a rental is allowed only if the customer's age satisfies the video rating constraint.
  + Return video
  + Register new customer
  + Register new video
  + List customers/videos - show the list of all customers (videos) registered
  + Show customer report - show the current status of a given customer. The status includes his/her rental infomation such as rental history not yet cleared, total charge owed, total bonus points accumulated.
  + Clear rental information for a given customer
  + etc.
* Each video's media type is one of VHS, CD, or DVD.
* Each video's rating is designated as one of G, PG-13, or R.
  + G: General, a person of all ages can rent
  + PG-13: a person whose age under 12 cannot rent
  + R: a person whose age under 18 cannot rent
* Each video's price code is classified as children, new release, or regular. However, the price code of a given video can be changed later. For example, a video with new release price code becomes one with regular price code sometime later, either manually or automatically.
* A rent charge will be calculated based on the days that a video is rented and its price code.
* Bonus points will also be calculated based on the days that a video is rented and its price code.