CSCI 467-1   **Assignment #2**   **Fall 2018**
                                             (100 points)

For this assignment, you will identify objects for the Global Entertainment Management (GEM) System and develop an analysis class diagram/model for the system.

Use *Microsoft Word* or any document editor (that you can export to a .pdf file) to type your answers (single spacing.) Name your file using this format: [Course-Assignment #]-[your first initial and last name].doc

Example: CSCI467-**A2**-RMarshall.doc
Indicate "CSCI467" for the course name and "A2" for Individual Assignment #2.
"RMarshall" in the example is the first initial of the student's first name, followed by his/her last name.
Also, please include the following information in your assignment file:
  - Your first name, last name and student id
  - Course number and assignment number
  - Due date and time of the assignment

PART 1. *(60 points)* FOR EACH OF THE FUNCTIONAL REQUIREMENTS LISTED BELOW, PLEASE IDENTIFY THE FOLLOWING COMPONENTS:
  - Use case(s)
  - Boundary object(s)
  - Business object(s)
  - For each business object, indicate all properties/attributes for that object.
  If you find multiple occurrences of the same business object, you do not need to re-list the attributes for that object. Simply indicate the object name, follow by "For attributes, refer to requirement #_." Fill the blank with the requirement number from which the object was first identified and where you listed its attributes.

  Use the following table as a template to show your analysis/answers for this part of the assignment.
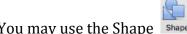
Req. No.	Name of Use Case	Boundary Object(s) (i.e. actors)	Business Object(s) [include attributes for each object]

1. The GEM system must allow authorized event staff, event manager and COO to log into it. The system must authenticate the user name and password, which are the same as the current employee login credentials, which are recorded in the Global Entertainment Human Resources (GEHR) System. The system must record the employee login name, employee name, login date and time (system current date and time). The GEM system must not allow a fourth attempt, if the first three attempts failed. If the employee forgets his/her user name and password, the GEM system must instruct the employee to contact the GEHR department.

2. The GEM system must allow authorized logged in event staff, event manager and COO to logout from the GEM system. The system must record the employee login name, employee name, logout date and time (system current date and time).

3. The GEM system must allow authorized event staff to create a new artist. Each artist is identified by his/her first name, middle initial, last name, gender, complete address (street, city, state, and zip code), contact information (email address and cell phone number), and concert rate per event. An artist may or may not associate with an agent. Once created, the system assigns a unique artist id for the newly created artist.

4. The GEM system must allow authorized event staff to update the information of an existing artist.

5. The GEM system must allow authorized event staff to create a new agent. Each agent is identified by the agent's first name, middle initial, last name, complete address, and contact information. Contact information consists of email, office phone number and cell phone number. In addition, each agent my represent an artist or the entire band; therefore, an agent type may include "for artist", "for band", and "others." Once created, the system assigns a unique agent id for the newly created agent.

6. The GEM system must allow authorized event staff to update the information of an existing agent.

7. The GEM system must allow authorized event staff to create a new band, which consists of up to seven members, including the agent for the band. For each band, we record the band name, band members, member title (which may be: leader, member, agent), the band concert rate per event and any special notes about the band. If we need to contact the band, we first contact their agent. If the agent is not available, we then contact the leader of the band. Therefore, it is important that we can store cell phone numbers of these key people in our system. We send legal paper to their agent's postal and email addresses. We only hire bands that are represented by an agent. Once created, the system assigns a unique band id for the newly created band.

8. The GEM system must allow authorized event staff to update the information of an existing band.

9. The GEM system must allow authorized event staff to create a new vendor. Each vendor has a business name, complete location address, a vendor type, representative name, and representative contact information (phone number and email address). A vendor type may be one of the following: concert hall, equipment, setup, lighting, sound, cleanup, security, foods, operating, advertisement, and others. Once created, the system assigns a unique vendor id for the newly created vendor.

10. The GEM system must allow authorized event staff to update the information of an existing vendor.

11. The GEM system must allow authorized event staff to create a new event. Each event will have a band or artist(s), the complete location (street, city, state, zip code) of the event, the date, start-time, status and seating capacity. The event status tells us when the event has been created, approved, advertised, sold out (reached maximum capacity), cancelled or completed. The even staff must also be able to record special notes for an event. Also, for each event, we assign an event manager (employee of Global Entertainment Inc.), who approves the event and is responsible for running the show. After a new event is created, the GEM assigns a unique event id for the newly created event and sets the event status to "Created" and notifies the assigned manager.

12. The GEM system must allow authorized event staff to update the information of an existing event that has the event date not passed the current system date and has the status of "created."

13. The GEM system must allow the authorized event manager to view and approve an event that had been assigned to him/her. Once approved, the GEM system sets the event status to "Approved" and records the approval date and time. The GEM system also notifies all event staff and the Super Tickets system that the event has been approved.

14. The GEM system must allow the authorized event manager and event staff to generate a detailed report for the assigned event manager. This report must contain information that quickly tells him/her of the event name, location, date, time, and contact information for the band/artist. The report must also contain vendors for the stage setup, equipment, lighting, sound, and any other vendors of his/her choice that are associated with the event.

15. The GEM system must allow the authorized event manager, event staff, and Mr. Marshall to generate a summary report (as needed by a specific date range) listing events by the event status. For each of these statuses/categories, he/she must be able to quickly find on the report for each event, how many tickets have been sold so far in order for him to monitor the expected revenue from ticket sales. Keep in mind that Global Entertainment Inc. pays a 30% commission for every concert event ticket the Super Tickets company sold.

PART 2. *(40 points)* BASED ON YOUR ANALYSIS IN PART 1 AND USING STANDARD UML NOTATION, DEVELOP A BUSINESS CLASS DIAGRAM. MAKE SURE EACH CLASS CONTAINS TWO COMPONENTS: THE CLASS NAME AND ATTRIBUTES FOR THAT CLASS. ALSO, REMEMBER TO INDICATE A RELATIONSHIP (ASSOCIATION, PART-OF OR TYPE-OF) BETWEEN CLASSES.

You may use the Shape tool of *Microsoft Word* to draw your diagram.

WHAT TO SUBMIT FOR GRADING:
Submit your Word or .pdf file on Blackboard by the due date and time.