CSCI 467-1   Global Entertainment Management (GEM) System   Spring 2018
Case Study (Version 1.0)

You are a software engineer working in the Information System Unit of Global Entertainment (GE) Incorporated. GE organizes music concert events in the United States and plans to expand its business operations globally.

Robert Marshall, Chief Operations Officer of GE and his operational staff met with your team to discuss the development of a software application to automate the current business functions. You have been assigned to analyze, design and develop prototypes to be presented to Mr. Marshall and his operational staff.   Your project manager assigned you to lead this project and provided you with the following business documentation. Also, they indicated that there would be additional functions to be added as the project proceeds.

According to Mr. Marshall, our goal is to position our company to be the best concert event organizer in the United States and ultimately globally. In order to prepare our company to be the best competitor, we need your expertise to automate our concert management functions. Currently, we have close to one hundred employees who run our business from creating a concert event to managing all tasks before, during and after the event.   They keep track of all aspects related to organizing concerts from start to finish. They do all of these tasks manually, using phone calls, email and Microsoft Excel spreadsheets! Our business is growing and it is becoming more difficult to quickly find and share information to help us communicate and make sound business decisions.

Therefore, we are willing to invest in developing an application that will automate critical business processes for our event staff and event managers.   Here are some of the critical business functions that we do manually.

We keep track of individual artists and bands. When we have a new artist, we record their name, address, contact information, logo, and concert rate per event. In addition, we record their agent name, address and contact information. Contact information consists of email, office phone number and cell phone number.

For bands, we keep track of the band name and band members. To keep our costs low, we only hire bands that consist of up to seven members, including their agent. For each band, we record the band name, band leader name, band agent name, names of all members, 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 and if he or she is not available, we then contact the band leader. Therefore, it is important that we can store cell phones of these key people in our system. We send legal paper to their agent's address. We only hire bands that are represented by an agent.

In addition to keeping track of individual artists and bands, we also keep track of vendors who provide services to us. These vendors could be a city hall, if we perform at a location that belongs to a city, or a business vendor who provides concert locations. Other vendors may provide setup (stage, sound, lighting) , security, clean crew, etc. In our spreadsheet, we put our vendors into categories: rental, setup, cleanup, security, foods, operating, advertisement, etc.

It is very important that our event staff be able to add and update a concert event. Each concert event will have a band name or artist(s), the location of the event, the date, 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. Also, for each event, we assign our event manager who approves the event and is responsible for running the show. He or she is the main contact for before, during and after the show. Since our business partner, Super Tickets, advertises for all of our concert events, the system must notify the Super Tickets system after our manager approves the event. We also want to be able to record special notes for each event.

Before the event starts, we would like to generate a detailed report for the assigned event manager. This report must contain information that quickly tells him/her the event name, location, date, time, and contact information for the band/artist. He/she also needs to know the stage setup crew, lighting crew, and sound crew.

We make money from selling concert tickets. Currently, we pay Super Tickets to advertise and collect the money from the sale of tickets for our company. We pay them a 30% commission for every ticket they sell. They also advertise for us, which is part of the commission. We want to be able to connect/interface to the Super Tickets information system to get a real time reporting or real time updates on the number of tickets sold and the number of available tickets for a specific concert event.

Please make sure to provide our COO, Mr. Marshall, a summary report (as needed by a specific date range) listing events that are currently advertised, sold out, and cancelled. For each of these categories, he must be able to quickly find on the report how many tickets have been sold so far so that he can monitor the expected revenue from ticket sales.

These are the core business functions we want you to start working on. Before you start building the actual system, we would like to first review with our staff your development of low-fidelity prototypes before developing any medium or high fidelity prototypes of all the screens and reports. To keep the development cost low, our staff and managers are expected to review and give feedback of the prototypes before signing off for the actual coding of the system development.

One last request, we must keep all the data in our system secured. Only authorized employees can access the GEM system. In addition, we want our system to be written in a more robust, preferably an object oriented language since we plan to expand our business operations in the near future.