Community College of Rhode Island
Systems Analysis and Design
COMP-1230

<u>Case Study Project</u>

<u>Assignment #4</u>

From what you have learned so far the collection, organization, and sharing of data needs to be a focus of your solution. Currently data is collected by each detective and ultimately entered in a shared Excel worksheet with little to no organized process to support it. A consistent approach for maintaining the information would certainly make the process more efficient and would also open the opportunity to create a historical record at the unit level. This would not only improve the data maintenance process, it will also create an opportunity for ad hoc searching and reporting.

In the discussion of the project scope, we determined that a realistic goal for your project is to develop a process (or prototype) to collect and store the required information needed for background checks and gaming license processing. Your task is to create a user interface with data entry and search capabilities that will update a centralized database. In addition to addressing the data issue you will also need to include either manpower analysis or external reporting to your scope. Before you begin to design your system your group will need to determine how the current processing works (the Activity Diagrams will help you here) and from this formulate a list of required processing the system must support. Once you have determined the requirements you should consider the feasibility of meeting each of these needs. From this discussion your next step is to develop the structural blueprint (Data Flow Diagrams and an Entity Relationship Diagram) of your approach to solving the system request.

As you begin to develop a system that will simplify the process of collecting, organizing and communicating the information required to process background checks and gaming license applications will require more detailed analysis on your part. You have begun to model the processes required through your activity diagram and you will need to continue your analysis by creating data flow diagrams (DFD's) to model the information flow within the system; be sure to verify that you have included all required processing in the development of your approach. Your goal is to develop a system with well-documented procedures, a centralized database, and a standard user interface. Such a system would certainly impact the timeliness and efficiency of the task by making things more process oriented rather than the predominately manual exercise it is now.

PROBLEM

1. **Prepare a Context Diagram for the information system that will support your scope.**

2. **Prepare a Diagram 0 DFD for this system; include subsystems to account for the major areas of processing. Data collection and organization will certainly be an area of focus, include the other major areas of concern or opportunity as expressed in your information gathering.**

3.   **Working from Diagram 0, prepare the necessary lower-level data flow diagrams to describe the processing required to support the focus you have defined in your statement of scope. In other words you are going to focus on the functional decomposition of the processing areas you have chosen.**