TO: Dean Steve Wiltkerbad

FROM: Roger Baumbach II

RE: University Resident Hall Complaint System: Data Flow Diagram

DATE: October 4th, 2013

Dean Wiltkerbad, below this Memo is a Data Flow Diagram which is a visual explanation of the planned University Complaint system. It is a way of preforming process modeling which is used to help one analyze the process that capture, manipulate, store and distribute data between a system and its environment and among the components of the system. This diagram that I have attached is a way of visually seeing the conceptual flow of data around the system and give a rough idea of what style of data we may need to structure and the functions the programming team will need to make in order to correctly produce the Residence Hall Complaint System.

In the system one will notice that there will be a total of 6 outside “agents” who will be communicating with the proposed system. The first of which you will notice is yourself, Dean Wilkterbad. You will be interacting with the system in 3 separate scenarios. Next up is the University Judicial Board and the Office of Public Safety. These agents will be interacting with the system to help solve the problems that arise within the residence halls. Following that is the Residence Hall Directors and the Residence Hall assistants will be interacting with the system for one singular purpose. Next to last will be a Student who has been reported. They will be able to on request, interact with the system for a total of three events, otherwise they will only interact on one occasion with the system. Lastly, we have the Universities Provost Office. They will only hear from the database system on one occasion.

Now speaking in terms of what each agent will specifically do in terms of interaction with the system, there are two types of events between agents: temporal and external. Temporal events are triggered by the server after it has processed data or a specific period of time has come to an end. External events will take place every time an external agent attempts to communicate with the server and pass it data or request for data. On the subject of agents and events, and more specifically you; you will be forwarded each Residence Hall complaint that arises. This event will be a temporal one because it will only happen once the system itself has processed the new grievance request. Next, you will be able to request a list of new grievances from the system during the day which will elicit a response from the system. You first requesting the information will be an external event because it will be triggered by an external agent and the response you elicit from the system will be a temporal event because it will take place after the system has processed your request. In terms of the University Judicial Board they will first be sent a temporal event of all cases that require their immediate attention, next they will send an external response back to the system after they have made their judgment on the case at hand. The Office of Public Safety has four events in which require their presence. First is a temporal event in which a list of criminal offenses will be sent to Public Safety when they are finished being processed by the server. The office will send an external response back to the server detailing the action that had to be taken for each case. Following that, Public Safety will make an external event in which they update the records for each case they deal with and at the end of the month they will make another external event in which they send the system monthly reports that will be stored for federal reporting. Now, Residence Hall Directors and Assistants will both share in the same agent role with the system. They will both participate in an external event in which they send a report to the system detailing an incident that has occurred. Then, the Student who is in question for each case will be dealing with the system as well. They will receive updates about their case each and every time the case is updated. This is a temporal event that happens yet again, after the system has processed the request. That student then will be able to access the database and request the information for their case and where it currently stands. This is an external event because it is initiated by an external agent. The student will then receive information about their case which is sent after the system has processed the request, which is a temporal event. Lastly, the final agent in question is the Universities Provost Office. They will receive a forwarded list from the server once a month that contains the monthly reports that the Office of Public Safety sends to the system. This final event is a temporal one because it sends the information to the Office after it has stored the data in the system for a later occasion so that when needed, they may report it to any federal Berea.

